Exploring participatory action research during the initial phases of the design process

by

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I declare that **Exploring participatory action research during the initial phases of the design process** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references. I also understand what plagiarism entails and am aware of the University's policy in this regard. I did not make use of another student's previous work and submitted it as my own.

4 September 2013

Ms Lizette Carstens **Date**

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CHAPTER ONE: INTRODUCTION

1.1 Context

1.1.1 A social agenda for design

Effective design has the power to improve people's lives. For example, the unique ballot paper used in the first democratic South African elections of 1994, designed with visually clearly identifiable candidates and parties, enabled many poorly educated and / or illiterate people who might otherwise have been unable to participate in the new democracy (Berman 2009:9). Such a design solution bears testament to the power of design to affect people's lives. Yet, many organisations, and smaller businesses in particular, fail to employ and manage design effectively, reaping little economic or social benefit from it as a result (Iduarte & Zarza 2010:21).

Environmental disasters, scarcity of resources, social and economic inequality and an ever-increasing gap between rich and poor have contributed to people worldwide demanding change. Instant access to information on the internet means that more people are better informed than ever and social media, such as Facebook and Twitter, have enabled ordinary people to participate in and demand change as is evident from phenomena such as the dawn of the Arab Spring in Egypt early in 2010[1]. Governments, corporations and businesses who want to survive and thrive in the future will increasingly have to consider the environmental, social and economic impact of their decisions. They can simply no longer afford unsustainable, consumption-driven practices.

Consequently, the design profession too faces new challenges – to create engaging, meaningful design outcomes that address long-term systemic issues and are valued for their positive impact on people's lives and the joy they bring, rather than mere short-term, consumption-driven desire fulfilment (Eisermann, Gloppen, Eikhaug & White 2005:20). The global imperative to create a more sustainable world for all requires designers to approach their work responsibly, strive towards design outcomes that enrich and improve the lives of users and enable users to participate in the creation of their own solutions for their specific problems, rather than outcomes that are mere consumption-driven material objects. In striving towards sustainability, design has a responsibility to create economic,

[1] A revolutionary wave of demonstrations, protests, and wars occurring in the Arab world that began on 18 December 2010 and that has forced rulers from power in Tunisia, Egypt, Libya, and Yemen. The protests have shared techniques of mostly civil resistance in sustained campaigns involving strikes, demonstrations, marches and rallies, as well as the effective use of social media to organise, communicate, and raise awareness in the face of state attempts at repression and internet censorship (Arab Spring 2013:[sp]).

social and aesthetic value (Buchanan 2001:16; Frascara 2001:[sp]; Morelli 2007:5; Eisermann et al 2005:19).

Delivering on these economic, social and environmental responsibilities requires a clear understanding of the design problem, user needs and expectations and the potential social, cultural and environmental impact of the design outcome. This is possible only if the designer has knowledge about the general principles, facts and theories pertaining to methods, processes and contexts in design and is able to apply them in specific situations (Friedman 2003:511).

A part of the increased economic challenge that designers face, is the responsibility to serve their clients' business interests. To meet this responsibility requires a solid understanding of the client's business (Sethia 2005:45; Phillips 2012:[sp]) and thorough management of the design process from start to finish (Bruce, Cooper & Vasquez 1999:315). Access to pertinent information about the client's business may however depend largely on whether the designer is employed to assist in solving a business problem from the outset, or whether the designer is only employed to add aesthetic enhancement to a solution already created by other business units (Paton & Dorst: 2011:573; Phillips 2012:[sp]). Some of the main stumbling blocks for designers to serving business needs appear to be a lack of information due to limited research and development resources or expertise, and a lack of understanding and knowledge of design by the client. This is especially prevalent among small, medium or macro enterprise (SMME) clients (Bruce et al 1999:315; Bruce, Potter & Roy 1995:416; Brazier 2004:69).

Two of the recurring arguments in design management literature that stand out are the importance of managing the design process from start to finish, and the value of a user-based approach (Bruce et al 1999:315; Brazier 2004:69; Liem & Sanders 2011:113; Prahalad & Ramaswamy 2007:80-81). In real life, limited resources, understanding and knowledge often hamper the pre-brief or brief development stage of design projects. This area poses the gap that this study is situated in. As partial fulfilment towards the requirements of a Master's Degree in Information Design[2], this mini-dissertation explores stakeholder participation early in a design project as a means to identify the underlying design problems, and to understand business objectives and user expectations.

[2] A mini-dissertation BKS 854 in partial fulfilment of the requirements for the degree MA Information Design (course work).

The specific focus of this study was prompted by the recurring argument in design management literature that limited resources, understanding and knowledge are particularly large stumbling blocks to the effective use of design by SMMEs (Brazier 2004:69; Bruce et al 1995:416-417). On the other hand, research suggests that effective use of design can contribute positively to business success and competitiveness (Borja de Mozota 2003:88; Iduarte & Zarza 2010:22). To illustrate the relevance of the effective use of design for this study, a short overview of selected literature examines how design services are used in the context of SMMEs.

1.1.2 SMMEs and design

Small businesses play an important role in advancing economic growth and contribute to social and political stability (OECD 1996:10-18). For many people worldwide, establishing an SMME is their only way of making a living. Following the global economic meltdown at the end of 2008 and the current economic crises in the European Union, this rings more true than ever. Large industries in South Africa, such as automotive manufacturers, the textile industry and the mining industry, have had to retrench employees. An official unemployment rate of 25.2% for the first quarter of 2012 from Statistics South Africa (Key economic indicators 2012: [sp]) is proof that jobs are hard to come by and many people end up starting SMMEs, either as part of their previous employers' retrenchment and redeployment programs, or on their own.

Fast-moving and flexible, SMMEs' biggest competitive advantage over larger organisations may be in terms of innovation – provided they are able to use and manage design skills effectively. Smaller organisations with a collegial organisational structure often have a sense of collective purpose realising that all may profit directly from innovation, therefore noticing, valuing and adopting ideas and originality more readily (Iduarte & Zarza 2010:22).

Behind innovation lies a culture where design is recognised as an important resource and where divisions between design and other business units are removed. When a business is able to integrate design as part of the business process from the outset, it can move away from copycat products where design is only added as styling, to truly innovative products that enrich and improve the lives of users (Beverland & Farrelly 2007:10).

How well SMMEs understand the commercial benefits that design may offer and how effectively they are able to employ and manage design, may play an important role in their success (Beverland & Farrelly 2007:10; Iduarte & Zarza 2010:22; Borja de Mozota

2003:98). Managers need to know where and how to source design expertise, how to clearly formulate objectives and how to assess and evaluate different design outcomes. SMMEs, with their typically small and flat organisational structures, often do not have the time or the budget to acquire, train or develop such skills before embarking on a design project, thus they learn while doing (Brazier 2004:69; Bruce et al 1995:415).

Unfortunately, many small businesses lack awareness of the commercial impact that investment in design can have on their business performance and therefore regard design as an expensive risk to be taken on once-off projects. Designers who work on such projects are seldom given enough time or resources to get to know or understand the client's business (Bruce et al 1995:415-417; Iduarte & Zarza 2010:21). Other factors preventing SMMEs from regarding design as a business resource are problematic client-designer relationships and the inability to measure the economic value added by design (Bruce & Docherty 1993:415-420; Bruce et al 1995:403; Bruce, et al 1999:297; Brazier 2004:61-63).

Margaret Bruce, Professor of Design Management and Marketing at the Manchester School of Management, and Catherine Docherty, Programme Director at the Institute of Design Innovation at the Glasgow School of Art, (1993:415) identify specific stumbling blocks to developing a long-term client-design relationship. Firstly, designers sometimes focus solely on aesthetics, striving only to create beautiful design. A lack of commitment by the designer to understand the client's (and ultimately the customers') needs may lead to ineffective design solutions. Secondly, a lack of mutual trust and respect between a designer and the client may cause the client to approach design as a risky once-off expense, thereby impeding consistency of approach, cross-pollination of ideas and transfer of knowledge between the client and the designer.

Organisations that employ design as an integrated strategic resource generally perform better, but designers often lack the vocabulary to talk about design in business terms. Therefore, they are often unable to demonstrate its economic value and thus fail to convince clients of the value to establish design as a resource (Borja de Mozota 2006:47).

Under these circumstances, collaboration with the client to develop a comprehensive design brief[3] that identifies the design problem, formulates business objectives and explores possible design strategies may greatly benefit the client and the designer, not

[3] A design brief is a set of instructions from a design client pertaining to the design project. In practice design briefs can range from a casual verbal instruction, to a formal written document (Phillips 2012:[sp])

only in terms of design outcomes, but also in terms of learning that occurs (Bruce & Docherty 1993:419-420; Brazier 2004:63-65; Phillips 2012:[sp]).

Bruce & Docherty (1993:418) point out that participation in the design process could result in a client being more aware of the commercial benefits of design and therefore employing design skills more often and on a more continuous basis. A client's design management skills could improve, leading to enhanced co-operation and even collaboration between design and other business units, which in turn could result in enhanced innovation (Bruce & Docherty 1993:418-420; Phillips 2012:[sp]).

To summarise, two recurring arguments in literature about SMMEs' use of design are, firstly, that effective use of design has a positive impact on business success and competitiveness. Secondly, that business managers need to understand design and be able to brief, manage and evaluate design for it to be effective. Existing literature also suggest that client and user participation in the design process may advance understanding and design management skills.

1.2 Research problem

Limited resources and lack of understanding and knowledge often hamper the pre-brief or brief development stage of design projects. In an ideal situation where the client is experienced in buying and managing design, each design project starts with a clear design brief. This brief is a written document that describes the problem or opportunity that needs to be addressed, lists the functional objectives that the design outcome has to achieve and defines the target audience or users in terms of a geographic, demographic and psychographic profile.

In design projects for smaller or less experienced businesses a formal brief may be absent. As a senior designer in a small design consultancy, I have observed a two-fold problem that often leads to ineffective design outcomes, frustrated designers, disillusioned design clients and dissatisfied customers, as illustrated in Figure 1.

Firstly, design briefs from SMME clients such as these, often lack clear design objectives. Design may be regarded as a cosmetic finish, or conversely, the client may hope to address complex problems with a quick design fix, for example trying to address a workplace safety problem with only a few posters.

Secondly, limited resources such as research and development budgets, often lead to insufficient information about user[4] needs and expectations, impeding the designer's ability to understand and consider potential interaction with, and impact of, design outcomes.

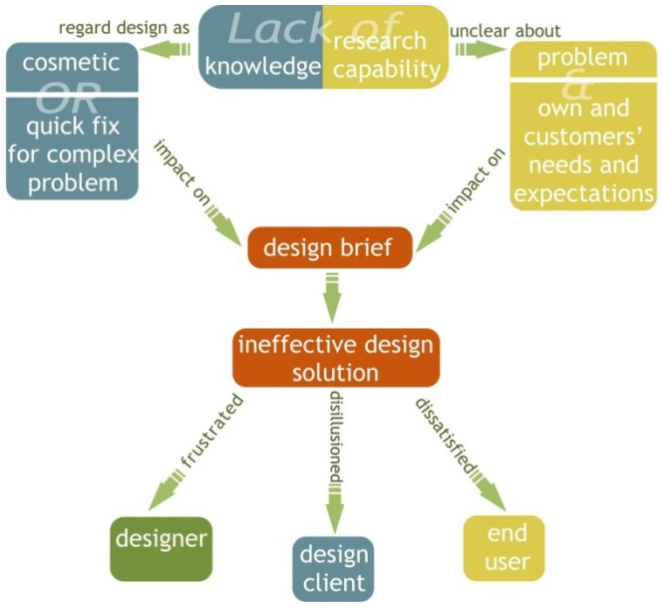

Figure 1: Mind map by author to illustrate the research problem.

Literature about developments in various approaches to design research suggest that participatory action research (PAR) may be able to address both issues, as seen in chapter three. PAR has the potential to shed light on the design problems and stakeholder expectations within a specific context *and* simultaneously expand and develop existing design knowledge (Kujala 2003:15-16; Liem & Sanders 2011:113; Cole, Purao, Rossi & Sein 2005:3).

User participation during the early stages of a design project may offer unexpected, but useful insights into needs and expectations, interactions with various design outcomes and could inspire new innovative outcomes that enrich users' lives (Sanders 2002:[sp]; Eisermann et al 2005:19; Prahalad & Ramaswamy 2000:80).

Client participation can improve the client's understanding of design and advance design management skills within the client organisation (Bruce & Docherty 1993:416; Jevnaker 1993:391-392; Phillips 2012:[sp]). Collaboration and participation also improve the

[4] In this study the term *user* refers to the end-user or consumer of the design outcome and is usually the design client's customers. The term *client in this study* refers to the design client who commissions a design solution from the designer.

designer's knowledge and understanding of the client's business and of user needs and expectations, enabling him or her to create effective design outcomes that address the client's business problem and that are valued by users (Phillips 2012:[sp]).

1.3. Aims and objectives

1.3.1 Aims

The aim of this study is to explore stakeholder participation early in a design project as a possible means to identify and understand design problems, discover user needs and expectations and explore potential solutions offered by participants in order to supplement available information and support the development of a design brief. Stakeholders refer to the designer, design client, the design client's sales consultants and the end-users. This exploration is limited specifically to the context of small SMMEs with a flat management structure, businesses who have limited knowledge and experience of commissioning and managing design and whose annual turnover does not allow for formal market research.

1.3.2 Objectives

In order to accomplish the above aim, specific objectives have been identified and are dealt with in the following chapters. The first objective is to identify and theoretically explore participatory approaches with specific focus on PAR in the context of design. Part of this objective is to establish a practical research approach suitable for application in the context of a SMME design client with a limited budget and experience. The second objective is to use this PAR framework to practically investigate the use of stakeholder participation in the pre-brief and brief development stages of a design project.

1.4 Overview of research process and chapters

The first phase of this study is literature-based. To provide some background, selected literature about the various phases of design as a problem-solving process and about the impact of the expanding domain[5] of design on the need for and importance of research is examined and discussed in chapter two. Chapter three presents a review of literature concerning developments in design research and specifically in participatory approaches to research. The purpose of this investigation in chapters two and three is to frame the research problem and to form the basis for the practical exploration.

[5] Pluralism and the fast pace of change in the contemporary world have brought about an expansion of range complexity in the problems that designers have to face in their work, impact on the role of design and designers.

Chapter four follows the author's own practical exploration of stakeholder participation during the pre-briefing and briefing stages of a design project involving a long-standing SMME client, the client's staff, customers and the designer.

This practical exploration is situated in a real-life studio context with the designer, who is also the owner, senior designer and creative director of The Image Foundry. For the duration of the practical exploration as described in chapter four, the designer in question, who is also the researcher, assumes the role of a subjective participant – in keeping with the basic approach of participatory research. Strict adherence to basic ethical principles and rigorous documentation of a systematic, structured process ensures the reliability of this 'case of one' study. The study documents and discusses an actual project for a client. The client is selected using specific criteria as explained in chapter four.

The practical exploration as discussed in chapter four consists of a three-phased process. Pre-phase one presents the client's first design commission, which is no more than a simple e-mail stating a need. The first phase involves a semi-structured interview with the client to obtain a general idea of the business and the project. This is followed by the documentation and analysis of the interview in terms of project scope or design problem, business portfolio, industry, competitors, target audiences, budget and timeline. Phase one concludes with an initial creative proposal detailing a creative strategy and project timeline.

Phase two involves the participation of the designer, design client, randomly selected sales consultants and customers in workshops based on Open Space Technology[6] principles, to identify any issues or problems with the products in question and to propose solutions to these issues. Workshops and workshop outcomes are recorded and documented.

Phase three commences with the collation and analysis of information gathered in the previous phases, to which the designer adds her own knowledge based on her experience as practicing senior designer and manager of her own small business. The analysis of outcomes and synthesis of available information with existing, experience-based knowledge makes the development of a comprehensive written brief possible. Phase three therefore concludes with a brief / creative proposal describing the project, design problem, industry, business portfolio, competitors, target audience profile, target audience needs

[6] A description of Owen's Open Space Technology is given in chapter four in a discussion of the practical exploration component of the study.

and expectations, business objectives and a creative proposal detailing possible design strategies and a project timeline, written by the designer.

In chapter five, the designer steps back and assumes the role of objective researcher. Key issues from the final brief are highlighted and discussed, after which the impact of outcomes from the practical exploration on the brief development process is reviewed. Subsequently, the briefs from all three phases are compared and evaluated, based on the grounded theory method, against preset criteria discussed in chapter two. Criteria for validity according to Archer (1995:1)as discussed in chapter two, demand that research should be inquisitive, should seek to find answers to questions, and should be goal-directed, based on the identification of an issue or problem worthy and capable of investigation. Chapter five offers the designer's own critical reflection on the case study, examining whether the study offered answers to questions about user needs and expectations and/or potential solutions to the practical issues of design practice as set out in the problem statement. This reflection is framed against the background of increasing social, economic and aesthetic responsibilities on designers and the expanding domain of design.

Chapter six is a critical reflection on the research process. This chapter evaluates and measures the validity of the approach followed in chapter four against specific, pre-determined action research criteria from selected literature as discussed in chapter three. This chapter reflects on whether the research approach followed demonstrates sufficient rigour. Implications of the study for design practitioners, SMME design clients and design researchers are examined to establish whether the approach followed for this study was able to elevate what would normally be mere project-based information to some form of knowledge that can potentially contribute to design practice and / or research in general. In conclusion, chapter six highlights the significance of this study for future research, pointing out questions raised and potential theories open to further exploration and research.

CHAPTER TWO: RESEARCH FOR DESIGN

The nature of design and design research serves as a theoretical introduction for this study. Combined with a short discussion of the design process and the importance of the design brief in this process, the introduction to this chapter offers a background against which studio research (referred to as 'research for design' in this study), is explored.

Questions such as what research for design entails, why information gathering is required in the design process and how a designer may gather and process said information to arrive at a possible design solution are addressed. A clear distinction is drawn between studio research (research for design), and academic design research. Buchanan's design matrix is used as a framework for exploring the impact of factors such as the expanding domain of design, level of design expertise, organisational approach to design and the designer's role in framing[7] the problem and solution spaces of the project on the shape that research for design might take.

The commercial benefits of the effective use and management of design and the reasons why some organisations, especially SMMEs fail to reap these benefits are explored to illustrate the importance of research for design from a business perspective. The design brief and the designer's role in framing the problem and solution spaces during the development of the brief are discussed to illustrate the importance of research, especially during the early stages of the design process. Lastly, as background to chapter three, the social role of design is considered in more depth as a motivator for participatory research approaches in the design process.

2.1 What is design?

In order to establish what design research in its many forms is, one would firstly need to establish what design is. Many widely varying, contrasting and sometimes contradictory definitions have been offered, but the definitions most suitable to the context of this study share three attributes: Firstly, these definitions refer to design as a social activity, secondly, design is described as a process involving conception planning and execution and thirdly, the process is defined as goal-oriented with the aim to solve human centred problems, meet human needs, and improve situations (Simon 1996:112; Buchanan 2001:9 and Friedman 2003:508). Herbert Simon's (1996:129) definition can be regarded as a

7 At the outset of a project, the client and the designer each has an initial perception or frame of what is appropriate, admirable and possible, based on their own prior experience and backgrounds. Reframing these perceptions during the development of the design brief is valuable in establishing a common understanding of the problem and possible solutions. Reframing involves negotiation and or collaboration between the client and designer (Paton & Dorst 2011:575).

good departure point for this study: design as a process by which we "…devise courses of action aimed at changing existing situations into preferred ones."

2.2 The design process

Design involves an iterative process of research, inspiration, discovery, prototyping, testing and implementation. Tim Brown (2008:88), CEO of innovation and design firm IDEO and respected speaker on the value of innovation and design thinking to business people, describes the design process as a system of three demarcated spaces, each with related activities, rather than as a series of orderly steps; illustrated in Figure 2. Phase one, the inspiration phase, is exploratory in nature and information – that may appear to be random – is gathered, observations are made, questions are asked and ideas are discussed, elaborated or rejected (Swann 2002:52, Brown 2008:88). Idea generation activities occur during phase two, the ideation phase when the designer explores and develops different conceptual ideas based on the brief. Phase three, the implementation phase, represents the final execution of ideas generated and tested during phase two.

Brown's model (Figure 2) is further developed by Stella Tan and Gavin Melles (2010:465). They subdivide the inspiration phase into brief development and interpretation of the design problem, and the conceptual ideation phase into idea generation and presentation (Tan & Melles 2010:465). This expansion of Brown's model is useful for this study as seen in the next section to explain typical activities during the initial phases of the design process.

At the start of a project, the problem or opportunity that motivates the search for a design solution may not be clear. In section 2.1, design is defined as a problem-solving process. To deliver effective design outcomes, a designer absolutely has to understand the problem that needs to be addressed. This can be achieved with a good design brief.

A design project will pass through the three phases of design as seen in Figure 2, looping back several times from one to the other – especially the initial inspiration and ideation phases – as more information is needed and / or incorporated to refine the design (Brown 2008:88).

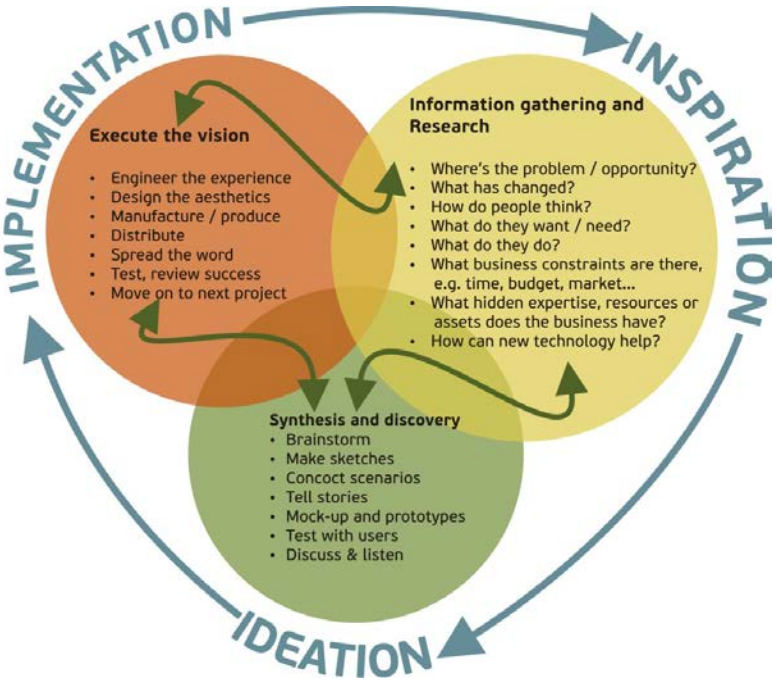

Figure 2: Model of the design process. (Brown 2008:88)

During phase two, idea generation activities occur and the designer explores and develops different conceptual ideas based on the brief, to present to the client. However, a search for information to support the development of ideas is essential to this phase of the design process. The designer may be experimenting with a possible design outcome, and then stop midway to search for information to support further development of an idea. Sometimes, based on new information, the brief may need to be revisited and revised, leading to an idea being discarded and the designer starting over again (Tan & Melles 2010:473). Phillips (2012 [sp]) concurs with Tan & Melles (2010:473) that even a well-written design brief is not set in stone, but a living document which may be revised, provided that the revisions offer a better solution to the problem.

During phase two, specific, problem-related information is synthesised into ideas or possibilities in order to develop and affirm design strategies or directions that were identified during the inspiration phase. Brainstorming sessions typically occur during ideation and ideas are exchanged and discussed. Prototypes are made, tested and rejected or refined. All of these serve to arrive at a vision of a solution which can be presented to the client and which may be executed during the implementation phase.

After idea generation, a designer usually prepares to present these initial ideas to the client. This preparation involves the refinement of ideas into visual or tangible prototypes

and the communication of the rationale behind the ideas and visual appearance to the client, which may be done formally in a written creative proposal or through informal discussions during a meeting with the client. At this point, information gathered earlier and agreed upon in the design brief can be crucial to defend conceptual and design decisions. Showing that design decisions were based on concrete information can help to convince the client that the designer's solution will meet his design requirements and enables the designer to defend design decisions, which the client may not otherwise accept (Phillips 2012:[sp]).

Professor Ken Friedman, Distinguished Professor of Design at Swinburne University of Technology in Melbourne, Australia, further emphasises the benefits of research during the design process, arguing that the designer fulfils various important roles, namely: As analyst who discovers problems or work with them in the light of a brief, as synthesist who solves problems, as generalist who understands and organises the range of talents needed to address the specific problem and as critic whose post-solution analysis evaluates whether the correct problem has been solved. All of these roles involve the application of some information that could only be achieved through research for design (Friedman 2003:511).

After the client presentation, the design process usually moves into phase three, which is implementation. Ideas that were presented and accepted are refined and tested, and the final outcome is produced. Although the design solution is completed in principle at this point, the designer's involvement does not necessarily end at the implementation phase. The designer might need to be involved in the production process, for example, when the design solution is a printed artefact, the designer might need to supervise and manage the printing process. Many other stakeholders such as technicians, engineers and sales assistants, may have a primary role to play in this phase, but yet again, identifying these stakeholders and getting their input from the outset when drafting the design brief can save time and cost and prevent costly design mistakes (Phillips 2012:[sp]).

2.2.1 The design brief

As mentioned earlier, a good design brief is essential to the designer's understanding of the design problem and objectives. In reality, a design brief is occasionally more a source of frustration than an aid to the designer. Sometimes the designer is handed a brief at the first meeting with the client. At times, such initial briefs do not contain all the information really needed by the designer, partly because the client may regard design simply as a decorative function, or because the client simply does not regard some information as

relevant or even pertinent to the design solution. The designer also rarely has the opportunity to have a meaningful discussion about the brief with the person who drafted it in the first place. The responsibility for an effective design solution rests with the designer however, so designers should ask or search for the information they need. Peter Phillips (2012:[sp]), internationally recognised expert in developing corporate design management strategies and programs, explains that a good design brief is developed and written in a partnership between the client and the designer.

During phase one of the design process, an attempt is made to identify and understand the specific problems or opportunities motivating the search for solutions and to determine and interpret the parameters of the design brief (Brown 2008:88; Phillips 2012:[sp]). In more formal client-designer relationships the client often supplies a design brief and the designer answers with a written proposal to the brief. Less often and usually in more informal client-designer relationships, the client and the designer might jointly develop the brief from the outset. Usually a designer's first formal contact with a client is used as an opportunity to discuss the objectives, parameters and boundaries of the design project (Tan & Melles 2010:468). The outcomes of this discussion could be regarded as a the first draft of the design brief, which should then be given to all stakeholders in the project, for example, the designer, project manager on the client side, marketing specialists, sales executives, and technicians, for their input in order to agree on a final brief (Phillips 2012:[sp]).

No single or correct format for a design brief exists – a brief may be a detailed bulleted document, a narrative or even a PowerPoint presentation, but a useful design brief is a written understanding between the partners in a design project containing all the information and data necessary for every stakeholder in the process. An effective design brief that includes both a business and design strategy provide common ground between the client and the designer and serves as a valuable project tracking tool, providing criteria for measuring the success of the design solution (Phillips 2012:[sp]). He suggests that a useful design brief should address six basic areas, namely a project overview, category or industry overview, target audience review, company portfolio, business objectives and design strategy and project scope, timeline and budget (Phillips 2012:[sp]) These areas are applied in chapter five of this study as criteria for evaluating the individual design briefs developed after each phase of the practical exploration.

Project overview and background: This section should clearly articulate the scope of the project and the problem that needs to be addressed, state the business needs and

objectives, describe the desired outcomes and last, but not least, identify project owners and team (Phillips 2012:[sp]; How to write an effective design brief [sa]:[sp]).

Category or industry review: Category refers to the specific industry in which the product or service is involved. Although this might seem like stating the obvious, a closer inspection might reveal a more complex picture. A product or service may be involved in several industries, each with its own unique expectations and demands. For example, a company that designs and builds aircraft is in the aircraft industry. Their primary clients are airlines who expect reliability, capacity for specific numbers of passengers and cost efficiency. However, airplanes are only useful to airlines if passengers who are in need of transportation want to fly in them. Passengers expect safe, comfortable and fast transportation. In the end, the airplane manufacturer is involved in the aircraft, airline and transportation industries. If a designer is to deliver design outcomes that recognise the needs and expectations of all stakeholders, shouldn't he / she be aware of all the industries he / she is designing for? Typical issues that should be addressed in this section include a list and description of all products that are to be included in the project, a description of the pricing and promotion methods used for each of the products, and a description of all major competitors. Relating all the products to the organisation's brand strategy and overall business strategy could be valuable for the designer in making design decisions that support these strategies (Phillips 2012:[sp]; How to write an effective design brief [sa]:[sp]).

Target audience review: In a complex global marketplace a project is usually aimed at multiple audiences. Very seldom does a one-size-fits-all approach accommodate the needs of various cultures and the social backgrounds of different audiences. It is important that the designer understands all target audiences and therefore a comprehensive, detailed target audience description is critical (Phillips 2012:[sp).

Company portfolio: This section describes the company and its activities as completely as possible and indicates the ways in which the particular design project should be integrated with the company's portfolio of other products and / or services. Being aware of this at the outset of the design process could lead to real inspiration and innovation as this enables the designer to consider the bigger picture when making design decisions (Phillips 2012:[sp]; How to write an effective design brief [sa]:[sp]).

Business objectives and design strategy: For a design outcome to be truly effective, it must solve a problem. If a problem exists and a solution is required, then the business

objectives of the solution also need to be articulated clearly. Only when there is a clear understanding of the business problem and the objectives that the solution needs to meet, can a coherent design strategy be developed. A design strategy forms the basic contract between the client and the designer, stating what needs to be achieved and how it will be done. Agreeing on objectives and a strategy can eliminate many misunderstandings during the design process. This section serves to enhance the designer's understanding of the business problem and could improve the business manager's understanding of the design process (Phillips 2012:[sp).

The 'nitty-gritty' – project timeline and budget: This part of the brief provides the road map for the way ahead. It ensures that everyone involved has a clear understanding of every phase of the project. It can also serve as a tool for the designer to negotiate more realistic timeframes and budgets for a project, and to educate the client about the detail involved in executing the project. The activities belonging to each phase and the timeframe required to complete them should be described in detail. Those who will be involved in each phase need to be identified, and the approval process for each phase (when, how and who) should be specified. Lastly, the budget required for each phase should be stated (Phillips 2012:[sp]; How to write an effective design brief [sa]:[sp]).

A good brief focuses on the desired results of the design outcome, not only on aesthetics. A poorly prepared brief with insufficient information and unclear objectives will lead to design outcomes that fail to meet client expectations, decreasing the likelihood of such a client ever benefitting from the competitive advantages that design may offer (Iduarte & Zarza 2010:22). Some clients, especially from smaller firms, may not always have sufficient information available on all areas needed to compile a good design brief due to limited research and development resources or expertise (Bruce et al 1995:403-407). Liz Sanders (2002:[sp]) a pioneer in the use of participatory design methods and the founder of MakeTools, a company that explores tools for collective creativity, strongly feels that a participatory research approach involving the client, his or her staff, customers and the designer may be useful in these circumstances to search for useful information.

2.3 What is research?

The noun research means, "1: careful or diligent search, 2: studious inquiry or examination; especially: examination of facts, revision of accepted theories and laws, or practical application of such new or revised theories or laws, 3: the collecting of information about a particular subject" (Merriam-Webster 1993:1002). Research primarily means to thoroughly and methodically look into or over with the aim of searching for

general principles, theories or laws and / or their practical applications or laws to specific classes of problems, or to specific situations (Friedman 2003:508).

Buchanan(2001:3-23) provides a useful overview of the different categories of research. Design research may be basic, applied or clinical. Basic research involves the search for general principles or laws that have a broad application – often beyond their field of origin. Basic research is rare in the design (workplace), but it is critical to the future of the field, because basic research seeks to establish the guiding principles that connect design with other fields (Buchanan 2001:19).

Applied research adapts or applies the general laws or principles of basic research, to specific groups or classes of problems. The goal of applied research is to discover general rules of thumb that account for a specific class of phenomena (Buchanan 2001:18). More basic and applied research is critical to develop and improve understanding of design, and to enable design practitioners to continue meeting the ever-increasing challenges and complexities of the design arena (Buchanan 2001:19).

The third category of design research is clinical research that involves specific cases, focuses on solving a specific design problem and takes place in the workplace. For the designer it is essential to gather whatever information and understanding may be necessary to arrive at a specific solution. This is the form of research that design practitioners are most familiar with and is referred to as research for design or studio research, which is described in more detail in the next section. Clinical research may generate questions that become the subject of basic and applied research (Friedman 2003:510). This study is such an example, where a real life studio 'issue' becomes an academic area for applied research.

2.4 The dual nature of research in design

Studio research as part of the real life design process or research for design[8] differs from academic design research in terms of its aims. The aim of academic design research is to develop an accessible, robust body of knowledge that enhances our understanding of design principles, processes, methods and contexts. Academic design research focuses on the meticulous and systematic gathering and analysis of facts with the purpose of

[8] In this study the term 'research for design' is used to refer to clinical research as part of the design process in real life, practice-based design projects.

informing specific areas of design in a way that is broadly and generally applicable (Press & Cooper [sa]:1; Cross 1999:9; Friedman 2003:510).

Bruce Archer, late Professor of Design Research at the Royal College of Art and one of the founders of design as an academic discipline, identifies five basic criteria that research should comply with to be valid (Archer 1995:1): Firstly, research should be systematic and methodical, conducted in a disciplined manner according to a plan. Secondly, research should be inquisitive, seeking to find answers to questions. Research should be goal-directed, based on the identification of an issue or problem worthy and capable of investigation. Research should be knowledge-driven and the findings of the inquiry must go beyond mere information. Lastly, research findings should be communicable, located within some framework of understanding for an appropriate audience, and testable. Although research for design may be inquisitive and goal-directed, time and budget constraints, as well as project-specific circumstances may not necessarily be methodical and rigorous, nor is it necessarily knowledge-driven. Even when communicated to the wider design community, the presentation is often anecdotal and lacking in sound theoretical frameworks (Dorst 2008:6)

Research for design is a journey of discovery and information gathering, touching on various subjects and choosing from them aspects relevant to understanding the specific design problem or to creating effective solutions for the problem. The aim of research for design is to analyse available information in order to synthesise possible concepts and to create effective design outcomes, rather than to develop knowledge (Swann 2002:53). Filmmaker and critic, Minh-Ha Trinh in Swann (2002:53) suggests that research for design is an excursion that departs from what is known, in order to find the unexpected.

In summary, research for design is a journey of discovery which may depart from established knowledge, synthesising a variety of data from various sources across many disciplines to arrive at possible design solutions (Mahdjoubi 2003:1-5). The differences between academic research and research for design are further explored in the next section and are constantly kept in mind and reported on throughout this study.

As illustrated in the model of the design process in Figure 2, research for design is iterative and co-incidental with designing. Tan & Melles (2010:474) tracked the activities designers typically engage in during the various phases of the design process and found that these activities are often iterative, opportunistic and coincidental. The process has little or no

chronological order and just enough research is done to enable the designer to complete the design process.

Some design practitioners fail to even recognise research for design as a part of the design process, relying on implicit knowledge gained from practice and often working so intuitively as to be unaware that they are doing research (Rosenberg 2007:7). The anti-intellectual culture prevalent in design education until approximately a decade ago, and still prevalent in many design practices, has also contributed to designers often failing to see the relevance of research to their work (Press & Cooper [sa]:15). According to the International Design Alliance (IDA) World Design Survey Pilot Project's South African Findings (2010:62), research is regarded by many designers as one of the least important prerequisites for successful design.

Data gathering and analysis as part of research for design are sometimes done by external researchers such as market researchers, ethnographers, sociologists or psychologists. This research conducted by non-designers may be useful, but it can also be limiting for the designer. Designers focus on the solution, and research for design done by the designer include design specific forms of research such as discovery, observation, analysis, adaptation, rejection and or adoption of data (Swann 2002:54). In addition, designers use their implicit or tacit knowledge[9] during research, constantly combining own knowledge and understanding with the new information. Therefore, designers often are not even aware that they do research; they regard it as some form of exploration (Swann 2002:54).

Some design practitioners argue that research for design equals academic design research, because knowledge is contained in and evident in the design outcome (Friedman 2003:519). They argue that the design outcome is based on knowledge – albeit tacit knowledge. While tacit knowledge is an important aspect of design practice, other aspects such as general principles, facts and theories pertaining to methods, processes and contexts in a specific clinical situation are also applied in practice. Design practice sometimes generates questions that may form the basis of applied or basic research. As a

[9] **Tacit knowledge** (as opposed to formal, codified or explicit knowledge) is the kind of knowledge that is difficult to transfer to another person by means of writing or verbalising it. For example, stating to someone that London is in the United Kingdom is a piece of explicit knowledge that can be written, transmitted, and understood by a recipient. However, the ability to design, speak a language, or use algebra, or complex equipment requires all sorts of knowledge that is not always known explicitly, even by expert practitioners, and which is difficult or impossible to explicitly transfer to other users. While tacit knowledge appears to be simple, it has far-reaching consequences and is not widely understood (Tacit knowledge 2013:[sp])

result, design theory develops in part from design practice. However, it is not practice itself, but rather systematic, methodical and critical inquiry into practice (and many other issues) that constitutes academic design research (Friedman 2003:520-522).

A broad understanding of research-based principles, facts and theories therefore provides the designer with a background stock of knowledge on which to draw when creating design outcomes. Although developing a broad background stock of tacit knowledge is possible and common among designers, it may take many years of practice. In contrast, a solid foundation of research-based knowledge gives the designer immediate access to the overall experience and cumulative results of many other minds from a far broader field (Friedman 2003:511; Press & Cooper [sa]:3).

In practice, research-based knowledge can be crucial to the success of the design outcome and the designer's ability to satisfy clients. When working on projects with a limited margin for error, research-based knowledge can be used strategically to shorten development time, prevent reworks and maximise the effectiveness of the design outcome (Press & Cooper [sa] 4-6). Examples of such projects could be when the design outcome could have a far-reaching impact, such as a ballot paper, or where the project budget is extremely limited, such as a small start-up business.

Design practice is always located in a specific, clinical situation within a very specific context. The designer's task is to solve problems for clients and design solutions in a way that is appropriate and emphatic to the specific context (Friedman 2003:511). An increasing awareness that design outcomes are situated in and impact on the lives of individuals, societies and cultures, means that our understanding of these contexts has changed dramatically (Buchanan 2001:14). The need to consider the impact of design outcomes on specific contexts provides a strong argument for the importance of research skills and training for the professional designer.

2.5 Research in the widening domain of design

The shape(s) that research for design take(s), may vary hugely from project to project and will depend on several factors. The design objectives and scope of the project, the level of expertise of the designer, how design is typically used in the client's business structures and the designer's role in framing the problem and solution spaces during the development of the brief, will all influence the type of research for design. For example, a routine project such as a pricelist revision doesn't require any research. An organisation that uses design solely as aesthetic enhancement may require the designer to simply

make products look good, resulting in research pertaining to shapes, textures, and colours. If the client's objective is to encourage safe behaviour on roads though, information pertaining to the profile of road users and their attitudes and beliefs, existing traffic control systems and law enforcement systems may all be relevant (Frascara 2001:[sp]; Phillips 2012:[sp]; Paton & Dorst 2011:577-578).

The impact of these varied factors on research for design is explored below in the context of the widening domain of design. Seminal design author, Richard Buchanan, developed a design matrix as part of an exploration on pluralism, the changing world and the changing role of design and the designer.

This matrix (Figure 3), appears as the framework for several articles spanning over a decade. On one axis Buchanan (1998:13) describes four orders of design activities that are common to all design professions and applications, namely communication, construction, strategic planning and systemic integration. The other axis of the matrix lists specific human design abilities, namely inventing, judging, deciding and evaluating. The domain of design includes all areas where these abilities intersect with the orders of design. The design matrix can be described as the history of the discipline of design thinking, but also as the developmental career path of a designer (Buchanan 1998:13). It is important to note that these historical and career developments do not mean that design or a designer progresses from one order to the next, but rather that design or the designer's activities expand to include more orders. In other words, even when design activities are situated in the fourth order of the matrix, design and designers still continue to function in the other three orders as well, as and when applicable. Not all design problems require process or systemic integration. Designers' responsibilities are influenced by social, cultural and economic changes, which in turn influence the domain, scope or order that design activities are focused in at a specific point in time.

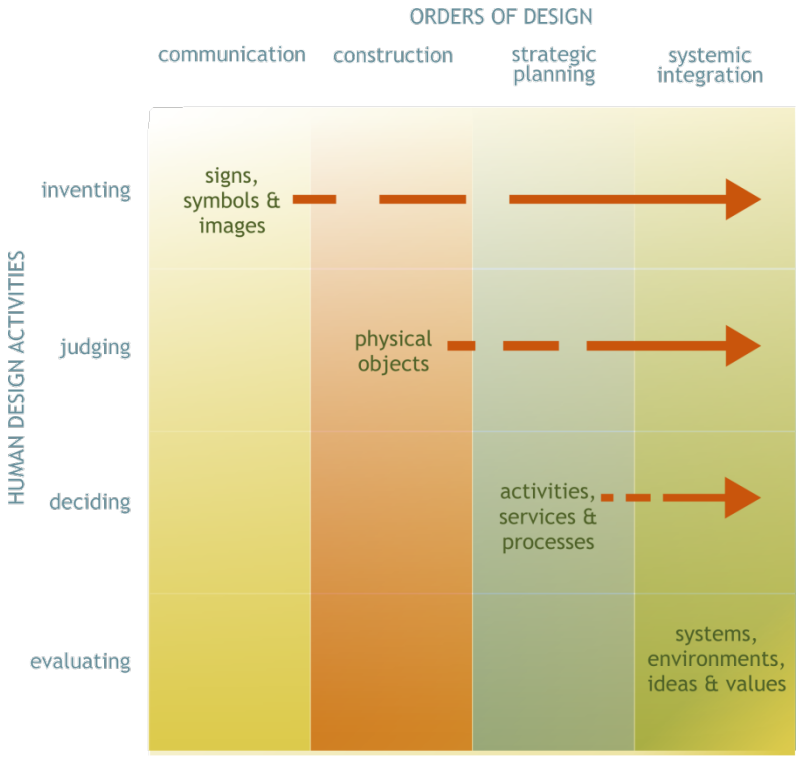

Figure 3: Buchanan's design matrix (Buchanan 1998:13)

If one is to step back and look at historic developments in design over the past century, it is clear that the focus of design efforts has expanded significantly, bringing about an evolution in design objectives, prompting the need for an ever-increasing variety of information gathering tools and methods.

2.5.1 Design in the first and second orders

Profound social, economic, industrial and technological changes in Europe towards the end of the nineteenth century required a departure from the elaborate, heavily decorative hand-crafted forms used in, for example, Victorian ironmongery, to serve industrial mass production and the new materials and technologies available (Cornell 1983:373-401). Design professionals from various design disciplines, such as architecture, typography, industrial and graphic design, as well as artists explored abstract and reductive drawing and geometric shapes to serve modernist industrial needs (Meggs 2011:210-284). Design activities were mostly situated within the first and second domains of Buchanan's (2001:13) matrix.

Looking at the development of design expertise during a designer's career, Dorst (2008:8-9) identifies six levels of design expertise, each of which can be fitted across Buchanan's four domains of design. Some levels may be present in more than one domain. As

designer expertise develops, a gradual shift from one domain to the next may be discernible (Dorst 2008:4-11).

A *naïve* level of expertise is found among ordinary people not involved in professional design activities, but still performing some design-like tasks. *Naïve* designers do not understand that design is a series of activities aimed at solving a problem. They treat design as a once-off choice from a set of perceived solutions ('I want to make something that looks like that' (Dorst 2008:8)).

A *novice* designer may be a design student or a designer at the start of his or her career who understands design as a formal process. He or she will apply basic principles and guidelines as strict rules to deal with the problem, without really relating the rules to the problem at hand. Design expertise is typically limited to the first order of design, where design is used as styling.

Advanced beginners are aware that exceptions to the rules might apply depending on the situation, and develop their own range of schemata or prototypes to apply in different situations. This level of expertise is common to activities in the second order of design. The effects of the other three levels of design experience (expert, master, visionary) are seen in the third and fourth orders of Buchanan's model and are explained in the following section.

The design ladder, a model structuring the demand market for design services (how organisations use design), also shows a close resemblance to Buchanan's design matrix and identifies four distinct ways in which organisations might use design, namely non-design, design as styling, design as a process and design as strategy (The Austrian design ladder 2006:2).

Organisations on the first (non-design) and second (design as styling) tiers of the design ladder engage in activities within the first and second orders of design. They are unaware that design is a problem-solving process and do not regard design as a separate, specific task. They view design as an aesthetic enhancement, only to be added at the end of the product-development cycle. This final styling might in some cases be performed by designers, but in many cases by people who have no design-specific training. The needs and expectations of end-users are of little or no importance (The Austrian design ladder 2006:2). The third and fourth tier approaches to design are related to activities in the third and fourth orders of design and are discussed in those sections.

The designer's level of expertise and the design client's approach to design intersect when a client first approaches a designer with a specific design project. At the outset of the project, the client and the designer each has their own initial frame of the design problem. The client's frame is usually based on his knowledge of the business context, while the designer will frame the problem in the context of his professional design knowledge (Paton & Dorst 2011:573; Phillips 2012:[sp]).

Reframing the problem to establish common ground from which to tackle the problem involves negotiation and collaboration between the client and the designer to develop a new shared frame of the problem and usually occurs during the briefing process (Phillips 2012:[sp]). What role the designer is allowed to play in reframing the problem, is determined by the client's approach to design, and the final frame from which the designer is required to work impacts on the order in which design activities will be focused (Paton & Dorst 2011:574-575).

When working for an organisation using design as styling only, a designer will typically be given a tight instruction with little or no opportunity for negotiation about the design problem or possible solutions. The client knows what he wants and the designer is brought in at the end of the project's formulation as technician or facilitator expected to carry the brief out to the letter (Paton & Dorst 2011:575).

First and second order design research activities focus on the envisaged artefact, its form, function, materials and manner of production. The level of expertise required involves a basic knowledge of tools, methods and techniques, and which would be most suitable to the specific design problem (Golsby-Smith 1996:12; Dorst 2008:8-9). For example, a graphic designer working in the first order will focus on the space of the page, typefaces, layout grids, and printing and finishing techniques. Effort will concentrate on improving the *page* in terms of aesthetic and technical criteria and research may revolve around the basic elements of design, such as colours, fonts and shapes (Golsby Smith 1996:12).

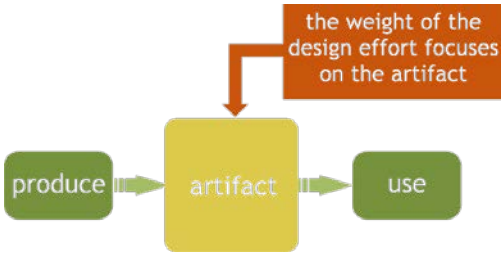

Figure 4 : The focus of design efforts in the first two domains of design (Golsby-Smith 1996:6).

If the client is a first or second order design client, research will also be limited to what the client considers to be the designer's specialist expertise, such as colour, shape, fonts, layout, and materials (Paton & Dorst 2011:578; Phillips 2012:[sp]).

2.5.2 Third order design

Drastic social changes in the second half of the previous century and increased interaction between people from different social classes, nationalities and cultures required the development of universally understood symbols to translate ideas into visual communication (Meggs & Purvis 2006:339). Designers needed to be familiar with the subject to be communicated and with the user at whom the communication was aimed. This brought about a shift towards human centred design where the focus of research for design began to fall more on users and on their experience of the design solution (Buchanan 2001:13).

The focus of design activities expanded to designing the processes and services related to offering products to consumers in order to enhance their total experience. Information regarding the consumer and his / her perceptions, preferences, likes and dislikes was required. Research about design for the market developed rapidly and cut across many fields such as design methods, management studies and the semiotics of marketing; moving design activities into the third order of Buchanan's matrix (Margolin & Margolin 2002:24-31).

Third order design activities include the producer and user of the artefact, shifting focus from object and content, to context and stakeholders (Golsby-Smith 1996:8). Expertise required revolve around the process involved, identifying opportunities or problems contained in the process and recognising and taking appropriate actions to take advantage of, and find solutions to these. According to Dorst's (2008:9) levels of design expertise, *competent designers'* expertise allow them to gradually shift from second order design activities towards third order design. They are able to frame design situations in a specific

context, select the relevant actions and choose a plan to achieve goals rather than to react as situations occur. More experienced *expert designers* are usually able to recognise patterns in design situations and to respond comfortably and intuitively choosing the appropriate action, engaging in third order design activities (Dorst 2008:10). An *expert* information designer will typically take the reader and intent of a document plus the process of reading into account and analyse readability and usability. For example, a tax form is meant to be filled out in order to submit an accurate tax return, so the designer will explore ways of creating an easy to understand flow of information in the document (Golsby-Smith 1996:8).

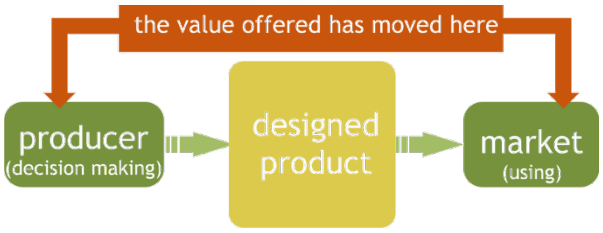

Figure 5: The focus of design efforts (domain) expands when design activities fall within the third order of design. (Golsby-Smith 1996:8)

Organisations on the third tier of the design ladder use design as part of their product development process from early stages onwards, allowing designers to collaborate with process and materials technicians, engineers, marketing and other organisational specialists. Design solutions are based on the needs and expectations of product end-users (The Austrian design ladder 2006:2). Clients that engage in third order design typically have an idea of what they need, but require the designer to develop a workable brief with them. The designer is required to contribute expertise by reframing the project in terms of *possible* solutions to the client's expressed need and is usually involved from the middle stages of developing of the brief.

Research efforts for third order design focus on understanding the intent of the client's goals and objectives, the way the user will interact with the design outcome (the process), as well as the needs and expectations of end-users (Golsby-Smith 1996:8; Paton & Dorst 2011:573; Phillips 2012:[sp]). For example, when a client requires a logo and needs the designer to visually communicate the chosen image, the client will provide what is regarded as relevant information about the business. The designer might however need more information, such as information about the intended target audiences and their perceptions or expectations of the brand, which need to be asked for or researched (Paton & Dorst 2011:578-579; Phillips 2012:[sp]).

2.5.3 Fourth order design

Rapid economic expansion, the founding of multinational corporations and the development of electronic technology, global telecommunications, mobile phones and the internet during the nineteen-eighties and nineteen-nineties brought about another social shift expanding the human community into the global village. The result was a blur of information and visual forms melted together from different cultures and world views (Meggs & Purvis 2011:414). The negative impact on unique cultural identities, paired with an ever-widening gap between the rich and poor and increasing pressure on global natural resources and the environment by mass production and consumption gave rise to calls for a new social agenda for design, leading to more complex and a much wider range of problems that designers have to face.

Design activities expanded to the fourth order, focusing on the *system* or *culture* of which the producer and user form a part and in which the design solution will be used, as seen in Figure 6 (Golsby-Smith 1996:15; Buchanan 2001:15). Fourth order design solutions involve complex interactions between the designer or producer's intent with the solution / product, the user of the solution or product's needs and expectations and the impact that the product / solution and the way it is being used by the user has on the wider natural, social and cultural environment, Figure 6 (Buchanan 2001:16).

Figure 6: Design interaction between the design solution, designer, user and the environment. (Buchanan 2001:15)

Master designers are gradually moving towards fourth order design activities in terms of Dorst's (2008:10) levels of design expertise. They are developing their own set of expert processes and guiding principles to a new level of innovation, applying them in fresh ways, creating new responses to situations which have previously been well understood and for

which standard responses may exist. The *visionary* consciously strives to expand the domain in which he or she works, looking at existing situations and deriving from them new opportunities of the way things could be. This level of expertise is found at the forefront of the fourth order of design and is required to further expand the domain of design as change happens and new world-views emerge (Dorst 2008:11).

On the fourth tier of the design ladder organisational management collaborates and co-operates with designers to develop innovative approaches for all sectors of their business. In so called design-led[10] organisations, the design process is not only applied to products, but combines the vision, culture and value system of the company with its future role in the value creation chain (The Austrian design ladder 2006:2).

A key characteristic of design thinking or fourth order design, is the ability to frame a problem in a new and interesting way that evokes different potential outcomes (Paton & Dorst 2011:573). The designer becomes a *collaborator* or partner, reframing the project in terms of opportunities, problems and potential solutions *with* the client (Paton & Dorst 2011:578-579; Phillips 2012:[sp]). The designer participates in all decisions central to delivering on the brand promise and the integration between design and brand to ensure a consistent message to customers through brand experience (Beverland & Farelly 2007:10-17; Paton & Dorst 2011:579; Phillips 2012:[sp]).

Research efforts for fourth order design activities aim to identify and consider the needs and expectations of users on a personal level and focus on understanding the social and cultural environment in which the design solution will be used (Frascara 2001:[sp]; Blankenship 2005:24-25, Whitney & Kelkar 2004:41-42). Organisational, social and cultural values and identities are explored and attempts are made to predict users' interactions with potential design outcomes and to consider the impact on the social, economic and environmental context in which they take place (Morelli 2007:18-19; Blankenship 2005:24-25). Research is critical to develop and improve our understanding of the role of design. New research methods and approaches need to be explored and developed to enable design practitioners to continue meeting the ever-increasing challenges and complexities of the design arena (Buchanan 2001:19).

Wider and more complex problems lead to design outcomes that potentially have a far-reaching and serious impact, so it is perhaps not surprising that a growing number of

[10] A term used to describe organisations where design is used as a strategic resource, not only applied to products, but integrating the vision, culture and value system of the company in all design activities (Beverland & Farelly 2007:10).

authors are joining the conversation around the need for responsible and sustainable approaches to design (Sethia 2005:46-49; Cooper 2005:10-11; Morelli 2007:3-8; Wahl & Baxter 2008:78-83).

In the context of this study a useful definition for 'responsible design' is offered by Richard Eisermann, Judith Gloppen Onny Eikhaug and Philip White (2005:20): "The true challenge for design today is to arrive at engaging, meaningful outcomes in a way that addresses longer-term systemic issues rather than mere short-term desire fulfilment, while still giving joy…". Frascara and Winkler (2008:3) elaborate on this, saying that social relevance is essential if design is to make sense in the future world order. Design should be confronting important human problems and seek to solve social problems. As examples he cites the layout of scientific communication in a way that cuts the time required for a medical doctor to consult pharmaceutical information, or the design of a collapsible bicycle that makes it easier to commute between the subway station and the workplace. People in general are unaware of the possibilities design may offer in making everyday life easier and according to Frascara (2001 [sp]), it is up to designers to demonstrate this, but he also warns that designers should be accountable for their design outcomes and the impact thereof should be measurable.

Cooper (2005:12-14) cites several case studies of individual designers' and design organisations' efforts to produce design that strives to improve people's lives and improve social circumstances, but she also emphasises the need to further explore the meanings of social responsibility and sustainability and to develop the means to evaluate and measure the impact of our designs on society, the environment and business.

Nirmal Sethia (2005:42-49), Professor of Management and Director of the Centre Business and Design at the California State Polytechnic University, presents an integrative framework where responsible design involves balancing the interests of all stakeholders and serving these interests through appropriate execution. Firstly, the designer has a responsibility to meet the client's intent with his or her design outcome. Secondly, the designer has the responsibility to the client's customers to create a design outcome that is usable, useful and expressive of the users' unique identities. Thirdly, the designer has a responsibility to be respectful of the values and beliefs of the society of which users form a part and be sensitive to the natural environment. Lastly, the designer should remain true to his or her own values, beliefs and creative spirit. Furthermore, he or she should leverage appropriate technology within the constraints of the design project. For example, when designing for extremely poor developing communities, the designer should consider that

access to water or electricity may be limited. Finally, considering a growing global strain on environmental resources, the designer has the responsibility to see that his design is environmentally sensitive. Sethia (2005:48) suggests that a more participatory approach, where all stakeholders are involved in identifying the design problem and in the search for possible solutions, might result in more sustainable design outcomes.

Nicola Morelli, faculty member at the Faculty of Architecture, Design and Media Technology at Aalborg University, regards the market- and consumption-driven approach traditionally held by design, as disabling in the sense that there is no involvement of the user in identifying a "problem" or in defining a solution. Based on Buchanan's design matrix, Morelli (2007:13) suggests that the focus of design activities should shift from creating material objects to developing systemic solutions or platforms that can be tailored to suit the needs of local circumstances, communities and individuals. Design should facilitate and enable these users to identify their own problems and to develop their own solutions through discussion, collaboration and participation. Even though these individuals often have little knowledge of what design can do, designers should include local knowledge and skills in their research and assist in integrating this tacit local knowledge into broad knowledge that can be applied elsewhere (Morelli 2007:13).

Authors such as Christian Wahl and Seaton Baxter (2008:72-83) expand on Sethia's framework of stakeholders, concurring that a more holistic and inclusive worldview may enhance designers' ability to make sustainable design decisions for the future. With an interconnected, holistic system, designers are obliged to follow a collaborative and inclusive decision-making process. The broader knowledge offered by an interdisciplinary team and by inclusive research approaches is likely to yield better and more sustainable design outcomes (Wahl & Baxter 2008:72-83; Phillips 2012:[sp]).

The recurring ideas in all these papers are firstly that design is concerned with wider and more complex problems than the production of mere material objects for consumption. Based on these wider and more complex problems, design outcomes have a wider impact than previously believed – they impact on users, wider communities and the environment. As a result, designers' roles have changed. They are no longer the delivery agents of design artefacts, but rather enablers that need to work with users, assisting them to define their own design problems and enabling them to define their own solutions. Solving complex social problems may require a more participatory approach to research, especially during the inspiration and ideation phases of the design process. A concern for the needs and aspirations of users, the interaction of users with the design solution and

the potential impact of the design solution on the users' communities offer a compelling argument for the importance of designers developing research skills.

2.6 The importance of research during the design process

Possibly one of the common causes of project failure is the inability of the design client to clearly define the problem and project requirements at the outset. An unclear design problem may be exacerbated by the intuitive approach of some design practitioners, who focus on creativity rather than problem-solving, which may result in highly creative, but sometimes ineffective design outcomes and failure to meet the client, customers and end-users' needs (Friedman 2003:513).

Definitions of design by seminal design authors all contain a purpose for design: 'Design is the human power of conceiving, planning and making products that *serve human beings* in the accomplishment of their individual and collective purposes' (Buchanan 2001:3-22) and outcomes aimed at '*changing existing situations into preferred ones*' (Simon 1996:129). Other definitions of design focus on design as a *facilitator* between the artificial (manmade) world and the natural world (Frascara 2001:[sp]) and a *negotiation* between the *intent of the designer* and the *expectations of the user* (Buchanan 2001:16). In all these definitions, an understanding of things, situations and people, how and why they are, how and why they work, what they need, what they expect and why, is required (Dorst 2008:5-11; Friedman 2003:503-522; Frascara 2001:[sp]).

Research for design is essential to orient practice and to enhance the designer's understanding of the problem at hand, so that he or she can design effective outcomes that fulfil the needs of clients, customers and end-users alike (Frascara & Winkler 2008:12). This kind of research is important to the design process from the client's as well as the designer's perspective.

2.6.1 Client perspective

Much has been written about the positive contribution of the effective use of design to business success (Beverland & Farrelly 2007:10-17; Lockwood 2007:91-97; Borja de Mozota 2003:95-98; Cuffaro, Vogel & Matt 2002:49-59; Hertenstein, Platt & Brown 2001:10-19). Design-led businesses are more competitive. They have an advantage in terms of influencing the potential buyer's decision to purchase. Customers perceive products and services to be more usable and desirable, the brand as more valuable and they express higher levels of satisfaction. These businesses experience increased sales, show an increased yield of new patents and intellectual property and an increased return

on investment (Lockwood 2007:92; Borja de Mozota 2003:90). Effective use of design throughout the entire business process can significantly shorten the time from research and development to launch (Lockwood 2007:91; Phillips 2012:[sp]).

When design becomes an integral part of all strategic decisions, a business is able to move away from copy-cat products to truly innovative products that enrich and improve the lives of users and that seek to identify and address problems such as environmental impact, cost, safety and legislation. This approach constitutes responsible and sustainable design – in the end everybody involved gains from the outcome (Beverland & Farelly 2007:14).

As discussed previously, developing a good design brief is essential to creating effective design outcomes. Design-led businesses use designers as partners and collaborators who work with business management from the outset to frame problems or opportunities and possible solutions, develop a brief and create effective design outcomes (Paton & Dorst 2011:578-579; Beverland & Farelly 2007:13; Phillips 2012:[sp]). Research for design is conducted from the outset of the project, aims to identify the needs and expectations of all stakeholders on a personal level and focuses on understanding the social and cultural environment in which the design solution will be used (Cooper 2005:12; Beverland & Farelly 2007:10-17; Blankenship 2005:24-25; Phillips 2012:[sp]).

Although many case studies attesting to the commercial benefits of the effective use and management of design exist (Whitney & Kelkar 2004:46; Cawood, Lewis & Raulik 2004:74-75; Cooper 2005:12-15; Beverland & Farelly 2007:11-14), many small companies or SMMEs lack an awareness of what design is and how design investment can benefit their businesses (Bruce et al 1995:416-417; Brazier 2004:61). As a result, SMMEs are less likely to use design as an embedded strategic business resource. Although no documented studies could be found on how South African SMMEs use design, studies done in the UK, Europe, Asia and Mexico and Poland all suggest that these businesses tend to use design only as styling (first and second domains of design) and tend to be wary of the costs of employing professional design expertise, viewing design as a non-essential, nice-to-have enhancement to be added at the end of a project (Bruce, et al 1995:404, Brazier 2004:61-63; Iduarte & Zarza 2010:20-24).

Studies in Norway (Jevnaker 1993:379-403) and the UK (Bruce & Docherty 1993:402-422) suggest that business managers may learn what design is and how they can benefit from effective use and management of design through participation in the design process. An

approach where business managers (design client) and the designer are involved from the outset (briefing stages) of the project and where they participate and collaborate in the design process from briefing to implementation, benefits both parties. The designer, as a participant in the research process, may gain valuable insight into the organisational culture and values and into the needs and expectations of the client. The business manager or design client on the other hand, may gain a better understanding of the design process, the detail and resources involved in creating effective design outcomes and the potential commercial value that effective design might add (Phillips 2012:[sp]).

2.6.2 Designer's perspective

Much has been written about the commercial benefits of the effective use and management of design and the integral part that research for design plays during this process. However, research for design is also invaluable from a designer's point of view. Business managers who lack an awareness of what design is and how design can benefit their businesses often view the role of the designer as simply to execute final drawings to their (the manager's) specifications. The designer is only brought in after the client has formulated the problem and identified a solution. The brief in these projects is usually a fixed document telling the designer exactly *what* is wanted, but very little about *why* specific elements are required (Paton & Dorst 2011:575, Phillips 2012:[sp]). In these instances research is invaluable to the designer for defending design strategies and decisions that differ from the client's view of what the outcome ought to be. Ideas backed by research may even convince a client to allow the designer a greater degree of involvement in reframing the project in terms of problems and opportunities and greater creative input in the search for possible solutions (Phillips 2012:[sp]).

In situations where the client has limited access to research and development resources and expertise, as is often the case in smaller businesses (Bruce et al 1995:297-315), the client may be unable to supply all the information the designer needs to create effective design outcomes. In order to fulfill the responsibility to the client to create outcomes which fulfill the needs and expectations of both the client and his customers, the designer will need to gather information and do research during the design process.

Lastly, although the purpose of research for design is largely to inform practice in a highly specific clinical situation, this form of research, if recorded meticulously, analysed critically and articulated clearly, may advance design knowledge by posing new research questions for applied or basic research, thus contributing to design knowledge (Friedman 2003:519-522; Merrifield 1995:9, Buchanan 2001:3-22).

2.7 Summary

The focus of this study is specifically on research for design during the initial phases of the design process. This chapter serves as an introduction to the basic terms used. The nature of design as used in the context of this study is established as a problem-solving process. The non-linear nature of the design process consisting of three clearly demarcated, but overlapping spaces, namely, the inspiration, ideation and implementation phases needs to be understood in order to understand the focus of research for design and why it is crucial to and part of the design process. Each phase involves very specific activities and a designer usually moves back and forth through these spaces several times in order to arrive at a design solution.

Secondly, the nature of design research is discussed specifically to distinguish between academic design research and studio research or research for design. Research for design is the investigation and gathering of information, which enables the designer to clearly understand the design problem and to identify possible conceptual directions. This research may be embedded in the creative process, the designer may be doing it unwittingly and the focus is on the discovery of possibilities and opportunities.

Research for design may take many different forms. This was explored in the context of the ever-widening domain of design and the influence of factors such as historical developments in design, the level of design expertise present in a project, organisational approaches to design and the role and involvement of the designer during the development of the design brief on the nature and scope of research for design.

As is evident from the discussion on its expanding domain earlier in this chapter, design is no longer concerned only with the creation of consumption-driven artefacts, but is subject to complex commercial, social and environmental pressures and responsibilities. This chapter concludes with a look at the increasing demand for a more human centred approach where designers are aware of and understand the specific commercial, social and environmental parameters of the design problems they engage with.

Against this background, chapter three will firstly look at developments in participatory approaches to research for design over the past decade, followed by a theoretical exploration of participatory action research as a possible approach during the initial information gathering phases of the design process

CHAPTER 3: PARTICIPATORY ACTION RESEARCH AND DESIGN

In chapter two, research was explored as an integral part of the design process. Research for design was described as project-related research in real-life, practice-based situations with the primary objective of gathering information about a specific design problem to inform and inspire possible design solutions. Design today is concerned with wider and more complex problems than the production of mere material objects for consumption, and design outcomes have a wider impact than previously believed – they impact on users, wider communities and the environment (Buchanan 2001:16). As a result, designers can no longer act as deliverers of consumption-driven objects. Their role has changed to that of enablers, collaborating with and assisting end-users to define their own design problems and create their own solutions (Buchanan 2001:15; Eisermann et al 2005:20; Morelli 2007:22).

In this context, research for design needs to include a concern for the needs and aspirations of users, user interaction with design outcomes, and for the potential impact of design outcomes on the users' communities. According to Press and Cooper (2003:102-103), the early phases of the design process involve a search on three levels, namely a search for understanding, a search for ideas and a search for solutions. Several authors argue that solving complex social problems may require a more participatory approach to this search process, especially during the inspiration and ideation phases of the design process (Sanders 2002:[sp]); Liem & Sanders 2011:110-119; Kujala 2003:11-13; Strickler 1999:27-39; Merrifield 1997:1-7).

This chapter commences with a broad perspective, examining proposed new frameworks for design research that might equip design professionals in dealing with increasingly complex problems. Subsequently, an overview of developments in participatory design approaches aims to establish a context against which participatory action research is explored theoretically. Davison, Martinsons and Kock's (2004) interdependent principles and criteria of canonical action research are discussed as a means to ensure and assess rigour and relevance. (These are applied in chapter six in an evaluation of rigour of the practical component of this specific study). Lastly, similarities and overlaps between design research and action research are explored in terms of Davison et al's (2004) criteria to theoretically establish whether participatory action research might be suitable for gaining insight into users' needs, desires and expectations in practice-based research for design, and whether this approach might simultaneously satisfy academic research objectives by contributing to design knowledge.

3.1 Proposed new frameworks for design research

An ongoing discourse on possible new frameworks for design research has produced suggestions from many prominent design researchers. Professor Nigel Cross, Emeritus Professor of Design Studies at The Open University in the UK, bases his taxonomy of design research on people, process and products, suggesting the epistemology, praxeology and phenomenology of design as possible areas for design research (Cross 1999:6). A slightly wider view taken by Dorst (2008:4-11), include design expertise, design processes and design content, as well as the context in which designers work (design practice).

What emerges clearly from this discourse, is that design research needs to develop frameworks, tools and methods that allow for the study of the full spectrum of design phenomena, including design expertise, design practice, how design content impacts on and affects different societies and cultures, and how the design process might evolve to embrace the fast-changing and widening field of design. The last two decades especially has seen much research and development in the area of participatory approaches to design, suggesting that these may substantially improve designers' understanding of the context of specific design problems in terms of users' needs and aspirations, user interaction with design outcomes and the wider system in which the design problem and users are situated (Kujala 2003:1-2; Liem & Sanders 2011:110-111; Prahalad & Ramaswamy 2000:79).

Literature reviewed for this study focuses strongly on tools and methods that may be used during the design process. Though articles about some of these tools and methods proclaim them to be useful to designers in highly specific research for design situations, limited evidence was found of these tools being used or tested in an academic design research context to establish their general applicability to a wider range of design problems.

3.2 Developments in participatory design approaches

The problems that designers may engage with have become more complex with the expanded domain of design over the past half century (Buchanan 2001:16), giving rise to a user-focused approach to design, namely human centred design (hcd). As a result, user involvement has become a way to obtain valuable input from end-users. Sari Kujala (2003:1-16), psychologist, cognitive scientist and Member of the Faculty of Design at Aalto University in Denmark, points out that involving users early in the initial inspiration and ideation phases of the design process can have positive effects on the quality and speed

of the research and design processes, achieve a better match between a design solution and the intended end-users' needs and expectations and improve end-user satisfaction.

With user involvement, a new and rapidly evolving landscape has emerged in research for design as illustrated in Sanders and Chan's (2007:[sp]) visual framework of emerging trends in participatory research for design in Figure 7. The framework is based on two different research perspectives, namely a research-led perspective and a design-led perspective, as well as two radically different mindsets which have emerged from very different cultures, namely an expert mindset and a participatory mindset.

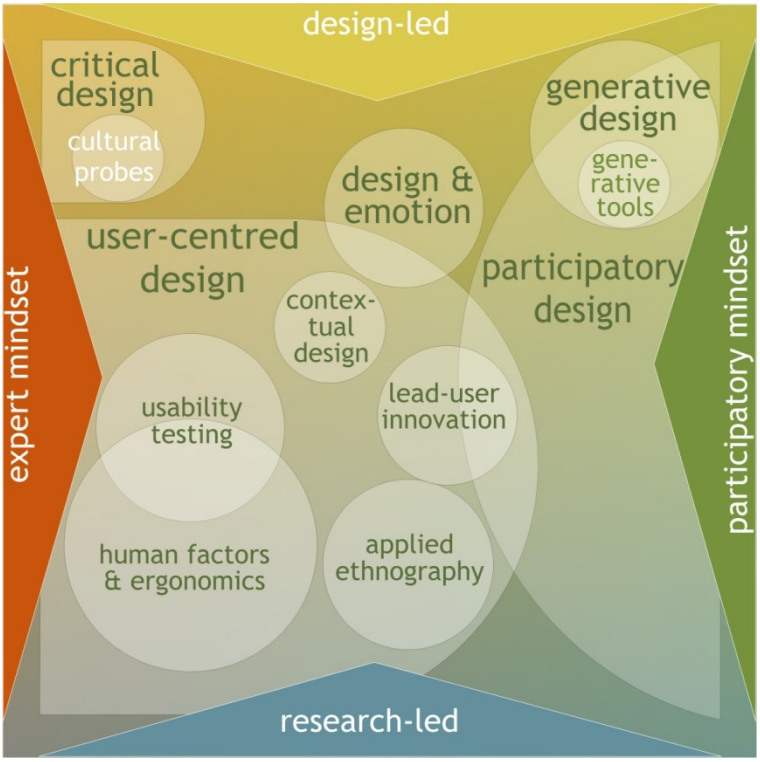

Figure 7: Map of emerging trends in participatory research for design (Sanders & Chan 2007).

3.2.1 Research-led perspective

The research-led perspective has the longest history and has been driven by applied psychologists, sociologists, anthropologists and engineers. From this perspective, the researcher is the expert and people are the objects of study (Sanders & Chan 2007:[sp]). Research from this perspective is concerned with using scientific ways of assessing value and relevance in a particular situation. The designer's role when working from this perspective is to synthesise the research findings from research professionals into a practical design solution (Swann 2005:54). Phillips (2012:[sp]) writes that typically, in larger design and advertising agencies, the designer has little or no contact with the client

or the client's customers, but receives a brief containing market research written typically by the client's marketing team. Personal experience as a designer has been similar.

3.2.2 Design-led perspective

The design-led perspective has only been recognised much more recently. This perspective is exploratory in nature, places a high value on design-thinking[11] and has potential for significant innovation. This approach uses design to stimulate discussion and debate about the social, cultural and ethical implications of existing and emerging technologies and does not always conform to scientific assessment of value and relevance (Liem & Sanders 2011:113). In other words, the design outcome might not be relevant or useful in current circumstances, or might not currently be valued or even adopted by users. The design outcome might be something users could not even imagine ever needing, but may find unimaginable to live without once they have adopted it. Such design outcomes could be so innovative as to totally change users' lives. The introduction of microwave ovens in South Africa in the nineteen eighties, which resulted in microwave cook books and microwave-safe kitchen utensils and changed the way people planned and prepared their meals, could probably be considered a good example.

A more user-focused design-led approach can be seen in co-design, where the tools and methods of design-thinking are put into the hands of the very people who are potential end-users, and where designers and users work together to explore and define design problems and design solutions (Liem & Sanders 2011:110). Research from the co-design-led perspective aims to empower people to promote and create better alternatives to their current situation (Dunne & Raby 2001:58; Dunne & Raby 2007:[sp]; Sanders & Chan 2007:[sp]).

3.2.3 Expert mindset

The left side of Sanders and Chan's framework describes an approach characterised by an expert mindset. Researchers on this side of the map are involved with designing FOR people. They describe themselves as experts and regard the end-users as consumers or research subjects. This section of the map is the zone with the most developed and largest amount of design research, namely *user-centred* design. Researchers collect, analyse and assess data pertaining to users' needs and expectations in order to inform the design of products and services (Sanders & Chan 2007:[sp]).

[11] Design-thinking is the ability to combine *empathy* for the context of a problem, *creativity* in creating insights and solutions, and *rationality* to analyse and fit created outcomes to the context. The idea of design as a "way of thinking" can be traced to Herbert A. Simon's 1969 book, *The Sciences of the Artificial* (Design thinking 2013:[sa]).

Within each large zone are smaller bubbles of newer, more specific, but less developed approaches and toolkits to use in project-specific research for design. Some of these approaches listed by Sanders & Chan (2007:[sp]) to user-centred design are:

a) *Human factors and ergonomics*, which are primarily concerned with physical and psychological behaviour in relation to a particular environment and borrow from the disciplines of engineering, physiology and psychology (Sanders & Chan 2007:[sp]).
b) *Applied ethnography,* which is the qualitative description of cultural values and practices, based on observational research (Sanders 2006:5). Ethnography involves a multi-disciplinary team, including a trained ethnographer and a designer. Ethnography is a holistic study of the behaviours and experiences of a few people in everyday life, rather than the superficial study of many people. Photos, video, audio and other contextual data are collected and analysed (Ethnography & design: an ethnography primer [sa]:1-19). Ethnography usually implies long periods of fieldwork and can therefore be time-consuming and costly. For studio research purposes, ethnography may be used in a 'quick and dirty' form – brief observational studies aimed at informing designers (Millen 2000:280-286; Bossen 2002:[sp]).
c) *Usability testing* measures how well people are able to use something for its intended purpose, by observing randomly selected people using the product or prototype with the aim of discovering errors of areas for improvement. Toolkits and methodologies such as hallway-intercept-testing[12], co-discovery learning[13] and think-aloud-protocol[14] are borrowed from the fields of cognitive psychology and cognitive engineering (Sanders 2006:5; Usability testing 2012:[sp]).
d) *Contextual design* is a structured, well-defined user-centred design process, providing methods to collect data about users in the field, use the data to create product and service concepts and to iteratively test those concepts with users. Contextual design aims to discover users' needs, expectations and desires through talking to people. Although based on theories from several disciplines, including

[12] Five to six random people are asked to test a product or service. The name of the technique refers to the fact that the testers should be random people who pass by in the hallway.

[13]With co-discovery learning, two test users perform tasks together while being observed. They are to help each other in the same manner as if they were working together to accomplish a common goal using the product. They are encouraged to explain what they are thinking about while working on the tasks.

[14] Think-aloud protocols involve the observation of a test-user while working with the product or service, and verbalising his or her thoughts and ideas at each specific moment. Think-aloud protocols are valuable in discovering what problems a user might have with the product or service.

anthropology, psychology and design, contextual design was designed for practical application with commercial design teams and has been applied in a variety of industries, particularly useful in the information technology industry (Holzblatt & Beyer 2011:[sp]). Contextual design calls for one-on-one discussions with, and observations of users in order to provide designers with a rich, dependable view of the situation in which a product may be used, and to assist in gaining empathy with users in order to inspire and inform them during the initial phases of the design process (Sleeswijk-Visser, Stappers & Van der Lugt 2005:1; Ludden 2010:[sp]). Contextual design aims to discover users' daily routines or processes with a view to facilitate or eliminate these routines or processes (Bossen 2002:[sp]). Users provide data and evaluate ideas, but are not active in the design itself. Interviews are often short (two to three hours), and limited in number (10-20). Holzblatt (in Bossen 2002:[sp]), asserts that this is sufficient, because in any specific circumstance, there is only a limited number of ways to perform a task. However, relatively short and limited numbers of interviews pose the risk that users and developers may not move beyond common sense and mutual preconceptions (Bossen 2002:[sp]).

e) *Lead-user innovation* is an approach that is partly participatory and partly user-centred. Lead-users are those whose present strong needs will in future become general needs in the marketplace. Moreover, since lead-users often attempt to fill the needs they experience, they can provide innovative product concepts, as well as valuable design data (Von Hippel 1986:791). Although lead-user innovation is participatory in principle, it only involves those few users who are already innovating in the particular domain. Lead-user innovation is more user-centred, with its focus on the "expert" user as co-designer. Although lead-user innovation can be highly effective in specialist domains of expertise, such as manufacturing industrial tools for the mining industry, it is unable to determine the needs and dreams of a large number of everyday people in general, everyday situations (Sanders 2006:4).

3.2.4 Participatory mindset

The right side of Sander & Chan's (2007) map represents a culture characterised by a participatory mindset. Researchers on this side of the map design *with* people. Although the perspective from which research is conducted may be either research-led or design-led, users are regarded as the true experts in domains of experience such as living, learning and working and are co-creators in the design process. The largest zone on this

side of the map, namely participatory design, extends across both research-led and design-led perspectives.

Participatory design, also sometimes referred to as co-design, attempts to actively involve end-users in the design process in order to ensure that design outcomes truly fulfil their needs, desires and expectations. The tools and methods of design thinking are put in the hands of the people who will be the future end-users early on in the design process. The end-user as part of the design team assumes the role of the expert on his / her own experiences and feelings. Participatory design is recognised by democratic participation, with all participants' contributions regarded as equally valid and important. Empathy and mutual respect for all who will be affected by the outcomes are key issues. Participatory design usually results in skill enhancement and empowerment of participants, as they learn from each other and from the process (Archer 1995:11; Svengren 1993:448; Kujala 2003:3; Sanders & Simons 2009:1).

The origins of participatory design can be traced back to work done with trade unions on organisational design in Scandinavia in the nineteen-sixties and nineteen-seventies and reflect the Scandinavian view that those who will be affected by the outcome should obviously be included in the design process (Kujala 2003:2; Sanders & Chan 2007: [sp]). Some of the approaches used to encourage participation include generative design and design and emotion.

> D*esign and emotion* comes from a design-led perspective and is concerned with finding ways and developing tools to involve users' emotions in the design process, measure emotional reaction to products, and measure the meaning users attach to products in order to enhance users' product experience. These tools and techniques may or may not involve user participation (The design and emotion society [sa]:[sp]).
>
> *Generative design* focuses on generating tools that non-designers can use to fulfil their dreams and aspirations. No pre-determined questions are asked to find specific answers. Rather, a playing field is provided where participants can create their own questions and find their own possible answers or mere points of interest (Co-design [sa]:[sp] ; McCormack, Troy & Innocent 2004:sp; Sanders & Westerlund 2011:1-5). Generative design aims to empower people to promote and create their own alternatives to the prevailing situation (McCormack et al 2004:sp).

Techniques used in generative design involve the use of physical aids as tools during the design process to stimulate participants' awareness and thoughts. Generative techniques aim to create a shared design language that stakeholders, such as users, designers and researchers, may use to communicate visually and directly with one another. Various tools are available to the designer using generative techniques, including cultural probes and generative toolkits, for example.

Cultural probes involve small packages containing materials for expressive exercises, such as cameras, pictures, collage words and pencils that are sent to participants who are asked to partake in short exercises. Typically, these exercises will be highly ambiguous and attempt to draw highly personal answers from participants. For example, participants may be given a map of their area and asked to indicate the public places where they feel safe, or asked to use the camera to take pictures of objects they trust. The results of these questions and exercises are then used by designers as a source of inspiration during the early phases of the design process (Stappers, Sleeswijk-Visser & Keller [sa]:[sp]; Gaver, Dunne & Pacenti 1999:21-29).

Generative toolkits are limited sets of stimulus items, chosen based on a solid understanding of the context of use to assist stakeholders in expressing infinite ideas, hopes, dreams, feelings and anecdotes regarding the circumstances in which the product is used (Sleeswijk-Visser et al. 2005:1) Participants are asked to first do a small exercise on their own. For example, participants may be asked to note on a clock the times of the day that they talk to friends and to note their feelings at that time. These exercises serve to make users aware of their behaviour and to reflect on it during the period leading up to a group session. During the ensuing group session, participants may engage in similar exercises, where each one makes something. Subsequently they are asked to first present their creations to the other participants and then to discuss issues raised by the presentations. The results of these sessions are not definite answers to specific questions, but rather a map indicating interesting areas and their connections, which can be pursued by the designer (McCormack, et al 2004:[sp]).

The tools and methods discussed in Sanders and Chan's (2007 [sp]) framework are useful for their intended purpose, namely information gathering in a project-specific studio context. Generative tools, for example, show strong similarities in approach to participatory

action research as discussed in the next section and the material and methods used in the practical exploration of this study to discover user needs and expectations strongly resemble aspects of generative tools.

However, from an academic research perspective where the aim is to seek possible relations or to inspire the formulation of new theories through case studies, these tools and methods fall short in terms of criteria for evaluating and demonstrating rigour. The focus is primarily on project-specific information gathering, with limited concern for translating such information into knowledge that goes beyond the specific situation. These limitations mean that findings based on these tools and methods can hardly be communicated to a wider design community as anything more than anecdotal case studies. In order to adhere to Archer's (1995:1) criteria for the validity of research as discussed in chapter two, this dual-purpose study needs to be able to translate the findings of the practical exploration in chapter four into knowledge that goes beyond mere information about user needs and expectations Therefore, the next section explores participatory action research theoretically as an approach, which appears to answer both the need for gathering information about user needs and expectations and for generating knowledge that can be applied to a wider range of design problems.

3.3. Participatory action research in design

3.3.1 What is action research?

The underlying technique to generative design can be traced to participatory action research (PAR). Before launching into a detailed discussion of PAR and its potential value in design, an explanation of the basic nature of action research is necessary.

The origins of action research (AR) can be traced back to developments in human resources management in the mid-nineteen-forties. Action research is an approach which may have widely varying characteristics and assumptions, and several classification schemes have been suggested to introduce the various forms and orientations of AR. Classification is done according to the process followed (iterative, linear or reflective), the structure (fluid or rigorous) and researcher involvement (collaborative, facilitative or experimental) (Davison et al 2004:68). This study focuses on canonical action research, as this form of AR resembles the design process in its iterative nature, and because researcher involvement is collaborative and / or participatory (Davison et al 2004:68). Canonical action research is a series of cycles of pro-active, systematic enquiry conducted through practical action with the aim to address the practical concerns of people in an

immediate problematic situation, *while, simultaneously*, studying the goals and processes with the aim of expanding knowledge (Davison et al 2004:68; Archer 1995:11). Action research is based on the premise that every problem-solving situation contains an opportunity for learning (Svengren 1993:448).

AR cycles include the observation of, reflection on and information gathering about a problem, planning and taking action, evaluating, specifying learning and diagnosing new problems (Susman 1983:102), Figure 8. In short, action research asks the questions: "How can the status quo be improved?" *and,* "What can be learnt from this?"

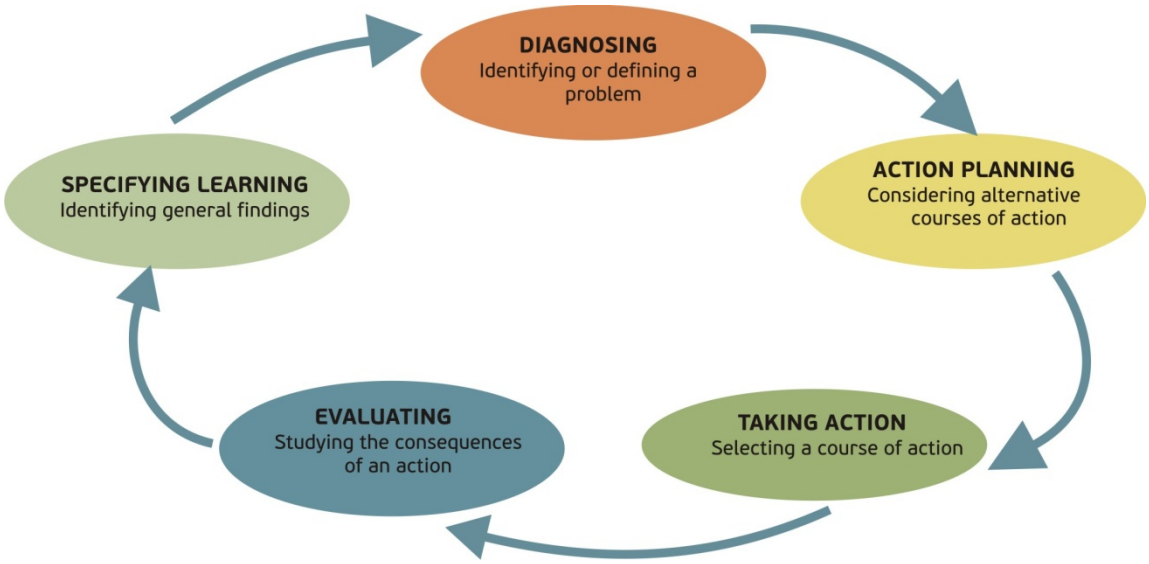

Figure 8: A model of the action research cycle (Susman 1983:102).

The focus of practice-based studio research is a search for understanding, a search for ideas and a search for solutions (Press & Cooper 2003:102-103), and is not necessarily concerned with contributing to theory. PAR as an approach allows for tacit knowledge, which is inherent in a situation-specific studio context, but simultaneously requires the researcher to study the problem systematically and rigorously and document all aspects of the process carefully. After carefully study of the problem, action informed by theory is taken. Data is collected during the process, action is reflected upon critically and theory is then developed based on the outcomes of the actions (O'Brien1998:3; Swann 2002:49-61). With a dual focus on problem-solving activities and formulation of theory, PAR appears to be an applicable approach for this study.

3.3.2 What is participatory action research (PAR)?

Action research is based on a paradigm of praxis, described by Aristotle as the art of acting upon current conditions in order to change them (O'Brien 1998:[sp]). Viewed in this context, participatory action research is a collaborative, democratic and empowering effort dealing with the disciplines and activities in the ethical and political lives of people. All stakeholders in a specific system are identified and are actively involved in finding possible solutions to a shared problem (O'Brien 1998:[sp]; Svengren 1993:447). At the base of PAR lies the premise that people learn best and are more willing to implement what they have learnt when they do it themselves. PAR occurs among ordinary people in real-world situations, solving real problems by accessing and combining their tacit knowledge gained from experience with theory they have gathered from libraries, existing research documents and / or experts from disciplines relevant to the problem. Research is not done by objective observers, but rather by participants who participate explicitly in all processes in order to test or shed light upon something (Archer 1995:6-13; O'Brien 1998:[sp]).

PAR is based on very specific ontological assumptions: Firstly, PAR is value-laden (O'Brien 1998[sp]). Goals need to be agreed upon, and all biases, assumptions concerns and judgments have to be made transparent to all participants at the outset of the project. Participants negotiate meanings and practices from differing value perspectives, resulting in multiple perspectives, leading to multiple possible actions and rich interpretations. Accordingly, research findings will not offer final conclusion or results, but will rather provide a rich picture as the basis for ongoing discussions and for new actions among collaborators (McNiff & Whitehead 2006:23).

Secondly, the researcher(s) stand(s) in relation to others within a social context, requiring consensual validation of the social reality. Participants need to agree on a shared understanding of the relationships between phenomena and their context, and between the elements constituting any given phenomenon. Collective knowledge of participants is uncertain and ambiguous, as any one question may represent multiple answers, depending on the participants' various perspectives. The object of enquiry is neither objective nor absolute, but rather biased and subjective, dependent on the agreement of meanings as negotiated by the participants at the outset of the enquiry, typically in a researcher-client agreement (RCA) (Davison et al 2004:70 & O'Brien 1998:[sp]). Actions may be based on implicitly held assumptions, theories and hypotheses, but the observed results of every action enhance and expand theoretical knowledge, which, in turn,

influences future action (Susman 1983:102; Merrifield 1997:[sp]; Svengren 1993:448; McNiff & Whitehead 2006:3-30).

Lastly, PAR carries a moral commitment. Each participant chooses which values to subscribe to and is accountable for his / her own actions, choices and influence on the learning of others. For example, values could be conveyed in a coercive way, insisting that others listen; or in a more educational way, respectful of others' point of view, but inviting them to consider other options based on theory. Open discussions of personal values, ideas, interpretations and judgments contain an element of risk to the personal ego. However, the collaborative, democratic character of participatory action research presupposes that all ideas and values are equally significant as potential resources for creating new knowledge, enabling new insights gleaned from noting and negotiating contradictions (O'Brien 1998:[sp]; McNiff & Whitehead 2006:23; Merrifield 1997:[sp]).

The collaborative, participatory and democratic nature of PAR implies very specific ethical considerations, such as respect for all participants and respectfulness by all involved. Ethical concerns when conducting action research include consultation with all stakeholders beforehand and the acceptance of guiding principles by *all.* Secondly, participants must be allowed equal influence and those wishing not to participate at any point should be respected and allowed to withdraw. Development of action plans should be transparent and open to suggestions from all stakeholders and decisions about the direction and outcomes of all research should be collective. Lastly, the nature of the research process must be explicit and include all biases and interests with equal access to information to all involved (O'Brien 1998:[sp]).

PAR is a holistic, open-ended and developmental approach to problem-solving aimed at improving learning in order to enhance practices in order to learn from them (Svengren 1993:444-456) and allows for a wide variety of research tools to be used. A large part of any action researcher's role in fact, is to recognise or develop and refine tools most suited to specific situations and contexts (Merrifield 1997:3).

3.3.3 When is AR an appropriate approach?

AR is a situation-specific problem-solving activity used to empower stakeholders by discussion and learning from their understanding and knowledge of their shared situation or problem. AR is especially useful when stakeholders lack an understanding of a problem.

New generalisable knowledge can be generated by applying AR to a general question within a specific situation. For example, finding ways to encourage workers to be more

positive and to take initiative is a problem present in many workplaces, but knowledge gained from exploring the issue in one specific situation might offer insights applicable to the same situation in all workplaces (O'Brien 1998:[sp]). This ability to generate new knowledge from an application of AR to a specific situation suggests that an AR approach could simultaneously satisfy the need for gathering project-specific information, as well as the need for generating new knowledge, which is what the practical exploration in this study is about.

Stakeholders can learn from and influence each other's knowledge through PAR (O'Brien 1998:[sp]). For example, the value of design in enhancing business success could be demonstrated to design clients by involving them in the design process (Phillips 2012:[sp]).

AR findings are extremely valuable for offering insights that might otherwise never have been obtained and that may provide hypotheses for testing in more generalisable applied research programmes. Great care should be taken when drawing generalised conclusions from action research findings, as they can only reliably be applied to the specific time, place, persons and circumstances in which the action took place (Archer 1995:12; Swann 2002:60-61).

3.4 Similarities and differences between AR and design

As discussed in chapter two, AR shows similarities with fourth order design activities in that it intervenes directly in real-life domains to solve problems or affect change. However, as pointed out in chapter two, research for design as part of the real life design process is information gathering aimed at understanding the specific design problem, generating ideas and creating effective solutions for the problem, rather than at developing knowledge. Often just enough research is done to enable the designer to complete the specific project. As a result, design practice does not necessarily develop design knowledge (Friedman 2003:520-522). Action research on the other hand, has the dual objectives of solving problems or affecting change *and* simultaneously expanding knowledge by learning from actions taken. Action research requires rigour, which is usually absent in research for design (Davison et al 2004: 68).

Although some authors argue that systematic, methodical and critical inquiry into design practice may advance academic design research, lack of rigour and methodological guidelines hamper research and the evaluation of results (Friedman 2003:520-522). Design research based on critical inquiry into practice has been criticised for lack of rigour

in testing results, and for jumping to prescriptions, tools and methods without properly understanding the underlying phenomena (Dorst 2008:6).

A notable article by Cole, et al (2008) suggest that a great degree of similarity exists between research for design and action research methods, since both intervene in real-life situations, rather than study phenomena after the fact. The paper proposes that research for design may benefit from a significant and established action research tradition (Cole, et al 2008:2). In support of their argument they apply very specific action research criteria, which were developed by Davison et al (2004), based on AR literature on a design exemplar. Before the similarities between research for design and action research can be explored, however, the action research criteria of Davison et al (2004:69-77) need to be understood.

3.4.1 AR principles of Davison et al

Davison et al (2004:69-77) propose five fundamental principles which AR should adhere to, and identify specific criteria to assess if each principle is being upheld in specific AR projects.

Principle one: The researcher-client agreement (RCA)

The RCA addresses the ontological assumptions of AR as discussed previously and forms the guiding foundation of any AR project. The RCA contains mutual guarantees for behaviour within the context of the project. Both the client and the researcher should understand how AR works and what the benefits and drawbacks are for the organisation / business. In the article, Davison et al (2004) caution that achieving this understanding may require some degree of knowledge transfer from the researcher to the client. Adherence to the principle of the RCA may be assessed by asking these questions:

- Did both the researcher and client agree that AR was the appropriate approach for the situation?
- Was the focus of the research project specified clearly and explicitly?
- Did the client commit to the project?
- Were the roles and responsibilities of the researcher and client specified explicitly?
- Were project evaluation measures specified?
- Were the data collection methods specified?

Principle two: The cyclical process model (CPM)

After the establishment of a RCA, the project usually commences. Activities typically follow a cyclical process model, with various phases as illustrated in Susman's model (Figure 8), consisting of diagnosis, planning, intervention, evaluation and reflection. Following the CPM in a sequential fashion should ensure a project conducted with systematic rigour. However, while a sequential flow is desirable, some iteration between phases is mostly necessary in practice. Therefore, to ensure that the required rigour is maintained, deviation from the CPM should be mentioned and justified explicitly in any and all results (Davison et al 2004:72). Other criteria pertain to specific stages of the CPM and can be measured by answering the following questions:

- Did the researcher conduct an independent diagnosis of the situation? While the client may identify various problems, the researcher has a responsibility to conduct an independent diagnosis in order to confirm and understand the problem and the context.
- Were the planned actions based on the diagnosis?
- Were the planned actions implemented and evaluated?
- Did the researcher reflect on the outcomes of the intervention?
- Was this reflection followed by an explicit decision on whether or not to proceed through additional process cycles?

Principle three: The principle of theory

As discussed in 3.3.3, the problem requiring research may be unclear at the start of an AR project. It is therefore highly unlikely that the theory used or developed in relation to the phenomenon being researched will be clear at the outset of the project. However, Davison et al (2004:74) suggest that the first or diagnostic phase provides a starting point, as the problem requiring research usually emerges during this phase. A literature review at the outset of the project could be useful to inform the focus and process of the research, and to help position the research results within existing scholarly knowledge. A grounded theory, supported by a thorough review of existing literature, should then emerge from the diagnostic phase. There are specific criteria to assess adherence to the principle of theory:

- Were project activities guided by theory?
- Was the domain of investigation and the specific problem relevant and significant to the research community, the researcher's peers, as well as to the client?
- Was a theoretically-based model used to derive the causes of the problem?
- Did the planned intervention follow from this theoretically-based model?

- Was the guiding theory or any other theory used to evaluate the outcomes?

Principle four: Change through action

The essence of AR is to take action to *change* or *improve* a situation or to solve a problem. For meaningful change to occur, the client and researcher must share an understanding of the organisational situation, which is also the research context. AR studies the interconnections, interdependencies and dynamics of a total functioning system. Both parties must be motivated to improve the situation and the problem should be considered within this context. Adherence to the principle of change through action could be assessed with the following questions:

- Were both the researcher and client motivated to improve the situation?
- Was the problem specified as a result of diagnosis?
- Were the planned actions designed to address the hypothesised causes?
- Did the client approve planned actions before they were implemented?
- Was the organisational situation assessed comprehensively before and after the intervention?
- Were the timing and nature of interventions taken clearly and completely documented?

Principle five: Learning through reflection

Explicit specification of learning is one of *the* most critical activities in AR. The researcher has a dual role – as participant in the research and as researcher. As a result, he / she also has a dual responsibility to clients *and* to the research community. Adherence to principle five answers a frequent call for research reports to specify the implications for both practice and further research. Learning from an AR project should involve the internal environment, enabling the client organisation to make changes that reflect new knowledge obtained through the AR project. Simultaneously, learning should involve the external environment in terms of the relevant research community, contributing to the advancement of knowledge by generating new theory or informing existing theory. Consequently, the following criteria can be used to assess adherence to this principle:

- Did the researcher provide progress reports to the client?
- Did both the researcher and the client reflect on the outcomes of the project?

- Were the research activities and outcomes reported clearly and completely?
- Were the results considered in terms of future actions?
- Were the results considered in terms of implications for the actions in related research domains?
- Were the results considered in terms of implications for the research community?
- Were the results considered in terms of the general applicability of AR?

3.4.2 Application of AR principles on design

A paper by Cole et al (2005:8-11) that stood out from the literature reviewed for this study, applies the criteria of Davison et al (2004:69-77) on an information system design exemplar to explore similarities and areas of overlap between design and AR. As discussed below, strong similarities emerged between AR and aspects of the design process.

3.4.2.1 The researcher client agreement (RCA)

In an AR project, a RCA document serves as an explicit agreement and commitment between researchers and clients on approach, research focus, objectives and roles. Values and assumptions of all parties are made explicit and agreed upon at the outset. Ideally, the criteria for an effective RCA should be met before an AR project can formally begin (Davison et al 2004:70; Cole et al 2005:3).

In the design process, a designer's first formal contact with a client normally is an opportunity to discuss the objectives, parameters and boundaries of the design brief. A design brief may be a detailed written document, providing information about client needs and objectives, stakeholders, target market, competitors, and the designer's expected role in solving the identified problem. A brief may equally be a very loose informal discussion between the client and the designer in order to clarify aspects of the design instruction that is unclear. Ideally, a clear understanding and agreement on the design brief should be reached before any practical design work commences. In practice, however, design work often commences without a clear comprehensive brief, which may result in ineffective and costly design failures (Phillips 2012:[sp]). During the development of a brief, the designer may need to assume the role of researcher, collaborating with the client to identify and understand the design problem, study the context or system in which the problem exists and gather and analyse information (Buchanan 2001:19; Frascara 2001:[sp]; Blankenship 2005:24-25).

3.4.2.2 The cyclical process model (CPM)

Susman's (1984:102) cyclical process model of change in Figure 8 strongly resembles Brown's model (2008) of the design process as illustrated in Figure 2. Both AR and the design process consist of a series of iterative cycles.

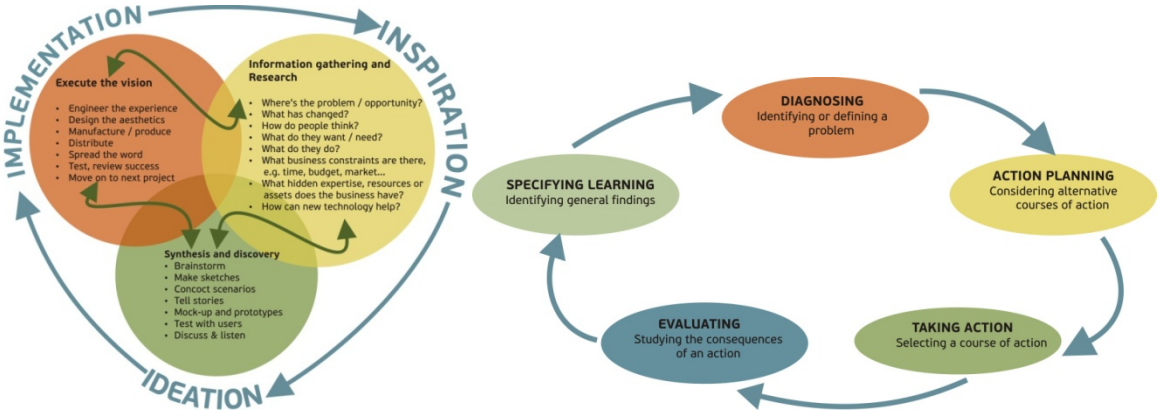

Figure 9: The design process (Brown 2008) vs. AR cyclical change process model (Susman 1984).

The first phase of both AR and the design process is diagnostic in nature, attempting to identify and understand the problem situation requiring change. Under the CPM the researcher conducts an independent diagnosis of the organisational situation. Although the client may identify one or more problem(s), the researcher has a responsibility to conduct an independent diagnosis so as to confirm or refute the nature of the problem (Davison et al 2004:73). Although the design client may approach the designer with what might appear to be a very specific problem in terms of a design instruction, the designer often asks questions and searches for information to confirm the problem as presented by the client. The diagnostic phase should ideally culminate in a clear and comprehensive design brief (Philips 2012:[sp]). When the design client has a limited understanding of design, or when the designer is still inexperienced with a lower level of expertise, the diagnostic phase may be neglected (Bruce & Bessant 2002:37; Paton & Dorst 2011:573). A misdiagnosed or misunderstood design problem can result in design outcomes that fail to address the real issues.

In AR, progress through the CPM in a sequential fashion is desirable to ensure systematic rigour. However, as the course AR may take is not predictable at the outset of a project, some iteration between cycles is common in practice. To ensure systematic rigour, Davison et al (2004:72) therefore suggest that any deviation from the CPM should be mentioned and justified explicitly in the project report.

In the design process iteration between phases is common – especially between the initial inspiration and ideation phases (Brown 2008:88). During phase one, diagnostic activities occur that may lead to a redefinition of the design problem, as discussed above. In phase two, idea generation activities occur and the designer explores and develops different conceptual ideas based on the brief, to present to the client. However, a search for information to support the development of ideas is essential to this phase of the design process. Sometimes, based on new information, the brief may need to be revisited and revised, leading to an idea being discarded and the designer starting over again (Tan & Melles 2010:473). Even the best written brief is not set in stone and may be revised, provided that the revisions can be justified and offer a better solution to the problem (Phillips 2012:[sp]).

3.4.2.3 Action informed by theory

According to the principle of theory, the domain of investigation and the specific problem setting should be of interest to the client, as well as the researcher's community of peers. A model based on theory should be used to determine the cause of the problem, change activities should follow from this model, and outcome evaluation should be guided by theory. Typically, changes to theory take place during the reflection stage of AR and may lead the project into an additional cycle (Davison et al 2004:75; Susman 1983:12).

Although aspects of practice-based projects may potentially be relevant and significant to the wider community of design practitioners and design researchers, they fail in terms of the principle of theory of Davison et al (2004). Normal information gathering activities for practice-based design projects are project specific. They are not necessarily theory-based, as many designers tend to rely heavily on tacit knowledge, and often only extend as far as the designer's need to complete the project (Dorst 2008:6; Friedman 2003: 520-522). Design practitioners seldom reflect or report on project outcomes in any formal, systematic manner, which means that although project outcomes and processes might be relevant and significant to their peers, design practitioners do not commonly articulate theories that may have developed from practice-based projects (Friedman 2003:519).

3.4.2.4 Change through action

This principle emphasises the interconnectedness of change and action. Absence of change could imply an ineffective intervention or the absence of a problem. For change to occur, all stakeholders need to be motivated to improve the situation, and understand and agree on the problem and its hypothetical causes (Davison et al 2004:75). Change can occur on a personal and an organisational level (Cole et al 2005:8). For example, in a

design context, on an individual level, the design client could learn what information the designer needs in a good design brief, the designer could learn to manage the design process better and to use participatory approaches when doing research for design projects (Bruce & Docherty 1993:416-420). On an organisational level, the client organisation could learn more about the value that could be added to their organisation by employing design as a strategic resource (Philips 2012:[sp] & Jevnaker 1193:394).

3.4.2.5 Learning through reflection

Explicit specification of learning is the activity that differentiates AR from ordinary problem-solving activities. The need to report on learning is a consequence of the dual responsibility of the researcher to the client and to the research community (Davison et al 2004:77). Reflection during the cyclical process is essential to maintain focus on the client's problem (Cole et al. 2005:9). This is evident in the design process during the ideation and implementation phases, when prototypes are made, tested, presented to and discussed with the client, and at the end of the design process when the design outcome is evaluated (Brown 2008:88; Philips 2012:[sp]).

Learning is essential to advance knowledge towards the goal of making a theoretical contribution (Davison et al 2004:77). Although learning does occur during the design process, designers do not necessarily keep record of their reflections during the design process, nor do they document the learning that took place. The result is that research for design, during the normal course of a designer's daily activities, is seldom able to contribute to knowledge (Friedman 2003:519). This is where action research as an approach during the design process could be useful towards theory construction during design.

Criterion	Description
Principle of Researcher Client Agreement	The RCA provides the basis for mutual commitment and role expectations, values and assumptions (In PAR, all stakeholders can be regarded as both client and researcher)
Principle of Cyclical Process Model	The CPM consists of diagnosing, action planning, action taking, evaluating and specifying learning stages

Criterion	Description
The Principle of Theory	Theory must play a central role in action research
The Principle of Change through Action	Action and change are indivisible research elements, related through interventions focused on producing change
The Principle of Learning through Reflection	Considered learning and reflection allow a researcher to make both a practical and theoretical contribution

Table 1: Summary of the action research criteria of Davison et al (Cole et al. 2005:6)

Design, like action research, is a problem-solving activity with a social purpose, and impacts where action is informed by knowledge, albeit tacit knowledge in the case of design. Swann (2002:52) is quick to point out though that probably the biggest challenge for design in the current design practice paradigm would be to apply the conditions of systematic reflection and empowering participation that are inherent in action research, to design.

Based on the previous section, some form of action research, and more specifically, PAR appears to be a suitable approach for this study, as it allows for research for design: the real life project that has to succeed one way or the other, and the simultaneous demand of academic research, with knowledge as goal. None of the tools listed by Sanders & Chan (2007:[sp]) in Figure 7 appeared immediately appropriate or practical for use to achieve the specific aims of this study. The Search Conference tool used in management contexts jumped out as a practical and suitable research tool, and is introduced in the next section.

3.5 Tools and methods

The tool used for this study and developed especially for participatory action research, is the Search Conference, a democratic, participatory planning process initially developed by Eric Trist and Fred Emery, founders of the Tavistock Institute for Social Research (O'Brien 1998:[sp], Owen 1992:1-11). Search Conferences are conducted in groups composed of relevant stakeholders.

Opening sessions of Search Conferences are typically concerned with establishing context by elucidating the factors operating in the wider organisation or system. Content is

determined entirely by participants. Items are listed first, without criticism, and displayed prominently for all to see. These items are subsequently discussed in greater depth in smaller groups, and the composite picture presented in a plenary session. The group next examines its own organisational setting against this wider background and then proceeds to construct a picture of a desirable solution (Trist 1979: 23-24; Owen 1992:1-11).

The Search Conference has seen widespread development and several variations are known under other names. These include Dannemiller-Tyson's Interactive Strategic Planning, Marvin Weisbord's Future Search Conference, ICA's Strategic Planning, and Owen's Open Space Technology (O'Brien 1998:[sp]). Out of these, Open Space Technology (OST) has been selected for this study, because of its effectiveness in situations where diverse people must deal with complex and potentially conflicting material in productive and innovative ways. When nobody knows the answer and the participation of a number of diverse people is required to deal with the questions in a creative manner, this has proven to be a very effective approach (Owen 1992:12). The guiding rules and principles of OST are discussed in chapter four, where their application in practical workshops for this study is discussed in detail.

3.6 Summary

This chapter examines the role and importance of research in a human-centred approach to design, which became necessary due to the shift in range and complexity of problems that designers face as discussed in chapter two.

To fulfil complex social, economic and environmental responsibilities, while meeting the design client and end-users' needs, designers must identify and gather information about all factors pertaining to the design problem from the outset of the project, through to what is called research for design or studio research.

As typical day-to-day design projects allow only limited time and resources for research, immediate access to a robust and relevant body of knowledge stemming from academic design research is essential to assist especially senior designers to distinguish among classes of problems, likely alternative approaches and where and how these are applicable to specific situations (Friedman 2003:511). In other words, design involves research on two levels: Firstly, studio research focusing on information needed to solve a specific problem is required for each unique design project. Secondly, academic research that focuses on generating new generalisable knowledge and theories is needed to equip designers with robust and relevant approaches, tools and methods. Design knowledge is

gained from initial training, tacit knowledge gained from experience, general contact with other practitioners in the industry and from research. Consequently, the development, growth and evolution of various approaches to design were explored in this chapter.

Developments in design research over the past two decades suggest that a more participatory approach could address real concerns of practice, such as the need to understand user needs and expectations within a specific context (Liem & Sanders 2011:110; Prahalad & Ramaswamy 2000:80-81; Strickler 1999:38-39; Sanders 2002:[sp]).

A map of the evolving participatory design landscape, developed by Sanders and Chan (2007:[sp]), was useful in exploring the various approaches tools and methods available, but it was found that these focus primarily on information gathering, showing little or no concern for developing theory. Therefore, they did not appear to be suitable or practical for this study.

Consequently, literature about action research (AR) and more specifically participatory action research (PAR) was explored, suggesting that PAR as a holistic, systematic enquiry, conducted through practical action with the dual aim to address practical concerns in an immediate problematic situation, and to study the goals and processes with the aim of expanding knowledge, could offer an appropriate approach for this study (Svengren 1993:444-456; Archer 1995:11).

Subsequently, literature about an application of a set of principles and criteria developed as methodological guidelines to assure that AR satisfies the requirements of rigour and relevance (Davison et al 2004:65-78) on a design exemplar (Cole et al 2005), was explored. This literature suggests that strong theoretical similarities and overlap exist between aspects of the design process and action research, which further supports the argument for PAR as a suitable approach for this study.

Chapters four and five describe a practical exploration as part of a real-life design project that involves the participation of stakeholders, such as the client and the end-user. It shows the use of PAR during the initial inspiration and ideation phases of the design process, with the aim to developing a design brief that addresses the designer's need to understand the client's business needs and objectives as well as the end-users' needs, desires and expectations.

CHAPTER 4: PRACTICAL EXPLORATION OF STAKEHOLDER PARTICIPATION

The previous two chapters discussed the background, context and research approaches for this study. As part of a real-life design project that involves the participation of stakeholders such as the client and the end-user, this chapter illustrates the use of PAR during the initial inspiration and ideation phases of the design process, with the aim to develop a design brief that addresses the designer's need to understand the client's business needs and objectives, as well as the end-users' needs, desires and expectations. Firstly, stakeholders are identified and described, followed by a description of the three-phased research process followed. Subsequently, information gathered and discoveries made in each phase, as well as the designer's analysis of these, are discussed. The chapter concludes with a detailed discussion of the last phase, which consists of a final brief based on a collation and analysis of outcomes from the previous phases, and a creative proposal based on the designer's synthesis of this information.

4.1 Stakeholders

According to the principles of PAR as discussed in chapter three, research is not done by objective observers, but rather by participants who participate explicitly in all processes in order to test or shed light on something. PAR is a collaborative, democratic and empowering effort where identifying and actively involving all stakeholders in a system are important. This practical exploration involved representatives from four stakeholder groups, namely the designer, the design client, the design client's sales consultants and the end-users, which are referred to as customers.

4.1.1 The designer

The designer[15] is the owner / manager of a small design consultancy, named The Image Foundry. The consultancy comprises of her and one full-time junior designer. She has twenty years' experience as a designer, five of which were as a junior designer and / or senior designer in medium-sized design studios, three as an in-house design manager for a large multi-national information technology company and the last ten in her own practice.

Although The Image Foundry has a few large corporations as clients, projects for SMMEs contribute most of its revenue. The consultancy has a long-standing relationship of five years with the client selected for this project.

[15] Lizette Carstens: Executive Creative Director, Senior Designer and Owner of the Image Foundry (www.imagefoundry.co.za). This study is conducted as part of Lizette's postgraduate studies. This is an example of the dual role of a designer / researcher, where academic research and real-life design is conducted simultaneously.

The Image Foundry's philosophy is that building and maintaining strong client relationships is more sustainable and lead to better design outcomes. Consequently, the approach to any project is to gather as much information as possible to understand the business problem and the client's needs in order to ensure the most effective design outcome.

Because they have limited experience in buying and managing design, many clients approach The Image Foundry with a very tight, but unclear brief, stating only a perceived need without explaining the business problem or objectives. To address this problem, it is standard practice at The Image Foundry to start with an unstructured or semi-structured interview with the client at the outset of any project to gather as much information as possible. The interview is followed by a creative proposal containing a short summary of the business problem, a profile of the business, competitors and target audience and a suggested creative strategy for addressing the problem. Unfortunately, clients often have little information available and / or sometimes fail to see how The Image Foundry's questions relate to their brief, causing much frustration and sometimes resulting in unsatisfactory design outcomes.

4.1.2 The design client

Client and project selection for this study were influenced by three factors. Firstly, to maintain validity, the client needed to be a SMME with limited resources and a limited understanding of design. Body Inc, established in 2005, is a small diet clinic franchise comprising of eleven franchises and a head office, each with between one to three employees. Although Body Inc. has been buying design services from The Image Foundry since 2008, its briefing method generally consisted of either an informal verbal discussion with the designer, or an email stating a perceived need for a specific design outcome with suggestions regarding visual appearance in terms of colour preferences and pictures, consistent with a first order approach to design. This project was no different, with the brief being an email, stating a perceived need for a specific design outcome.

Ms Lize Crawley, the owner of Body Inc., directs all aspects of the business, except for the day-to-day operations of clinics and client consultations, from its head office in Krugersdorp. Ms Crawley is solely responsible for all product-related decisions, such as research and development, the range of products, packaging, marketing and distribution. Although Ms Crawley has no formal training in marketing management or product research and development and has never previously conducted or commissioned any market

research[16], she solicits her consultants' views and opinions regarding products and services regularly on an informal basis. She believes that this offers important and useful information about customers and their use of the Body Inc. products. Ms Crawley has some previous experience of using and managing design services, which she described as positive in the client designer interview[17].

Design management literature suggests that the general approach to design management includes three basic steps, namely sourcing, briefing and evaluating – expertise that is limited in many SMMEs as discussed in chapter one (Bruce et al 1999:300-302). Sourcing refers to the method used by the client to source a designer. This may include, among others, personal recommendation or past experience. Buying design services requires some skill from the client in order to discern the appropriate expertise required for the project. Some degree of trust and 'personal chemistry' between the client and the designer is valuable to promote an open and creative dialogue (Iduarte & Zarza 2010:20-33). Body Inc. previously sourced design services based on personal recommendation. No design portfolio or any examples of work were viewed. According to Ms Crawley, the decision to use The Image Foundry's services was based on the rapport established during an initial briefing interview for Body Inc.'s corporate identity in 2008, the fact that she liked the subsequent creative proposal and the competitive cost estimate the designer provided for a corporate identity[18]. The Image Foundry was subsequently employed in 2009 to design a range of labels for all Body Inc.'s products, promotional posters, a website, a diet and exercise book that all new customers receive upon registration on the programme, and several promotional brochures.

Secondly, as discussed in chapter three, one of the ethical considerations of PAR is mutual trust and respect among participants. Therefore, strong relationships between the designer and client, as well as good client-customer relationships are important. As Body Inc. has been buying design services from The Image Foundry on a regular basis since 2008, a cordial long-term relationship existed. From knowledge gained through previous projects, The Image Foundry was aware that Body Inc. offers a holistic slimming programme that includes an eating programme, nutritional supplements, an exercise regimen and weekly monitoring sessions. The initial slimming program spans ten weeks, but many customers remain on it for far longer. The Image Foundry has also been told by

[16] According to Ms Crawley in the transcript of the semi-strucutred cient-designer interview, Appendix C
[17] Appendix C: Transcript of semi-structured interview with Ms Crawley.
[18] According to Ms Crawley in the transcript of the semi-strucutred cient-designer interview, Appendix C

Body Inc. previously that a close relationship usually develops between customers and consultants during this time.

One of the basic principles of PAR, as discussed in chapter three, is that participants choose to participate because they care enough about the problem to become involved in finding a solution. Consequently, the main factor influencing project selection for this study was that the potential consequences of an ineffective design solution should outweigh the financial and personal cost of participation in the study. Redesigning the containers and visual appearance of the Body Inc. product range seemed an ideal project for this study. Typically, product packaging has a long shelf life, spanning over several years, compared to a brochure or poster, which may only be useful for weeks or months. The processes and cost involved in producing product packaging are significantly higher than for a brochure or poster. Poorly designed packaging can lead to losses for the client, retailers and customers if it is prone to breaking or spilling or doesn't adequately protect the contents from spoiling or tampering. Visually unappealing packaging can cause customers to choose a competitor's product, and packaging that is difficult to open for example, can lead to an unpleasant and frustrating user experience.

The Body Inc. products that required new packaging consisted of several homeopathic products and nutritional supplements, specially packaged for the client under its own brand. These products included slimming tablets, slimming drops, colon support – a product stimulating colonic activity, Thyrostim – stimulating thyroid function, a multivitamin, whey protein, a slimming gel – a firming massage gel, an artificial sweetener and a specially formulated metabolism-boosting coffee. See Figure 10.

Figure 10: Body Inc. products, from left: slimming tablets, colon support, multivitamin, slimming drops and slimming gel (Whey protein, sweetener and coffee not displayed).

4.1.3 Consultants

Body Inc. franchises are run by consultants who are, for the most part, also the franchise owners. Consultants work directly with customers, monitoring, motivating and introducing customers to supplementary products and selling it to them. Consultants from the franchises in Krugersdorp, Randfontein, Magaliesburg, Hartbeespoort, Lenasia, Johannesburg, Kempton Park and Pretoria were invited to participate in the study. Due to cost and geographical constraints, the Kimberley and Namibian franchises were excluded.

4.1.4 Customers (users)

According to Ms Crawley[19], customers are mostly female between the ages of 30 and 50. The youngest customer currently is 16, and the oldest is in her sixties. All customers are from middle income households (between 100 k and 500 k per annum), and there is an even distribution between employed and unemployed (housewives). On average, customers stay on the programme for 12 to 20 weeks, but continue buying supplements and products even after completing the slimming programme. Although 90% of customers are female, some male customers do from time to time also join. In Ms Crawley's experience, male customers tend to lose weight faster and normally do not stay on the programme for as long.

[19] Appendix C: Transcript of semi-structured interview with Ms Crawley.

4.2 The process

As described in chapter two, the design process consists of three iterative phases, each involving specific activities or mini-processes. According to literature about design management, the first phase of the design process involves four areas of activity, namely briefing, interpretation, idea generation and presentation. Briefing involves the identification of the design problem, definition of the scope and type of project and the identification of design outcome requirements (Tan & Melles 2010:466).

In this study, a first pre-brief phase is discernible. Body Inc. did not approach The Image Foundry with a fully developed, workable design brief. Its initial commission was an email[20] that contained only an instruction to redesign packaging and some suggestions as to the look of the new packaging. Although instructions contained some information about the project requirements, type and scope, a clear definition of a design problem was absent, as was any information about the business objectives, intended target audiences, and competitors. Phillips (2012:[sp]) quite clearly points out that the business objectives, target audience and competitors have a significant impact on the design problem, project scope and project requirements. This lack of information in many of its clients' initial briefs had already led to The Image Foundry conducting unstructured or semi-structured interviews with clients to gather more information, prior to undertaking any creative work.

However, as discussed earlier in this chapter, in The Image Foundry's experience, even interviews with clients often yield limited information about the end-user / customers and their needs and expectations. This phenomenon has prompted the study presented here, exploring user participation as a means to gather more information about user needs and expectations. The process for the practical exploration consisted of four phases, each with specific activities. The phases are introduced below, followed by a more in-depth description.

Phase 1: A semi-structured interview[21] with Ms Crawley from Body Inc. to gather information pertaining to the business problem, objectives and background.

Phase 2: Information garnered from this interview was analysed and interpreted into a first or draft brief / proposal[22]. Based on information from the interview and the draft proposal, user needs and expectations were identified as an area where more information was

[20] Initial design order in email dated 04/06/2012, Appendix G
[21] For more detail, the transcript of the interview can be viewed in Appendix C.
[22] The first draft brief / proposal can be viewed in Appendix D.

required. Phase two was consistent with analysis and interpretation activities as described by Tan & Melles (2010:466).

Phase 3: As discussed in chapter three, literature on design research suggests that user involvement in the design process could be valuable in discovering user needs and expectations. Participatory workshops based on the principles of Open Space Technology (Owen 1992) and involving all stakeholders as identified above were therefore conducted in phase three to gather information about users' needs and expectations of the Body Inc. products. At the end of this phase and during phase four, activities shifted from interpretation to idea generation, where the designer synthesised a design strategy based on her interpretation of available information.

Phase 4: A final brief and proposal was compiled by The Image Foundry[23]. This proposal included a creative strategy based on a collation of information gathered during the previous phases and the designer's interpretation of users' proposed solutions. Subject to Body Inc.'s approval, this brief / strategy would form the basis for the final step in the initial phase of the design process, namely the development of concepts and a visual presentation.

4.2.1 Phase one: Semi-structured interview with the design client

When The Image Foundry received an email from Body Inc. in July 2011 commissioning "….a complete redesign of all our packaging, changing the background to black and using brighter colours to achieve a more modern appearance"[24], it presented the perfect opportunity for this study. Consequently, The Image Foundry approached the owner, Ms Crawley, with a proposal to participate in a research project to gain more information about customer / user needs and expectations. The proposal stated clearly that although a normal design project, it would be documented as a case study forming part of an academic research project. Body Inc., its consultants and customers were offered the option of remaining anonymous and of withdrawing their participation at any time should they feel the need to. Body Inc. not only agreed to participate, but also granted The Image Foundry access to its customers and permission to publish the company and owner's names, as well as any visual material, any articles or other material related to the study.[25]

The objective of a designer-client interview is to gather information pertaining to the business problem and objectives, project background, business profile, competitors and

[23] Appendix E contains a copy of the final brief / creative proposal.
[24] Initial design order in email dated 04/06/2012, Appendix G
[25] A proposal and consent letter were presented to the client (appendix A) and signed by her

target audience. Inexperienced design clients often approach the designer with a seemingly tight brief, stating only a perceived need, such as: “I need to put a label on this bottle and I would like it to be green with a picture of a beautiful woman on it”. These clients are often unaware that the quantity and quality of information provided impact on the design outcome. For example, information about business objectives, target audience and competitors can have a significant impact on the design problem, project scope and project requirements (Phillips 2012:[sp]).

The lack of information in many of its clients’ initial briefs has resulted in The Image Foundry compiling a standard set of questions based on design management literature such as Phillips’ book (2012:[sp]). These questions are put to the design client during an unstructured or semi-structured interview, prior to undertaking any creative work. For the purpose of this research, the questions were integrated in a formal interview schedule[26] and cover six broad areas, namely:

- *Background information* about the type of business in terms of its business activities and the industries it operates in,
- *Business objectives* that it wishes to achieve with the specific project, for example increasing sales or differentiating from competitors,
- *Products affected by the project* and how these fit into the overall business strategy,
- *Target audiences* in terms of demographic and psychographic profiles, as well as any other information that may offer insight into the target audience’s interaction with the client,
- Direct and indirect competitors, and
- *Practical considerations,* such as logistics and legislation, timeframe and budget.

At the start of the interview, Ms Crawley was reminded that notes of the interview would be transcribed and used for research purposes, that she and Body Inc. had the option to remain anonymous and that she could end the interview at any point.

Ms Crawley was able to answer all questions, but had limited information about areas such as user needs and expectations, which quickly became apparent. As no market research had been done, Ms Crawley was only able to offer her own opinions based on her and her consultants’ interactions with customers about user needs and expectations and certain user behaviours. Regular interpersonal contact between Ms Crawley, her consultants and

[26] Appendix B, formal interview schedule.

customers, means that she has a good sense of who her customers are and what they want – a common occurrence among SMMEs worldwide (Iduarte & Zarza 2010:25; Bruce et al 1999:299). The interview process benefitted from a pre-existing, long-term client-designer relationship, because the designer had prior knowledge about Body Inc., which allowed her to select her questions carefully.

4.2.2 Summary of the interview

Background information

Body Inc, established in 2005, is a small diet clinic franchise comprising of 11 franchises and a head office. The company started out with a single clinic in Randfontein and has grown to nine franchised clinics across Gauteng and the North West Province, one in Kimberley and one in Windhoek, Namibia. Except for two clinics, franchises are all owned by the consultants and have one to three employees. Body Inc.'s head office is situated in Krugersdorp and employs three people.

Ms Lize Crawley, the owner of Body Inc, directs all aspects of the business, except for the day-to-day operations of individual clinics and client consultations. She is solely responsible for all product-related decisions, such as research and development, range of products, packaging, marketing and distribution. Although Ms Crawley has no formal training in marketing management or product research and development and has never previously conducted or commissioned any market research, she solicits her consultants' views and opinions regarding products and services regularly on an informal basis. She believes that this offers important and useful information about customers and their use of the Body Inc products. Ms Crawley has some previous experience of using and managing design services (Crawley 2012:2). She was directly involved in the design of the existing product labels and also chose the containers of products from available options on the market.

Business objectives

Ms Crawley emphasised that, although she had received informal feedback from consultants and customers, no research had been done prior to the decision to change the packaging labels.

She highlighted a number of factors that played a role in the decision to change the product labels. Firstly, industry trends had changed, moving to a stronger, bolder and more modern visual appearance. Secondly, Body Inc planned to launch a new product range of

pre-cooked meals early in 2013. A new identity that would fit with the existing brand needed to be developed for the new product range. Therefore, Body Inc. felt that it was an opportune time to examine and redesign all packaging labels. Lastly, and not included in the aims of the workshops, informal, anecdotal feedback from consultants and customers indicated that the feminine appearance of existing packaging did not appeal to male customers.

Body Inc. hoped that new labels would differentiate its products from competing products on pharmacy shelves. Ms Crawley remarked that interest in some of the supplements by fitness conscious male customers had prompted her to consider a brighter, bolder image and that she hoped that a less feminine appearance would appeal to this audience and increase sales. Lastly, Body Inc believed that the inherent promise of its brand was a confident, modern, yet elegant image, which it wished to reflect on its product labels. Ms Crawley said that even though she had not conducted research to support her idea, she believed that customers would relate to a celebrity endorsement like actress Catherine Zeta Jones, whom she described as mature, strong and elegant.[27]

Target audience

Customer registration data had been compiled into a customer data base, from which it was determined that although customers were mostly female between thirty and fifty years, roughly 10% of customers were male. Body Inc had identified the life partners of female customers as a potential target audience, because according to informal feedback from customers, partners were often also overweight. The youngest customer at the time was sixteen and the oldest was in her sixties. Customers were from middle income households (between 100 k and 500 k per annum), with an even distribution between employed and unemployed (housewives)[28].

Customers were predominantly white English or Afrikaans speakers, with the exception of the Fordsburg and Lenasia clinics, which had predominantly Indian customers. During the client-designer interview, Ms Crawley attributed this racial mix to the fact that customers were usually from the immediate geographic areas, with most clinics situated in suburbs with predominantly English or Afrikaans residents.

[27] According to Ms Crawley in the transcript of the semi-strucutred client-designer interview in appendix C
[28] According to Ms Crawley in the transcript of the semi-strucutred client-designer interview in appendix C

Customers stayed on the programme for twelve to twenty weeks on average, but continued to buy supplements and products after completing the slimming programme. According to Ms Crawley[29], in her experience, male customers tended to lose weight faster and normally did not stay on the programme for as long.

Unexpected interest in Body Inc's nutritional supplements from fitness conscious males was a motivating factor in the decision to redesign product labels, but Ms Crawley was aware that changing the visual appearance of labels alone would most likely not be sufficient to reach this audience. She conceded that market research might be required before actively pursuing this audience.

Competitors

Body Inc identified one direct competitor with a similar product offering. Several other slimming programmes with different approaches were identified as indirect competition. Ms Crawley believes strong customer support, a wide range of supplementary and nutritional products and competitive pricing are the main differentiators between Body Inc and its direct competitor. She said that consistent branding across products and a consistent, clearly recognisable image differentiates them visually.

Practical considerations and product information

Body Inc.'s product offering consists of nine natural, homeopathic nutritional supplements and slimming aids, and two food products. The range of food products was to be expanded early in 2013 to include a range of readymade convenience meals. All products were being manufactured by third party manufacturers and then labelled Body Inc — some by the manufacturers, but many by the client.

Body Inc indicated that products affected by the label change would include all existing supplements and slimming aids, as well as the food products. Two of the products showed low sales volumes, which Ms Crawley ascribed to limited awareness among customers.

In the interview, Ms Crawley stipulated that the Body Inc logo was to appear on all supplements and slimming products. She requested a new logo design for the range of foods, but stated that it had to be clearly identifiable as being part of the Body Inc brand. She stipulated that Body Inc's established purple and green colour scheme had to be retained, but expressed a willingness to consider stronger hues of these colours. Ms

[29] In the client-designer interview, appendix C

Crawley felt that the green leaf motif on the existing product labels represented the natural ingredients used in the products. The company would prefer to retain the leaf theme, although not necessarily the exact same motif. She also indicated that, based on informal customer feedback, images of lean, fit individuals on the labels had worked well in the past.

Ms Crawley said that Body Inc.'s sales volumes did not warrant the cost of developing its own unique containers. Consequently, Body Inc product labels have been placed on standard containers supplied by the product manufacturers. As a result, Body Inc had no control over the amount of product per container. Some products, such as the whey protein and slimming gel, came standard in bulk containers, which meant that customers had to fork out a lot of money for more product than they might have wanted or needed. Label designs had to fit manufacturers' standard containers and comply with the manufacturers' packaging processes and facilities. Product information, such as contents, directions for use and expiry date were specified by suppliers and had to be incorporated in the label designs. Although some of the smaller suppliers were willing to accommodate unique containers, these still had to comply with the manufacturers' standard packaging processes and facilities.

Product distribution

According to Ms Crawley, all customers were being introduced to products during consultations. Consultants were actively encouraging sales of products and there was a close correlation between the products a consultant chose to promote, and the sales volumes of these products. Furthermore, franchise clinics were situated within pharmacies and all Body Inc products were available on these pharmacies' shelves, together with any other slimming products they stocked.

Timeframe and budget

Body Inc had a limited budget and Ms Crawley was clear that they would prefer a phased approach to rolling out new designs. Its food range was identified as being the most urgent, followed by the slimming tablets and slimming drops, which were best sellers. She expected to see the project completed by April 2013.

4.2.3 Phase two: Analysis and interpretation of information into draft proposal

The client-designer interview provided The Image Foundry with much more information than the client's initial brief, but a distinct information gap emerged. Body Inc was able to

give only a superficial overview of one target audience comprising of existing customers. This information offered very little insight into how existing customers were interacting with the products, what they were expecting from the products, or what could be added or changed to enhance their experience with the products. Virtually no information was available about the potential target audiences that Body Inc had identified. As previously discussed in the introduction to this chapter, user needs and expectations can have a significant impact on the scope and nature of a project.

Interestingly, no market research had been done prior to the interview, yet Ms Crawley had definite opinions on the visual appearance of labels, what their target primary target audience liked and whom they would identify with, based on what she termed a "gut feel". The Image Foundry speculated that this "gut feel" might have been based on tacit knowledge gained through experience and informal feedback from customers and consultants, but its accuracy remained to be tested.

After the interview, the designer was able to add more information and make suggestions based on incidental knowledge gained through previous experience on projects for the client. As discussed in chapter one, a major benefit of long-term client-designer relationships is that the designer is able to learn about the personality of the client's business, the company goals, the direction in which the business is headed and the company's manufacturing and development capabilities (Bruce & Docherty 1993:421). The intimate working relationship and mutual trust that had developed between the designer and the client had also been conducive to the designer developing a strong sense of Body Inc.'s spirit or identity, which is a common occurrence in close client-designer relationships (Bruce & Docherty 1993:416). This tacit knowledge of the designer, plus observational notes about packaging trends in other slimming and beauty products, were combined with the client's information to draft a written brief / proposal which was presented to the client[30]. Below follows a brief summary:

4.2.3.1 Summary of draft proposal

Based on the analysis of available information, The Image Foundry's interpretation of Body Inc's business problem hinted at a wider design problem than the mere redesign of labels. Body Inc's existing profile reflected a visual treatment that was developed six years ago to appeal to what was expected to be a predominantly middle-aged, (forty plus) female, middle to higher income group, target audience. The use of a white background with pastel colours reflected the prevailing trend at the time of a clean, soft, feminine appearance. A

[30] For the complete first brief / proposal, see Appendix D.

larger, younger than expected target audience, as well as recent developments pointing to other potential expansions in target audience, called for a stronger, more dynamic visual treatment of labels, as well as the Body Inc brand identity.

During a visit to local pharmacies and beauty and healthcare shops, the designer observed a trend towards strong, bold visual treatments, which further supported the need for a change. Dark backgrounds, clear, vibrant colours, clean lines, bold, strong fonts and simple, stylised images or large photographs appeared to be popular visual treatments for beauty, health and food products.

Body Inc's main competitor has no cohesive visual treatment and according to The Image Foundry's observations, secondary competitors still follow a pastel-on-white treatment. It would therefore appear that Body Inc might do well to consider changing its brand colours to more vibrant hues against a black background.

Figure 11: Some competitors in the slimming industry follow a pastel-on-white or bright-–on-white treatment.

An analysis of the Body Inc portfolio of products led The Image Foundry to propose changes to Body Inc.'s existing branding strategy. In keeping with its holistic approach to slimming, and with a growing demand for easier, more convenient meal plans, the Body Inc portfolio will be expanded in 2013 to include a range of readymade prepacked meals.

In the interview, Body Inc stipulated that the design solution had to incorporate company branding elements on all labels in order to maintain cohesiveness, appeal to its expanding target audience, and to differentiate it from competitors. Its primary activities are focused in the slimming industry, but because some products also compete in the beauty industry (slimming gel), the health and fitness industry (whey protein and colon support) and the convenience food industry (prepacked meals), an umbrella strategy would appear to be most suitable.

Additionally, recent interest in Body Inc from audiences outside the slimming industry suggests that some product ranges appeal to wider audiences. To take advantage of this, the company may do well to consider creating a clear visual distinction between slimming products, health supplements and convenience foods. An umbrella strategy with a tiered branding approach would clearly distinguish different product ranges from each other, while maintaining a cohesive brand. The Image Foundry considered this treatment viable as the existing logo lent itself well to the development of subtle variations.

Body Inc indicated that a phased approach to the project would be preferable. Accordingly, The Image Foundry suggested four phases to the project, starting with subtle changes to the existing brand identity, followed by the development of variations on the logo, which could be applied to the different product ranges. The next phase would involve a new visual treatment on all existing product labels, and lastly, by the design of new labels for the new product range.

This brief notably excludes any consideration for the needs or expectations of users. Yet, The Image Foundry's interpretation of the design problem, based on wider information and consequently its proposed solutions, has already departed from what would have been a mere visual redesign of product labels as expressed in the client's first brief.

4.2.4 Phase three: Participatory workshops

The approach followed for workshops adhered to the principles of Open Space Technology (Owen 1992:68-74). Open Space Technology (OST) was selected as method because of its effectiveness in situations where diverse people must deal with complex and potentially conflicting material in productive and innovative ways. When nobody knows the answer and the participation of a number of diverse people is required to deal with the questions in a creative manner, OST is a very effective approach (Owen 1992:12).

To ensure an optimal working environment and achieve suitably diverse input, two workshops were conducted. In doing so, participants per workshop were limited to a number optimal for one-on-one interaction between the designer and participants, but simultaneously a larger number of participants were involved in total, ensuring a more diverse conversation.

The first workshop had fifteen participants, which comprised the designer, Ms Crawley, four consultants and nine customers. Six customers, two consultants, Ms Crawley and the designer participated in workshop two. Only the designer and Ms Crawley participated in both workshops. To stimulate discussion, test reactions and solicit information, the

designer moved between groups, asked questions, offered suggestions and participated in group discussions and activities. Emerging comments, criticisms, suggestions and ideas from participants during group discussions and final presentation were noted. All “designs” created by participants were collected and photographed to use as reference material for analysis of the workshop outcomes. Careful analysis of and reflection on workshop outcomes in the form of notes, visual material of users’ proposed solutions and the designer’s own experiences during workshops offered much information about users’ unmet needs, frustrations and expectations.

Users’ proposed solutions served as inspiration and stimulus for new ideas and potential solutions by the designer. In phase three, the designer gathered more information, which enabled her to understand and interpret not only the client’s needs and expectations, but also those of end-users.

4.2.4.1 Preparation

In preparation to workshops, Owen (1992:24) suggests that invitations to potential participants contain just enough information to intrigue the recipients. Ideally, the information provided should only state the aim of the workshop and include logistical details such as the date, time and venue. He also points out that a creative or fun approach to the invitation usually works well (Owen 1992:24).

Accordingly using a playful twist on Carol Lewis’ Alice in Wonderland, the invitations – handed out by Ms Crawley and / or her consultants – hinted at the notion that in any situation there is always room for improvement, and with imagination, anything is possible. Participants were informed that the workshops formed part of a research study and clearly stated that participation was completely voluntary and confidential, and that they were free to leave at any time should they wish to. Also included was a consent letter asking participants’ consent to use material and records of the workshops in this study, which they were asked to sign and bring with to the workshop.[31]

[31] For a copy of the consent letter, see Appendix E.

Figure 12: From left: Front, inside and back of invitations to participants.

Owen (1992:24) has very specific guidelines for the venue setup of workshops. Any venue is suitable, but the layout has to be informal, with movable furniture and a notice board or pin up area. In accordance, workshops were conducted in an informal setting. A meeting room at a local coffee shop was booked for both dates. Venue management was asked to arrange seating in a circle in the centre of the room. Work areas in the form of large tables were placed around the edges of the room and a pin up area was created along the front wall. Because some participants were following the Body Inc. slimming programme, dietary guidelines for refreshments were given to the venue management. As Owen (1992:35) discourages specific refreshment breaks, because these may disrupt the flow of discussions in a group, refreshments were available at the back of the room throughout the day.

Workshops were intended to end with participants' visual presentations of their proposed solutions, which would serve as a visual record for reference and analysis. To facilitate the creative process, participants received pre-packed toolkits, containing blank paper (white and various shades of the brand's green and purple), post-it notes, Prestik, felt-tipped

markers, a pencil, old magazines for cutting pictures, finding fonts etcetera, the client's logo in different sizes, glue, scissors, a ruler, eraser, and colour pencils, upon arrival.

Figure 13: Toolkit given to participants.

Although Owen (1992:14) maintains that anybody can conduct OST workshops if they adhere to the guidelines, both Ms Crawley and the designer felt that employing a trained OST facilitator[32] would be preferable, as neither of them had any previous experience in OST. Employing a facilitator allowed the designer to fulfil dual roles as both participant and observer – a common, even recommended occurrence in participatory action research (O'Brien 1998:[sp]).

4.2.4.2 Theme of the workshop

The theme of the workshops, as explained to participants in the invitation and on the day by the facilitator, was to explore their views on how the product packaging could be improved through design to truly fit their needs and expectations.

4.2.4.3 Workshop design (Open Space Technology)

Owen's (1992:68-74) four basic principles and one law govern Open Space Technology. This is briefly introduced in the next section, and is followed by a report on the outcomes as applied in the actual workshops:

[32] Dr L Joubert, Industrial Sociologist, Specialist in Human Resource Management, Corporate Social Investment and Local Economic Development and trained in Open Space Technology, facilitated the workshops.

Whoever comes are the right people. This principle reminds people that the number of people or even who comes (in terms of status), is not important, but rather the quality of interaction and conversation.

All eight of Body Inc.'s consultants in Gauteng and the North West Province were invited. *Customers* were randomly selected by inviting every third name (in alphabetical order) from Body Inc's existing customer database of these regions. The aim was to attract between ten and twenty participants per workshop, excluding the designer and Ms Crawley.

Whatever happens is the only thing that could have. This principle is a reminder that real progress and learning can only take place when all participants move beyond their own agendas. What makes OST so effective in situations where diverse people must deal with complex and potentially conflicting material, is its inherent democracy. Participants get to set and agree on their own agendas and work processes. Owen (1992:70) strongly discourages the presence of any agenda or guidelines at the start of workshops, as these limit discussions and hamper the discovery of participants' true problems and solutions.

Whenever it starts is the right time. This principle is to remind participants of the nature of creativity – it appears in its own time, which by definition is the right time. So, if a group gathers at 9:00 it does not necessarily mean that anything useful will occur at 9:00 – it might take an hour or two of discussion and trial and error before common ideas, answers and solutions start to emerge.

When it is over, it is over. This principle is to save time and aggravation in the sense that if a group completes its task within an hour, they may regard it as completed. There is no need to drag out the process to make up time.

The law of the two feet. This law says that if, during the course of the action, any participant in a group finds him or herself in a situation where they feel they are not contributing or learning, they may leave and seek a group which they find more productive. This law prevents egotists from taking over and forcing their opinions on a group, as the other participants are free to leave and start their own group. It also creates opportunity for cross-pollination of ideas, as a participant may take on the role of 'butterfly', drifting between various groups during the course of a workshop, contributing to all groups.

4.2.4.4 Application of Open Space Technology – description of workshops

On the morning of each workshop, the designer and Ms Crawley arrived early to welcome participants, collect their signed consent forms, hand out toolkits and generally put them at ease. Participants were invited to enjoy tea or coffee and light refreshments while they waited for the workshop to commence. The designer checked all consent forms for participants who wished to remain anonymous. All the participants in both workshops agreed to be recorded on video and camera and for their names to be made public in the study.

Whoever comes are the right people – selection of participants.

Workshop one consisted of fourteen participants – four consultants, the owner and nine customers. Workshop two had nine participants – the owner, two consultants and six customers. Although some male customers were invited, all declined citing work commitments as the reason.

Whatever happens is the only thing that could have: procedure followed

Workshops commenced with a 'morning announcement' by the facilitator to explain that no agenda or aims existed – these were to be defined by participants themselves – and to make the basic principles and rules of OST clear. The ethical principles of PAR were explained to participants:

- all ideas were considered equally important and valid,
- all participants were on equal footing,
- any participant was free to withdraw at any time and
- decisions were to be made collectively.

Subsequently, the designer explained that the theme of the workshop was to explore participants' views on how the product packaging could be improved through design to truly fit their needs and expectations. The theme was not limited to exploring participants' views on product labels, but was left open to include all aspects of packaging on purpose, because user interaction with packaging includes more than mere visual appearance. Tactile sensation, ease of handling and practicality of packaging all add to the user's experience of a product. Participants were invited to give free rein to the imagination and to not limit themselves to what they thought possible or regarded as cost-effective.

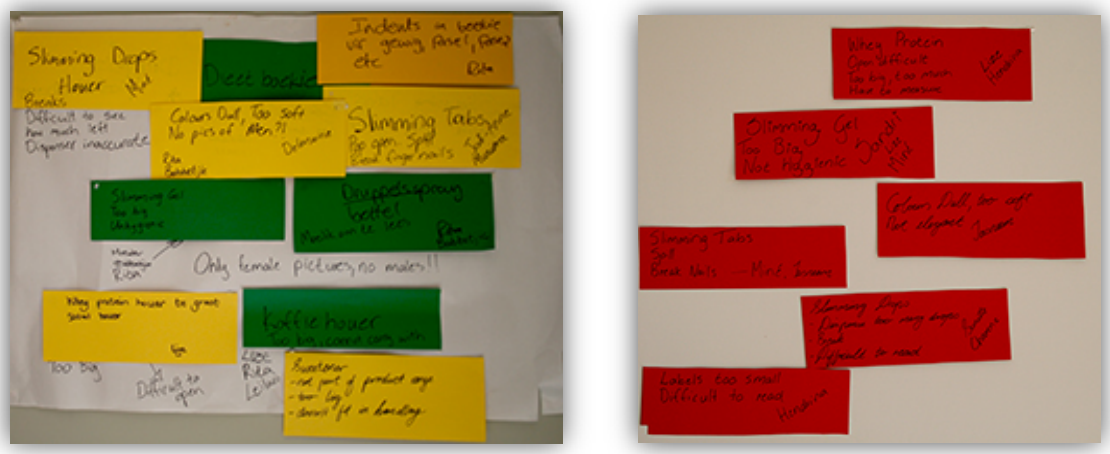

Figure 14: Issues posted on the bulletin board, workshop one on the left and workshop two on the right.

Usually OST workshops span one to three days (Owen 1992:29-32), with consecutive discussion sessions. Knowing her customers and consultants, Ms Crawley feared that they would be unavailable for so long. Consequently, multiple discussion sessions were held simultaneously to fit the workshops into six-hour sessions. The drawback was that participants were unable to contribute to more than one session. However, they were free to leave a session at any time and join another group (see the law of the two feet).

After the 'morning announcement' session, the facilitator invited participants to announce their issues / problems with the existing packaging. Issues were written on cards with participants' names on and posted on a bulletin board. When all issues had been posted, the facilitator pointed out that due to time constraints and overlapping issues, participants might need to consider grouping issues together in some way. Participants decided to group products together where the same issue pertained to more than one product. For example, they found the size of both the whey protein and the slimming gel containers too big, so these products were grouped together for one discussion. Then participants selected the discussions they wanted to participate in by posting their names under the relevant discussion on the board. Next, participants proceeded to form groups and move to various work areas.

Participants then moved to work areas of their choice where issues related to their chosen products were discussed and ideas for alternative solutions were brainstormed. Work areas were equipped with large white flip charts in addition to the toolkits being handed out. Brainstorming was done on the flip charts. In several instances, more issues emerged

during these discussions, and ideas voiced triggered other ideas, which gradually merged into possible design solutions.

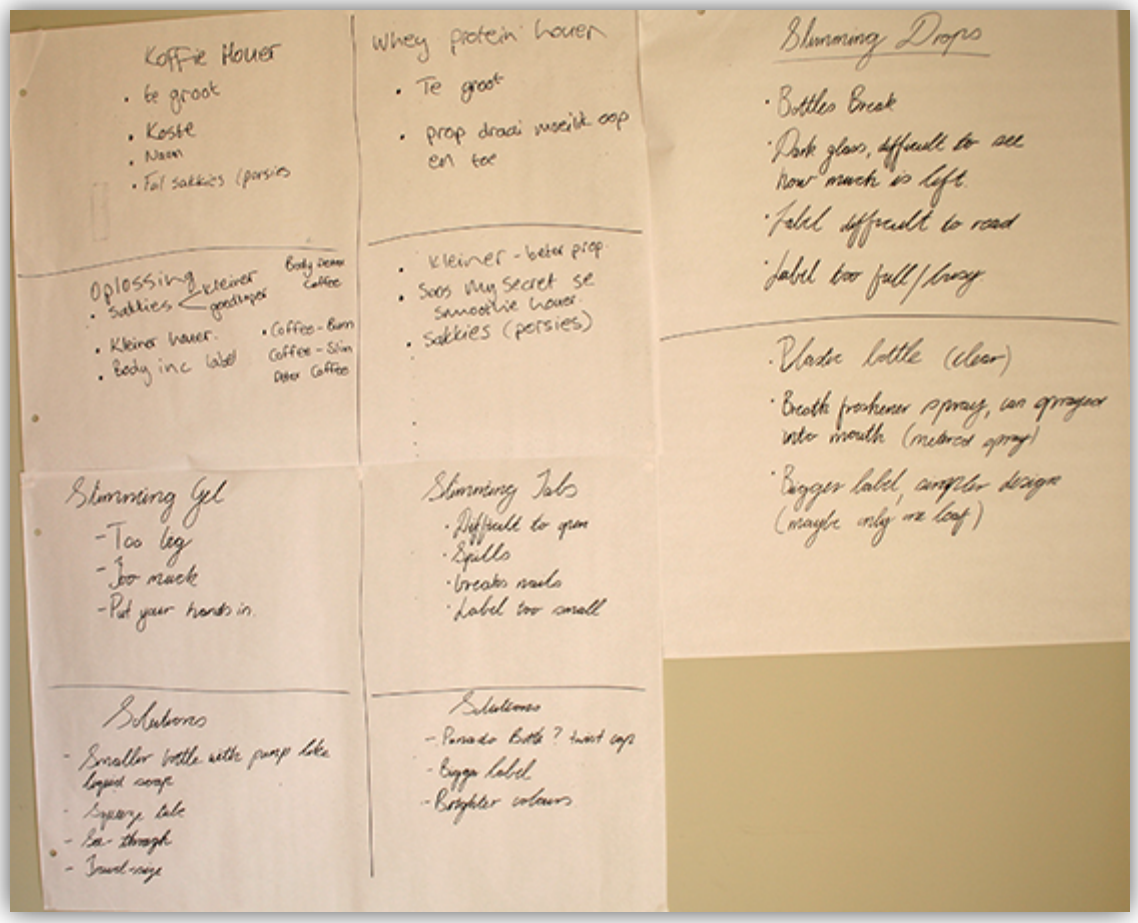

Figure 15: Flip charts with various ideas produced during brainstorming sessions.

Once possible solutions began to emerge, groups began to create their own designs by drawing containers and cutting, pasting and colouring their own labels. Where their drawing skills failed them, they added captions with verbal descriptions.

Ms Crawley opted to join a specific discussion group and participated in one particular discussion. The designer opted for the role of 'butterfly' (Owen 1992:73), moving between groups, listening to, observing and participating in discussions, asking questions and cross-pollinating ideas between groups as they occurred to her. In OST the facilitator assumes a passive role during group discussions – in fact, Owen (1992:48-52) suggests that the facilitator should only be present at the community board to answer any questions regarding the process or ethical principles. As both Ms Crawley and the designer

participated in discussions, the facilitator was asked to move between groups and photograph participants at work.

Forty-five minutes before workshops were due to end participants were called to what Owen (1992:53) terms ‘evening news’ sessions. In OST, the ‘evening news’ session serves as a forum for discussion groups to give public feedback on their discussion to all other participants, and for other participants to ask questions or comment. Participants again gathered in a circle at the bulletin board and groups took turns to visually present their ideas and the outcomes of their discussions. After each presentation, the floor was opened for questions, comments and further discussion. Generally, very few questions were raised and when the facilitator asked, participants expressed their satisfaction with the outcomes presented. According to Owen (1992:104-106) this is a common occurrence, because groups consist of those participants who feel strongly about the specific problem and who are consequently most likely to solve it.

Whenever it starts is the right time.

After groups were formed, they were free to choose their own work areas and to start their discussions at their leisure. Tea, coffee and refreshments were available on a continuous basis and participants were free to schedule their breaks and work time as they deemed fit.

When it is over, it is over.

Participants were not expected to drag out discussion sessions unnecessarily. Some groups completed their presentations well before the evening news session was to start. These participants were then free to move to and participate in / observe other groups, or to take a break. Similarly, groups that did not have a complete presentation ready by ‘evening news’ were free to present the ideas and outcomes they did produce. These outcomes were considered equally valuable and valid.

Workshops concluded with Ms Crawley and the designer thanking participants for their input and wishing them a safe journey home.

4.2.5. Phase four: Analysis and interpretation of workshop outcomes

When participants split into discussion groups, they were asked to leave all rough drafts, flip chart pages and notes generated during group discussions in individual piles at the end of the session. The design outcomes presented at ‘evening news’ were added to this.

Because neither the designer, nor Ms Crawley could be present in all discussion groups all the time, this collected material and photographs served as a record of workshop outcomes and, together with the designer's personal notes and observations, were crucial source material in the next phase, where it was analysed and interpreted to inform a third or final brief.

Similar issues were identified in both workshops and revolved primarily around the visual appearance of packaging, size and portability of containers and practicality and usability.

4.2.5.1 Visual appearance

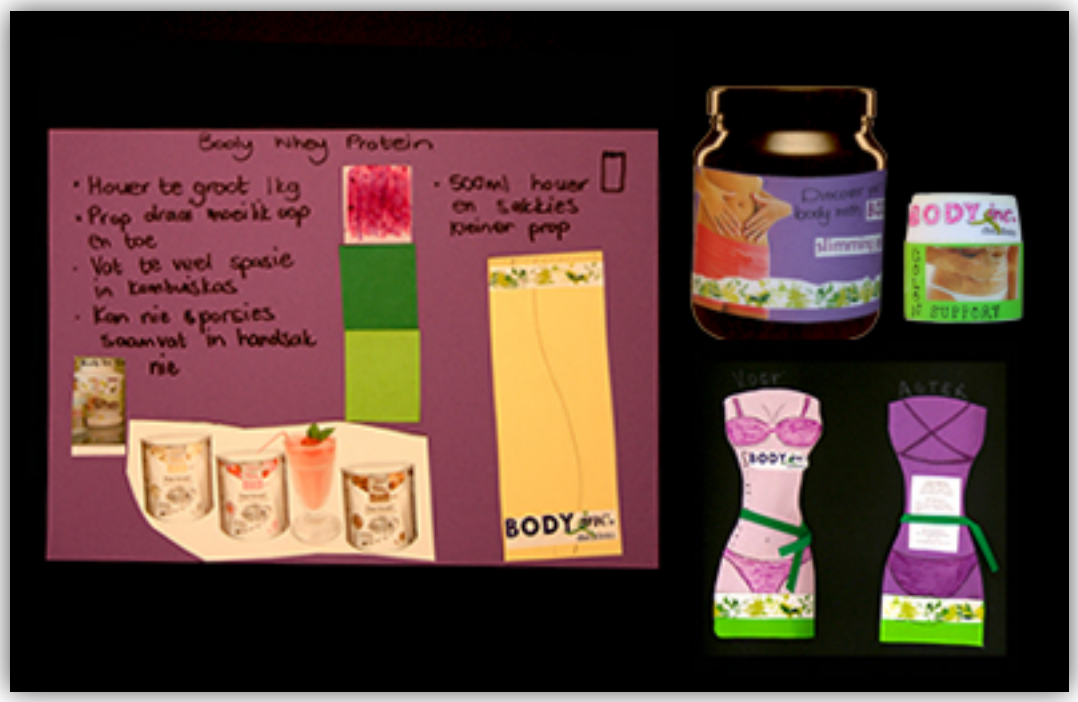

Figure 16: Some designs favoured the use of brighter, bolder colours and darker or brighter backgrounds.

The general consensus was that although most products were clearly identifiable as belonging to the same brand, visual appearance was too feminine and appeared outdated. The liquid sweetener had a different logo – a previous attempt by Body Inc to differentiate between food products and supplements. Participants singled this label out and criticised it for appearing to not belong to the Body Inc brand. A preference for current industry trends towards black rather than white packaging with a bold use of colour was expressed, and two discussion groups in workshop one, and one group from workshop two proposed that the existing brand-specific purple and green be changed to brighter, stronger hues of the same. Participants from two groups in workshop two wanted to include male and female

images in their own designs. However, their final presentations did not reflect this. Their explanation was that they were unable to find suitable pictures in the magazines provided. Although the leaf motif on existing packaging generally proved to be popular, some participants did say that they found it too busy and suggested it be replaced by a single leaf.

Three older participants from workshop two expressed their concern about the size and readability of text on smaller product labels, such as those on the 30 ml slimming drops and the slimming tablets.

4.2.5.2 Size and portability of packaging

A prominent requirement that emerged was customers' need for small handbag-sized packaging, which can be carried with them, reducing the need and / or temptation to cheat on their diets.

The slimming gel container was found to be clumsy and big to travel with and containing too much product, making it pricey. Generally, a third of the current product volume per package was considered to be adequate. A suggestion for a range of travel-size products was also made.

Figure 17: Existing slimming gel container

Figure 18: Participants' varied designs for a new gel container.

Whey protein, a white powdery substance which must be mixed with water or milk, is packaged in huge, white 2 kg plastic containers with a round screw-top lid, 16 cm in diameter. Difficulty in opening the large lid and too much product per container were participants' main problems. The container was said to be impractical to store, totally impossible to travel with and difficult to measure product from. One participant suggested measuring portions and putting them in zip-lock banking sachets. This prompted a design for a box with pre-measured portion-sized sachets of product, containing enough sachets for thirty meal replacements or supplements – a month's supply. (Subsequently, a similar solution was suggested for the metabolism-boosting coffee product.)

Figure 19: Existing whey protein container on the left and participants' designs for a new container on the right.

The relatively large bottle of sweetening liquid, available in one size only, is a major source of frustration for participants who need to be able to put it in a handbag. A solution similar to the slimming drops solution, but with a clearly discernible label, was suggested.

Figure 20: Existing sweetener container on the left and participants' designs for a new container on the right.

4.2.5.3 Practicality and usability

Appetite suppressants in the form of slimming tablets are included with the basic slimming programme. Many customers buy them after their initial stock has been depleted. Tablets are packaged by the client in small flip-top, semi-transparent pill bottles that were found to be difficult to open when they are new. After repeated use however, they tend to open by themselves, typically spilling content. Several solutions were explored until a participant noted that the tablets were similar to artificial sweetener tablets in size. Consequently, a design using a sweetener dispenser was created for the slimming tablets.

Figure 20: Existing tablet container on the left and participants' designs for new containers on the right.

Included in the initial start-up kit is a homeopathic metabolism-boosting liquid, available in 30 and 50 ml brown glass bottles with screw-top lids and built-in drop dispensers. These dispensers were found to be inaccurate and difficult to use. Gauging the amount of product left was said to be difficult because of the bottle's dark colour. Breakages had been experienced in the past when bottles were accidentally dropped. A solution involving an existing transparent plastic bottle with a nozzle at the top was suggested, with a bigger label which can be folded open.

Figure 21: Existing slimming drops container on the left and participants' designs for a new container on the right.

Scooping product from the slimming gel pot by hand was considered unhygienic by discussion groups from both workshops. Suggestions for the product, which is a visually appealing transparent green gel, included a transparent curvy-shaped squeeze tube and a transparent pump-action bottle, see Figure 17 above.

4.2.5.4 Other marketing items

Issues raised in the introductory sessions were not limited to product packaging, but included comments on the website, product information booklets and other marketing collateral. Due to limited time available, Body Inc and The Image Foundry agreed not to pursue issues unrelated to packaging in these workshops, but they realise that longer workshops with a wider theme could be useful.

Issues regarding four products, namely the slimming gel, whey protein, slimming tablets and slimming drops were raised in both workshops, while workshop two also pointed out problems with the sweetener and the metabolism-boosting coffee. Participants were more concerned with and spent more time discussing practical usability of the existing packaging than visual appearance, which The Image Foundry took as an indication that the design problem required a wider focus than merely the visual appearance of product labels.

The complete absence of some products from discussions also raised new questions for further investigation. Participants were, for example, not interested in discussing products such as the Thyrostim and Colon support tablets, identified as poor sales performers in the client interview.

Workshops were useful in highlighting frustrations with existing products and needs and expectations, which neither the client nor the designer had been aware of. Participants' solutions from workshops were not necessarily practical, but provided the designer with a wealth of ideas and options for further exploration, enabling her to propose a creative strategy that addresses much more than visual appearance. Analysis and interpretation of workshop outcomes impacted significantly on the content in the ensuing brief / creative proposal[33] which became far richer, with a significantly expansion in project scope and creative strategy.

[33] The complete brief / creative proposal as submitted to the client is available in Appendix F.

4.3 Summary

This chapter documents the author's own practical exploration of stakeholder participation during the information gathering phase of the design process for a range of packaging for a SMME client. It commences with a description of the stakeholders involved, followed by a description of a semi-structured client-designer interview, which is the designer's standard information gathering procedure at the start of any design project. Information gathered in this interview is discussed briefly and the resulting design brief written by the designer based on analysis and interpretation of the information, is summarised. Subsequently, the focus shifts to participatory workshops where stakeholders were given toolkits and asked to identify issues, concerns and unmet expectations in existing packaging and to develop their own solutions to these problems. The process, workshop design and application are described. The chapter concludes with a discussion of information and discoveries from the workshops and the designer's analysis and interpretation of these discoveries. Interview information and workshop discoveries were collated, analysed and interpreted by the designer to create a rich picture from which a design brief / creative proposal was developed, which is available in Appendix F. Chapter five discusses the impact of workshop outcomes on the final brief / creative proposal.

CHAPTER 5: IMPACT OF PRACTICAL EXPLORATION ON BRIEF DEVELOPMENT AND CRITICAL REFLECTION ON OUTCOMES

This chapter highlights changes and additions – based on discoveries and information from workshop outcomes – and examines the development of the brief from the client's initial email instruction, to the designer's final brief / proposal. Subsequently, the designer's critical reflection on the process and outcomes is discussed. The chapter concludes with a reflection on caveats, lessons learnt and the relevance of this study to other design projects.

Over the years of its existence, The Image Foundry has encountered very few briefs that offer insight into the culture, way of life and communities of the targeted users, hampering the designer's ability to understand and consider potential interaction and the impact of possible design outcomes. The practical exploration described in chapter four not only afforded it the opportunity to study user participation as a means to gather information about user's needs and expectations, but also to study the impact of this additional information on brief development.

In this chapter, information obtained from a pre-brief instruction from a client, a client-designer interview and a combination of client-designer interview and stakeholder participation are compared and the impact of each on brief development is tabled. The benefits of stakeholder participation in this specific project are discussed from both the client and designer's perspectives. Outcomes from the previous chapter are presented as clinical, project-specific research for design.

5.1 Highlights from final brief / creative proposal

An analysis of customer / user concerns and expectations that emerged from the participatory workshops, paired with her own design-specific knowledge based on experience, enabled the designer to offer a far richer, creative proposal than the first one where only information from the client-designer interview was used. Participants' solutions from workshops were in themselves not necessarily practical, but provided the designer with a wealth of ideas and options for further exploration, enabling her to propose a creative strategy that addresses much more than visual appearance. The following section discusses specific areas of impact.

5.1.1 Visual appearance

In the client-designer interview, Ms Crawley pointed out that informal feedback from consultants and customers had prompted her to consider changes to the visual

appearance of the Body Inc labels. She suggested brighter, bolder colours and a black background on the labels. She also indicated that certain elements, such as its corporate colours, a distinctive leaf motif previously used on all designs, the logo and photographs of lean, fit models were to be retained as informal feedback indicated that these had worked well in the past.[34]

Feedback from users and designs by participants confirmed a preference for a use of vibrant colours on black, and a simple, stylised use of visual elements. Interestingly, participants were quite vocal about their preference for both males and females in photographs. However, their designs were void of any male images. This may be attributed to the absence of male images in the toolkit magazines that they used to compile their suggestions with.

Based on the available information and her knowledge about design elements such as line, shape and colour, the designer suggested more saturated, intense hues of the existing corporate colours on a dark background, such as black. To complement the colour scheme and achieve a more elegant appearance, she suggested the prominent use of high contrast black and white photographs of both sexes against a simple black or white backdrop. To declutter small labels and enhance a modern, elegant appearance, she proposed replacing the existing leaf motif with a stylised twig running from top to bottom.

5.1.2 Size and readability of labels

As mentioned in section 4.2.4 of the previous chapter, some participants expressed concern about the size and readability of text on small product labels. To allow optimal space on small product labels, the designer proposed a long fold-out label with a perforated edge. Based on her knowledge of printing processes she was aware that white text reversed out of a dark background had limitations in terms of size. Very small reversed out text can become illegible. To ensure readability of product information, dosage and instructions, she recommended black text with a large x-height overprinted on a solid lime green background in the fold-out section of labels.

5.1.3 Usability and value

Although Ms Crawley's initial instructions concerned product labels only, the issues raised by workshop participants indicated that they were generally more concerned with the

[34] As discussed during the client-designer interview, presented in the transcript in appendix C

practicality of the existing containers than with the visual appearance of labels. Volume per package, portability of packaging and ease of use were the three main concerns.

Existing sales volumes of products did not warrant the cost of developing uniquely sized containers, so Body Inc. appeared to be restricted to standard packaging from large suppliers. Workshop solutions therefore initially appeared unrealistic. However, in the client-designer interview, Ms Crawley indicated that they were already buying some products in bulk and repackaging them to suit customer needs.

The Image Foundry found that exploring ways to develop and execute some of the workshop solutions presented opportunities to significantly increase the client's value offering. Consequently, The Image Foundry used its existing network of packaging manufacturers and suppliers to source other container options and investigate the logistics involved in repackaging products. This search yielded several viable alternatives to the existing containers. The wide variety of plastic containers in different shapes and sizes suggested that sourcing appropriate containers, repackaging products and branding them with a printed stick-on label would be possible for several products.

For example, The Image Foundry suggested that clear plastic pump action bottles with a screw top, available in 50 ml, 100 ml, and 375 ml sizes might address both the hygiene and volume concerns raised about the slimming gel. In its final proposal, The Image Foundry pointed out that a standard size bottle could contain 375 ml, but that Body Inc. could benefit from developing and producing a travel-sized option, which will enable a higher profit margin as the price per millilitre of product could be increased, while keeping the price per bottle attractive enough for customers. Additionally, a smaller bottle could afford potential customers the opportunity to first purchase a test sample. These sample sizes could also be used as appealing welcome gifts to new customers during a promotional campaign.

Based on participants' solution in workshop two, The Image Foundry proposed a dispenser, similar in size to that used for artificial sweeteners, as a more suitable container for the slimming tablets. These are available at a fairly low cost in a variety of colours. As the tablets are sold in a sealed bottle, repackaging them is not viable, but The Image Foundry suggested the sale of empty dispensers as an additional convenience, or handing them out as a free gift with a customer's first purchase of slimming tablets, enhancing customers' perception of value for money.

Bulk volume and high cost per container were the major concerns raised regarding the whey protein, coffee and liquid sweetener products. Suggestions were made for serving-sized sachets in a flip-top box. Further investigation by The Image Foundry yielded a supplier of small, Tetrafoil sachets who offers personalised branding and packaging services, employing people from disadvantaged communities. All three of the above products lend themselves to this form of packaging. As the client's volumes are relatively small, the supplier had indicated that it would be able to assist. The final proposal warned that packaging costs may increase, but also pointed out that these could be priced lower, enabling more frequent purchases and, subsequently, increased customer satisfaction and sales. In addition, these solutions could also be employed to add value to existing products, enabling a higher income per unit.

All of the above suggestions will require further investigation, but initial exploration suggests that they may offer viable solutions to customers' concerns as expressed in the creative workshops.

5.2 Impact of stakeholder participation on information and brief development

According to Phillips (2012:[sp]), the contents of a good design brief should provide information that covers six basic areas, namely: background information about the type of business, its business objectives for the specific project, products affected by the project and how these fit in with the overall business strategy, target audiences, competitors, practical considerations, such as logistics and legislation, timeframe and budget. The outcomes of this study suggests that a combination of client-designer collaboration in brief development and stakeholder participation in the information gathering phase of the design process, yields more information than mere client-designer collaboration. It provides the designer with a rich picture to draw on when developing a creative strategy. Table 2 below compares the information provided in a client brief with information from a client-designer interview, and information from participatory workshops against Philips' (2012:[sp]) list of contents for a good design brief.

Information	Client instruction	Brief based on interview	Brief based on interview + workshops
Project overview	Limited to *what* the client wanted done	Motivation became clear Project scope emerged	Motivation and need for the project were affirmed Expansion of project scope to include type of packaging rather than only visual appearance of packaging as was previously thought
Category or industry overview	No information supplied	Expansion into new industries • Some intentional as part of the clients business strategy • Others co-incidental, due to unexpected interest from consumers • Was identified as areas requiring further research	Workshops offered no additional information regarding category or industry
Company portfolio	Addition of convenience foods	Provided reasons for expanding portfolio into convenience foods Strong and weak performers in the existing portfolio were identified Possible reasons for performance were guessed at Was identified as an area requiring more research	Expansion of some existing product ranges might be in order A need for smaller travel-size alternatives to the existing sweetener liquid slimming gel emerged
Industry trends	Only stated desired visual outcomes in vague terms	Colour trends in industry were identified Trends cited as motivation for desired visual changes	Visual appearance of stakeholders' workshop designs reflected and confirmed client's desired appearance as stated in initial brief Surprisingly, some additional changes were proposed, such as images including both males and females
Competitors	No information was given	Direct and indirect competitors in the primary industry were identified	Competitors in secondary industries affecting single products such as the sweetener, whey protein and slimming gel emerged in group discussions

Information	Client instruction	Brief based on interview	Brief based on interview + workshops
Branding strategy	No information was given	Existing strategy was reviewed Possible change in strategy to accommodate portfolio expansion was discussed	Participants criticised deviation from monolithic brand on sweetener label Branding strategy identified as area requiring further research
Business strategy	No information provided	Discussed and confirmed strategy	No additional information
Target audience review	No information provided	Demographic and socio-graphic profiles based on customer database	Rich information in terms of user wants, needs and expectations Participants were more concerned with usability of packaging than current visual appearance Participants' representations of desired solutions provided inspiration and rich material for idea-generation Identified areas where value of product offering could be enhanced through simple changes or additions
Business objectives	None	Objectives identified and discussed	None
Creative strategy	Developing any kind of creative strategy based on the client's initial brief would have been near impossible. The designer was only able to make suggestions regarding visual appearance based on aesthetic enhancement	Designer was able to draft a proposal addressing changes to visual appearance and branding strategy based on existing portfolio, competitor review, industry trends, target audience review and business objectives	Combining concerns that emerged from workshops with information supplied by the client led to a comprehensive proposal addressing a wide range of issues including changes to: • Project scope • Visual appearance • Type of packaging • Product ranges in company portfolio • Branding strategy

Information	Client instruction	Brief based on interview	Brief based on interview + workshops
Practical concerns	None were given Designer was aware of existing practical limitations due to pre-existing client-designer relationship	Practical limitations with regards to suppliers and type of packaging available Limitations in terms of cost of sales Legal requirements on labelling	Limitations identified in client interview rendered some proposed solutions from workshops impractical Solutions from workshops offered ideas for exploration to overcome limitations imposed by suppliers and cost of sales
Timeline and budget	Deadline was given for completion of project No indication of budget Designer had difficulty providing a cost estimate as project scope and responsibilities were unclear	Project scope made the identification of project nodes with timelines possible Allocation of responsibilities Client was still unwilling to disclose budget Designer was able to give cost estimate based on project scope and responsibilities	As project scope expanded, timelines were expanded and project nodes added and prioritised Cost estimate increased, but workshop outcomes suggest that increased cost could be offset by value increase of product offering and potential increase in sales Client and designer agreed that potential return on investment will be re-evaluated after testing of prototypes and again after six months' sales

Table 2: Comparison of information provided in a client brief with information from a client-designer interview and information from participatory workshops.

5.3 Critical reflection

The introduction to this study mentions the challenges faced by the design profession to create engaging, meaningful design outcomes that are valued for their positive impact rather than mere consumption driven desire fulfilment. If humanity wants to create a more sustainable world, designers need to strive towards design outcomes that enrich people's lives and enable them to create their own solutions for their specific problems. Prominent design authors, such as Professor Richard Buchanan (2001:16) and Jorge Frascara (2001:[sp]) emphasise designers' responsibility to create economic, social and aesthetic value.

Delivering on these responsibilities requires the designer to have a clear understanding of the design problem and of user needs and expectations. In addition to these challenges, designers have a responsibility to serve their clients' business interests by acquiring a solid understanding of the client's business problem (Sethia 2005:45; Phillips 2012:[sp]) and managing the design process from start to finish (Bruce et al 1999:315).

Access to information that is pertinent to the business problem may however depend largely on the client's position on the design ladder as discussed in chapter two (Paton & Dorst. 2011:573; Phillips 2012:[sp]). The main stumbling blocks for designers to serving business needs appear to be a lack of information due to limited research and development resources or expertise, and a lack of understanding and knowledge of design by the client. From several articles by authors such as Bruce et al and Sally Brazier, these stumbling blocks appear to be especially prevalent among SMME clients (Bruce et al 1999: 315; Bruce et al 1995:416; Brazier 2004:69).

Outcomes from this real-life study reflect existing theory as presented in design literature discussed in chapters one, two and three. At the outset of the design project, Body Inc's approach to design was situated firmly on the second tier of the design ladder. The initial brief or instruction was tight, with very specific indications of what the client wanted in terms of visual treatment. The Image Foundry was employed at the end of a product development cycle as technicians to add aesthetic enhancement through the redesign of labels on existing packaging. Body Inc did however show some concern for user expectations in its consideration of informal user feedback in the initial instructions to The Image Foundry.

Design outcomes based only on Body Inc's initial instruction would have limited The Image Foundry's design activities to first and second order design activities, focusing only on the product labels, their visual appearance, material and manner of production.

The designer as senior designer and owner / manager of a small business fitted the description by Dorst (2008:10) of an *expert designer*. She has learned through extensive past experience that most design projects require a wider focus, including context and stakeholders, as well as the content and appearance of the object. At the outset of this study she had already regularly engaged in third order design activities, recognising design as a problem-solving process, seeking to identify opportunities and / or problems inherent in the situation before taking action to design solutions.

As the owner of The Image Foundry, past experience has taught her that in real life, design clients' instructions may only require design to add aesthetic enhancement to products at the end of development, but clients often have a vague and unexpressed expectation of the design outcome to address a business problem. A gap often exists between the client's initial brief / instruction and the brief required by the designer in order to address the client's business problem. Existing literature about design management

ascribes this gap to design clients' lack of understanding and knowledge of design (Bruce, et al 1995:416; Brazier 2004:69; Iduarte & Zarza 2010:21). In cases involving SMME design clients, such as the one studied here, the gap is aggravated by a lack of research knowledge, experience and resources.

To address this gap, The Image Foundry had previously developed a standard set of simple questions touching on wider design issues than just the initial issue presented by the client as part of its standard procedure during the brief development phase of all design projects. In this specific case, the client-designer interview was especially useful for framing the design problem in a context that both Body Inc and The Image Foundry understood. Business objectives and project limitations were identified, which were valuable to the designer for negotiating the project scope, timeline and budget. Drawing on her knowledge from previous projects for the client, as well as her experience as designer, she was able to analyse and combine existing knowledge with new information from the interview. Consequently, she proposed to expand the project focus from the object, namely packaging labels, to a more strategic focus that included product portfolio and brand strategy, thereby engaging in third order design activities. By expanding the project scope to a strategic level in her proposal, she was able to demonstrate to the design client how design can support their business.

Although the client-designer interview was highly useful in the aspects discussed above, it yielded only general information about the intended target audiences. Furthermore, what information Body Inc. had available about user needs and expectations was based on informal feedback and / or speculation and gut instinct from the client, rather than solid research.

From previous experience with SMME clients and informal discussions with other design consultancies, the designer suspects that basing business decisions on instinct or gut-feel is not an uncommon occurrence among SMMEs. Although this observation poses an interesting question for future research, her personal perception, based partly on experience and partly on existing literature, is that this occurrence might be ascribed to two factors: Firstly, SMME clients rarely have the resources, knowledge and / or experience to conduct research. Because they are small businesses, these clients often have personal interaction with their customers, enabling them to gather information based on informal feedback and personal observation as was evident from the client-designer interview in this study. Secondly, SMMEs are unusually vulnerable to changes in the market, requiring them to respond faster than larger organisations, leaving limited time for

doing research and resulting in a tendency to learn while they do (Brazier 2004:69). In such circumstances research may be critical to confirming and explaining the design client's gut instinct or proving it wrong before developing inappropriate design outcomes that are a waste of resources and may have a negative impact.

In this study, participatory action research as a collaborative, democratic and empowering effort by all stakeholders (O'Brien 1998:[sp]) appeared to offer an ideal approach: The process allowed for quick results, and research costs were relatively low as research is not done by outside researchers, but rather by participants who participate explicitly in all processes in order to test or shed light upon something by accessing and combining their tacit knowledge with formal theory – in this case the requirements for brief development as set out in Phillips' (2012) book.

The collaborative, user-based approach employed for this study assisted the designer to identify the needs and expectations of users on a personal level, enabling her to reframe the design problem in a way that evoked completely different potential outcomes to what the client's initial instruction demanded. Stakeholder participation provided direct feedback from consultants *and* customers / users, confirming some of Ms Crawley's initial instincts, but also indicating that the design problem was in fact far wider than either Body Inc or The Image Foundry had previously realised. An analysis of available information based on the client interview and the workshops helped the designer and Ms Crawley to establish common ground from which to tackle the problem. The result was the development of an extensive and comprehensive design brief / creative proposal, addressing not only the visual appearance of product labels, but far more strategic business issues such as product portfolio, value offering and brand strategy.

According to Buchanan's design matrix, fourth order design activities focus wider than stakeholders and context, considering also the interaction between the design outcome, user and the social, cultural, natural and economic environment (Buchanan 2001:15). This approach strives to deliver design outcomes that are valued for their positive impact, enriching people's lives and enabling them to create their own solutions for their specific problems (Buchanan 2001:16; Morelli 2007:5-6).

Both The Image Foundry and Body Inc benefited from the user-based approach followed in this study in several ways. Firstly, the wealth of information enabled the designer to consider users' frustrations in their interaction with products in their current form and significantly enriched concept development. A combination and analysis of workshop

outcomes, information from the interview and the designer's own knowledge and experience led to the identification of areas where product offerings could be expanded and product value could be enhanced through small design changes.

Stakeholder participation during workshops afforded users the opportunity to voice their frustrations with products in their current form, and to explore their own ideas for solutions to these frustrations. New product research and development was driven by design, based on ideas generated by participants during workshops, which enabled the designer to demonstrate to the client the value of involving design early on in product development.

Although prototypes still have to be tested and product sales and customer feedback will eventually be the final measure of success, indications are that design outcomes based on the final brief / proposal will be successful in terms of increasing sales and customer satisfaction, differentiating from competitors and adding value to products – ultimately contributing to the company's competitive advantage in the market.

An expanded project scope and more responsibilities led to a higher income for the designer and clearly defined objectives, allocated responsibilities, a realistic timeline and budget, provided objective criteria for measuring the success of the design outcomes. Successful design outcomes will enhance the design client's satisfaction and could improve the designer's security in terms of repeat business.

Although the final design outcomes may only have limited social, cultural and environmental impact, the strategic approach contained in the final proposal, if implemented well, may have a positive economic impact on Body Inc's future business success and on the way it employs design in future. The project also impacted positively on the designer, opening up new possibilities for addressing similar design / brief development problems in future and for enabling her to demonstrate to clients the value design can add to business if used and managed correctly.

5.4 Conclusions

A participatory approach to information gathering during brief development can be more costly and can take more time than brief development without. Participatory workshops cannot replace a client-designer interview and can't adequately address questions regarding the company overview, industry overview, business strategy and objectives. Various factors, such as the client-designer relationship and the client's access to customers may influence the success or failure of participatory workshops, as will be discussed in chapter six. However, from the comparison of outcomes it is clear that in this

project, a participatory approach was highly valuable in supplementing information from the client-designer interview. Workshops offered valuable insights into the way customers use the products, what they expect from the products, what they need and what would make certain products more valuable to them.

Ideas generated in workshops offered new avenues for exploration and led to the development of prototypes for an expanded product range. This afforded the designer the opportunity to be involved with product development from the outset and demonstrated to the client that design has a valuable role beyond aesthetic enhancement in product development.

Chapter six evaluates the participatory research approach that was followed in chapter four against the action research criteria of Davison et al (Cole et al. 2005:8-11) discussed in 3.3.3, followed by a critical reflection on the successes, shortcomings and lessons learnt from this research process, attempting to find general guidelines for applying this approach to other design projects in future.

CHAPTER SIX: CRITICAL REFLECTION ON RESEARCH PROCESS

This study explored user participation in the early information gathering and ideation phases of the design process as a means to address inadequate briefing as a result of limited resources, understanding and / or knowledge on the client's side, in the context of SMMEs. The study started with a literature review, where literature concerning SMMEs' use and management of design was reviewed to develop a general idea about it. Based on the literature review, selected theories and ideas were further investigated, showing that, based on its experience with and understanding of design, organisational use of design can vary from simple aesthetic enhancement, to a strategic resource. Literature also revealed that SMMEs are often under-resourced in terms of design and therefore fail to benefit from the competitive advantages that stand to be achieved from its strategic use.

To comprehend the role that research for design plays in day-to-day studio projects, literature about design as a process was reviewed, showing that design consists of a series of iterative phases, each requiring specific activities. The initial phases involve a search for information on three levels, namely: to gain a better understanding of the problem, to identify possible solutions and for inspiration. Subsequently, literature about research during brief development in the early phases of the design process was further examined based on Buchanan's design matrix (1998:13) and the designer's responsibility to consider user needs and expectations when creating design outcomes.

Literature concerning the development of participatory approaches to design in general and pertaining specifically to action research, its principles and criteria for evaluation were examined to develop an understanding of its application and its relevance in research for design.

Subsequently, clinical research in the form of a first hand, real-life design project, exploring and documenting stakeholder participation during brief development for a specific project for a SMME client, was conducted. The type of information available in a pre-brief instruction from the client, information obtained in a client-designer interview and finally information obtained through stakeholder participation were sought, evaluated and compared. The impact of a combination of all three on brief development for the project was assessed and, in this particular case, stakeholder participation proved to be extremely valuable. User needs, wants and expectations were illuminated and innovative new ideas emerged. Further exploration of these ideas by the designer led to an expanded project scope and initiated new product research and development, which may affect the

company portfolio and brand strategy and may impact positively on the client's competitiveness in the market.

This chapter evaluates the research process followed in chapter four and reflects on it. As a design practitioner with a real-life design problem that needed to be solved, participatory action research (PAR) presented a suitable research method as it not only directly intervenes in a real-life situation, but also fulfils scholarly requirements of rigour. Because the action research process closely resembles the design process as discussed in chapter three, combining the two presented no problems.

The criteria of Davison et al (2004), for conducting and evaluating action research as discussed in chapter three, is used as a methodological guide to evaluate this case-of-one study in terms of the general requirements of any research – that it must be reliable and valid. The presence of the researcher as active participant is also justified and discussed in the context of the principles of action research.

This is followed by a critical reflection on the implications of this study for design practitioners, SMMEs and design research.

6.1 Reliability and validity

In quantitative research, validity requires the researcher to be clear that event x did lead to event y to make inferences and replications of the study possible in new cases, and to make the findings of the study generalisable. Reliability is concerned with repeating the same study and arriving at the same findings (Golafshani 2003:601; Svengren 1993:449). Qualitative research however, is the study of phenomena in context-specific settings with the aim to seek illumination or understanding of the phenomena and to extrapolate the phenomena to other, similar situations (Golafshani 2003:600). Conducting qualitative clinical research, especially in a case-of-one study, implies that each situation, as well as its role players, is unique, which makes inferences and replications a difficult task. The very purpose of action research is not to prove or disprove specific patterns, but to explore possible relations and to inspire the formulation of new theories or illustrate potential new models. Therefore, other criteria for determining validity and reliability need to be applied.

Archer (1995:1) identifies five basic criteria for validity, namely:

- Research should be systematic and methodical, conducted in a disciplined manner according to a plan.
- Research should be inquisitive, seeking to find answers to questions.

- Research should be goal-directed, based on the identification of an issue or problem worthy and capable of investigation.
- Research should be knowledge-driven and the findings of the inquiry must go beyond mere information.
- Research finding should be communicable and located within some framework of understanding for an appropriate audience and testable.

Svengren (1993:450) argues that the validity of action research may be evaluated against three criteria: consequence, awareness and the pragmatic. The consequence criterion means that the theoretical reasoning is consistent with the chosen frame of reference and with existing theories and other research findings. The researcher ensures distance and objectivity through a critical reflection on his / her own work. The awareness criterion requires that the researcher openly presents the entire process to enable the reader to judge the value and reasoning of the material. The pragmatic criterion determines whether the research findings are useful to the research client – in this study, the designer and the design client. According to these criteria the research method validates itself, as it is in itself a test of the model and ideas it is built upon (Svengren 1993:450).

The criteria developed by Davison et al (2004) as methodological guidelines for conducting and evaluating action research, as discussed in chapter three, comply with both Archer (1995:1) and Svengren's (1993:450) criteria for measuring validity. As such, the criteria of Davison et al (2004) are used in this study to demonstrate reliability and validity as discussed below:

6.1.1 Criterion one: The researcher-client agreement

A researcher-client agreement document is a commitment between the researcher and client on an action research approach and on the research focus, participant roles and values and behaviours, thereby fulfilling Archer's (1995:1) criterion that research should be goal-directed, based on the identification of an issue or problem worthy and capable of investigation. Data collection methods, project objectives and evaluation criteria are agreed upon beforehand, thereby ensuring that the study is conducted systematically and methodically in a disciplined manner and according to plan as required, according to Archer (1995:1). Furthermore, the researcher-client agreement guarantees transparency of the process, which in turn enables the researcher to openly present the entire process when communicating research findings, thereby complying with the awareness criterion as described by Svengren (1993:450).

In this project, the designer also assumed the role of researcher, henceforth referred to as the researcher. After an initial verbal discussion between the researcher and the client,

during which the researcher explained how AR works and what the expected benefits and drawbacks for the client entailed, it was agreed in principle that an AR approach would be followed. At the outset of the project, the client and researcher agreed that an action research approach involving specific stakeholders would be followed to identify and define the design problem, and to gather information about stakeholder needs and expectations in order to develop a comprehensive design brief. The client committed to the project by signing an official letter of consent, in which she agreed to an AR approach involving specified stakeholders.[35] They agreed to approach the brief development process as equal partners, each contributing own expertise and knowledge. It was agreed that data would be collected through participatory workshops and that the information gathered in this manner would be documented and used to supplement existing information. It was agreed that existing information would be compared and, where applicable, be combined with information from the workshops to develop a clear and comprehensive design brief and a creative strategy. The project was conducted with the active involvement of both the client and the designer. The researcher contributed time and expertise and participated in the workshops, while the client participated in the workshops and provided resources in the form of consultants and customers, who agreed to be participants.

6.1.2 Criterion two: The principle of the cyclical process model (CPM)

The CPM is a five-stage model consisting of the diagnosis of a problem, planning of action based on the diagnosis, implementation of plans, change, and evaluation. The CPM ensures that research conforms to Archer's (1995:1) first prerequisite for validity, namely a systematic and methodical approach.

The client's initial pre-brief instruction was, at first glance, very clear and specific in terms of what she perceived to be the problem and how she wanted it solved. The limited substantiating information in the pre-brief instruction, however, led the researcher to suspect that the design problem might be more complex than a merely outdated visual appearance. Consequently, a two-fold problem was diagnosed. Firstly, the design problem was unclear and secondly, insufficient information about the target audience was available to successfully develop a design brief and creative proposal. Consequently the client and the researcher devised a plan to conduct workshops with consultants who are in regular, close contact with customers to identify their own issues / problems and develop their own solutions. The plan was executed with two participative workshops, where all interactions

[35] A copy of the signed letter of consent is available in Appendix H.

and outcomes were carefully recorded, documented and reviewed. Outcomes from the workshops were analysed and evaluated and resulted in significant changes, not only to the definition of a design problem and target audience review, but also to many other aspects of the design brief. Based on needs and expectations identified in the workshops, the design problem proved to be much more complex than had been anticipated. This in turn impacted on sections in the brief pertaining to the company portfolio, product ranges, branding strategy and ultimately on the scope, timeline and budget of the design project. The final brief / creative proposal represents an analysis, reflection and evaluation of the outcomes of the project. The client accepted and signed off the final brief / creative proposal, which can be regarded as an explicit decision to proceed through an additional process cycle, namely the design and testing of prototypes and the final implementation of the designs. Chapter five of this study offers the researcher's independent reflection on the outcomes of the project. Changes will be evaluated during the next phase of the design process, where customers and consultants will test new concepts and prototypes based on the brief.

6.1.3 Criterion three: Principle of theory

According to Svengren (1993:450) the consequence criterion demands that the theoretical reasoning of research is consistent with the chosen frame of reference and with existing theories and other research findings. Theory plays a central role in action research, serving as a guide for research activities. Theory may be present at the start of a project or develop during the course of the project. This project was initiated based on the client's hypothesis that a more contemporary and less gender-specific visual treatment of package labels might appeal to a wider target audience. The researcher's independent diagnosis was based on the theory of what information a good design brief should contain, according to Philips (2012:[sp]).

According to the criteria of Davison et al (2004), the problem domain and setting should be of interest to both the research community and the client and inferred problem causes, change activities and outcome evaluations must be theoretically guided. Well-established theories, such as the Design Ladder (The Austrian design ladder 2006:[sp]) and Design Matrix (Buchanan 1998:13) provided the theoretical context and frame. In this case-of-one study, theory played a central role through the entire brief development process. Two recurring arguments in design management literature, as discussed in chapter two, are the importance of managing the design process from start to finish, and the value of a user-based approach. Limited resources, understanding and knowledge often hamper the pre-

brief or brief development stage of design projects. This posed the gap that the problem and activities of the project was situated in.

Firstly, the impact of user involvement on the information gathering and brief development process is of interest to the research community, because new insights may emerge to address the problems of limited resources, understanding and knowledge. Simultaneously, outcomes were of interest to the client as previously undiscovered user needs and expectations emerged. These were extremely useful in the development of a comprehensive brief, which will ultimately enable the development of effective design outcomes.

Activities of the project were based on existing design literature concerning participatory approaches to design and more specifically on the theory that Open Space Technology (OST) would be a suitable tool due to the similarities and overlap in approach between participatory action research and the design process.

Outcomes were measured and evaluated against existing literature about what information a good design brief should contain. Not only did the project address all six areas of content, but it also yielded rich information with regards to user needs and expectations, which may lead to new innovation with regards to the client's product range.

6.1.4 Criterion four: The principle of change through action

Archer's (1995:1) criteria for validity demand that research should be goal-directed, based on the identification of an issue or problem worthy and capable of investigation. The pragmatic criterion, as discussed by Svengren (1993:450), determines that the research outcomes should be useful to both the client and the researcher. Adherence to the principle of change through action, as explained by Davison et al (2004:75), should include motivation from both the researcher and client to improve the situation, specification of the problem and its hypothetical causes, based on diagnosis and change resulting from the outcome of action. Adherence to this principle ensures that research simultaneously focuses on finding solutions to the client's specific problems *and* contributes to knowledge, thereby meeting both the criteria of being goal-directed and pragmatic.

The problem identified at the outset of this project was a poor brief due to a lack of information and market research resources, as well as the client's limited knowledge and understanding of design. As part of the process an initial interview with the client yielded more information than was anticipated, but it was still insufficient to adequately understand user needs and expectations. Interestingly, the participatory workshops yielded rich

information about user needs and expectations, but the impact was wider than this. Workshop outcomes eventually resulted in a re-definition of the design problem and the client's branding strategy, expanded the project scope significantly, and provided ideas which may result in the innovation of new products to address user needs.

6.1.5 Criterion five: The principle of learning through reflection

Davison et al (2004:76) argue that the explicit specification of learning is the most critical activity in AR. The principle of learning through reflection demands that both the researcher and the client reflect critically on the research outcomes and that the research activities and outcomes are reported clearly and completely. This critical reflection and subsequent reporting should enable readers to make their own assessments and interpretations, thereby complying with the awareness criterion for validity as described by Svengren (1993:450). Reporting on research outcomes and on the implications they hold for the existing situation, the wider client organisation and implications in terms of contributing to future knowledge as discussed in Davison et al (2004:77) ensures that AR also satisfies Archer's (1995:1) demand for research findings to be communicable, located within some framework of understanding for an appropriate audience and testable.

The overwhelming success in terms of information gathering and brief development has led to changes in the designer's standard briefing procedure. A new set of questions has since been developed for use in client-designer interviews and participatory workshops have been used in two projects for other clients. New product concepts in the creative proposal based on workshop outcomes have also enabled the designer to demonstrate the business benefits of design investment to the client.

Workshops with a similar approach are planned at the client's request for evaluating customer satisfaction with a newly launched range of convenience foods. Subsequent design commissions from the client show evidence of a different approach to design. This time the designer was approached much earlier in the product development process than on previous projects.

6.2 Implications of this study

This case-of-one study was limited to one project set in a specific context. Only through a critical reflection on the process as discussed above, the context within which it occurred and the various factors that may have influenced results as described in chapters four and five, could the outcomes of the study be extrapolated as guidelines for application in similar future projects or by other design practitioners. The implications of the study on the

internal environment in terms of the designer's approach to brief development in her practice, and in terms of organisational change in Body Inc's approach to design, have been discussed in chapter five. Subsequently, the implications of the study on the external environment in terms of the following need to be examined:

- Design practitioners
- SMMEs
- Design research

6.2.1 Implications for design practitioners

In a fast changing, complex world, design is about constructing and communicating within the context of users who all form part of larger systems. The designer's role as a collaborative agent of change is to facilitate the process of construction and communicate in a manner that is appropriate to the context and that considers the impact on the larger system. The task of the designer is to design for the individual in his / her immediate context, while considering the impact of the outcome on the system that the individual forms a part of (Buchanan 1999:12). Delivering effective and sustainable design outcomes that address all of these aspects requires designers to have a clear consideration and understanding of complex design problems, including an understanding of user needs and expectations.

Unfortunately, many design clients – especially SMME clients – do not have sufficient access to and experience of research, often resulting in a paucity of information on user needs and expectations in their brief to the designer. Designers too are generally not trained researchers, and everyday practice-based projects seldom allow time for any more research than the basic information gathering that characterises the initial phases of the design process (Friedman 2003:510). Consequently, due to insufficient information and a lack of understanding, design outcomes often fail to address the needs of end-users or the expectations of the design client. This study places the tools of design-thinking into the hands of the design client and the very people who are potential end-users, and they collaborate with the designer to explore and define unmet needs and design problems.

The outcomes of the study suggest that identifying and understanding unmet user needs may have a profound impact on all aspects of the design brief. Not only did the outcomes offer insight into unmet user needs, but they also presented the designer with rich information, which was extremely valuable in the development of ideas and concepts for a creative proposal. Careful documentation of all steps in the data gathering process and

systematic and rigorous inquiry yielded outcomes that could be used to substantiate aspects of the creative proposal on a strategic level that went far deeper than mere visual appearance of product labels. Furthermore, the outcomes enabled the designer and client to agree on clear design objectives and their respective roles in the design process. The outcomes were also valuable to the designer in justifying a project timeframe and budget.

The flow of daily activity in a design practice does not allow time for systematic research beyond what is absolutely necessary for a project, yet, senior designers especially, need a background stock of knowledge on which to draw when dealing with complex problems in specific clinical situations. This study suggests that participatory action research (PAR) may be an appropriate, familiar and useful research tool that designers can use during the brief development phases of the design process. Strong similarities between PAR and the design process may render PAR exceptionally useful to design practitioners. PAR may offer a means of addressing the designer's need to discover and understand user needs, while simultaneously contributing to design knowledge.

6.2.2 Implications for SMMEs

SMMEs play an important role in advancing economic growth and contribute to social and political stability (Organisation for Economic Co-operation & Development (OECD) 1996:10-18). Many industries in South Africa, have had to retrench employees due to the global economic slump. An official unemployment rate of 25.2% for the first quarter of 2012 by Statistics South Africa (Key economic indicators 2012: [sp]) is proof that jobs are hard to come by. Therefore, SMMEs may become an increasingly significant source of job opportunities.

SMMEs are an important component in advancing economic growth and its consequent social benefits and they play a critical role in the development and spread of innovation (Iduarte & Zarza 2010:20). Fast-moving and flexible, SMMEs' biggest competitive advantage over larger organisations may lie in innovation – the smaller organisational milieu of SMMEs allows for ideas and originality to be noticed, valued and adopted more readily (Iduarte & Zarza 2010:22).

Behind innovation lies a culture where design is recognised as an important resource and forms an integral part of all business processes from the outset, enabling a business to move away from copycat products, where design is only added as styling, to truly innovative products that enrich and improve the lives of users (Beverland & Farrelly 2007:10). Employing design as a strategic resource, however, requires an understanding

of the commercial benefits offered by design and the ability to formulate design objectives, write a design brief and evaluate and measure design outcomes (Borja de Mozota 2003:98). Such businesses need to be able to formulate objectives, develop a design brief and evaluate outcomes.

Unfortunately, many SMMEs are unaware of the commercial impact that design may have on their business performance and regard design as styling to be added at the end, independent of product development (Bruce et al 1999:300-302). Consequently, they often fail to formulate clear objectives or to develop a comprehensive design brief with the information needed by the designer to get to know or understand the client's business, let alone the needs of the end-users (Bruce & Docherty 1993:419-420; Iduarte & Zarza 2010:20-23).

Existing literature, as discussed in chapter one indicate that under these circumstances collaboration between the client and the designer to develop a comprehensive design brief that identifies the design problem, formulates business objectives and explores possible design strategies, may greatly benefit the client and the designer – not only in terms of design outcomes, but also in terms of learning that occurs (Bruce & Docherty 1993:419-422; Brazier 2004:62-65; Phillips 2012:[sp]).

This study suggests that brief development may profit even more from user involvement during the initial phases of the design process. As discussed in chapter five, user participation in discovering and exploring unmet user needs and design problems, was valuable in supplementing information from the client-designer interview and had a profound impact on all aspects of the design brief and subsequent creative proposal. Outcomes from this study afforded the designer the opportunity to be involved with product development from the outset and to demonstrate to the client that design has a valuable role beyond aesthetic enhancement in product development.

This focus of this study was limited to the initial phases of the design process. Ultimately, success or failure of design outcomes will only be clear at the end of the design process when previously defined objectives, sales and customer feedback can be used to evaluate the outcomes. However, for the initial brief development phase of this project, using a participatory approach involving stakeholders, proved to be valuable as awareness and improved understanding of user needs facilitated the formulation of clear and measurable design objectives.

This study suggests that participatory action research during the initial brief development phases of the design process may be useful in overcoming a highly prevalent lack of research and development resources in SMMEs. PAR during the initial phases of the design process offers a means of discovering and exploring user needs and expectations, which could enable businesses to employ design strategically, creating innovative solutions that are valued by customers and that can ultimately enhance their business success.

The participating design client has already demonstrated a more strategic approached to design in subsequent new design projects, which implies that some degree of knowledge transfer has occurred. It would appear that PAR might not only contribute to design knowledge during the initial phases of the design process, but could also be beneficial to the design client in terms of changes in the organisational approach to using design and individual skills in managing design.

6.2.3 Implications for design research

One of the key requirements of any research is that it addresses the concerns of practitioners in the field (Davison et al 2004:67). As discussed above, the task of designers is to design for individuals in their immediate and specific context, while considering the impact of the outcome on the wider system. For design research to be relevant and address the practical concerns of design practitioners, researchers need to explore and articulate the complex role of design within this widening context (Golsby-Smith 1996:25).

Yet, in literature reviewed for this study, one of the recurring criticisms against design research is a lack of relevance as it often fails to be useful to design practitioners, because its focus and frameworks are not wide enough (Cross 1999:6; Dorst 2008:7).

Much design research focus primarily on the *design* activity within projects and fail to recognise that design practitioners engage in a wide range of activities, such as creating their work environment, choosing the appropriate approach for specific projects, creating their roles within projects and devising ways of dealing with stakeholders and involving them. Design research needs to contribute knowledge in all of these areas, equipping especially senior designers with a robust body of knowledge to distinguish between classes of problems and to decide on appropriate tools to address them (Cross 1999:7; Friedman 2003:519; Dorst 2008:10)

One sorely neglected area of design research is a paucity of methodologies of inquiry that are suited to design or “designerly ways of knowing” (Cross 1999:7). As a young discipline,

design research tends to borrow tools and methods from other disciplines that are sometimes not connected to the design content being studied, nor built on an understanding of how designers work. These are then offered to designers for use in practice without rigorously testing them and without any guidelines for application (Dorst 2008:7). This dearth of methodologies and methodological guidelines contribute to what appears to be the other criticism levered against design research, namely its lack of rigour.

Systematically documenting and critically evaluating the process of creation during a design project is an unpleasant chore for most designers who are not trained in these skills and who have to produce outcomes within limited timelines imposed by clients. As a result, a lot of the research that is presented, especially by design practitioners, is at best case studies of specific projects, or at worst, highly anecdotal essays on projects (Swann 2002:59; Svengren 1993:449). One of the pitfalls of case studies is that the needs of the client often supersede the need to contribute to knowledge (Svengren 1993:449). A maturing profession, seeking to be taken seriously by business and by the wider research community, needs to become more self-critical and more systematic in providing evidence of its findings and should have methodological guidelines for evaluating such findings. Case studies can be highly valuable in generating questions and hypothesis for testing in applied research, leading to the development of generalisable, but grounded theory, but this is only possible through systematic, rigorous inquiry, critical evaluation and objective articulation of findings (Swann 2002:59: Friedman 2003:519).

As discussed in chapter three, several authors have explored the potential and merits of action research as an appropriate methodological approach for design research. Strong similarities between the AR and the design processes, overlaps in the way action researchers and designers work, together with careful and systematic documentation of all steps and established and proven methodological guidelines suggest that AR is highly suitable as a tool for design research (Svengren 1993:444-456; Swann 2002:49-61; Carroll 2006:3-17).

As a practical exploration of AR in a collaborative attempt to discover and explore user needs during the early phases of the design process, and to evaluate the consequent impact on brief / creative proposal development, this study-of-one demonstrated that AR is a tool that design practitioners can use. AR is based on an understanding of how designers work and is appropriate to design content, while simultaneously addressing the need for systematic inquiry and rigour, which is often absent from design case studies.

This study was limited to a case-of-one and focused only on the initial phases of the design process. The questions raised for future research are, firstly, how this approach can be applied to other design projects as a general guideline and secondly, how this approach can be applied to the entire design process from beginning to end.

6.3 Conclusion

Design is a young discipline, yet the domains in which design activities are discernible have expanded over the past century to include virtually every aspect of human endeavour. Consequently, design outcomes can and do impact on the economic, social, cultural and environmental situations of the people who use them and the systems they form a part of. Against this background the complex task facing designers is to deliver design solutions for the individual that are appropriate to the context and that considers the impact on the wider system. Such a complex and difficult challenge can only be met if designers are able and willing to understand and consider the specific design problem in all its complexities and the design client and end-users' needs and expectations.

Unfortunately, often due to a lack of understanding of design or of research resources, design clients are sometimes unable to supply the designer with all the information he / she needs to make considerate and informed design decisions during the design process. Clearly then, a need exists for designers – especially senior designers, to develop research skills that can be used during the initial information gathering and brief development phases of the design process. Designers also need access to a robust, reliable and relevant body of design knowledge based on design research, which can be used to infer generalisable guidelines for distinguishing between and designing for different classes of design problems.

This study was born out of a designer's frustration with the inadequate design briefs given by many clients, their lack of regard for design as anything more than mere aesthetic enhancement and the stumbling blocks these presented in terms of delivering effective design solutions. Initially the study set out primarily to explore participatory action research as a tool for designers to gather information about the needs and expectations of stakeholders in order to supplement and enhance the brief development phase of the design process.

Early on a review of literature about design research and about action research, however, already suggested that participatory action research might simultaneously be useful as a suitable research method for designers to ensure reliability, validity and sufficient rigour in

documenting design case studies with the aim to present them as clinical research. Thus, this study proceeded with the dual purposes of exploring participatory action research as a tool for discovering user needs and expectations during brief development and as a research tool that fits the way designers naturally work, while ensuring the necessary rigour and validity which are often absent from design case studies.

In terms of brief development, the participatory workshops used in this study, certainly had a major impact. Through the participatory approach employed in this study, the brief expanded from the client's initial design instruction, which was very specific on what was required in terms of visual appearance without offering much explanation as to why, into a comprehensive final brief and creative proposal that focused on addressing strategic business issues through tailored design solutions.

More surprising to the designer, and certainly significant, was how effortless and seamless the action research approach fitted into the exploratory phases of the design process, The well-established and tested methodological guidelines and principles of action research proved extremely valuable in demonstrating rigour, reliability and validity, making possible the presentation of this study as a valid clinical research case study.

If and why the final design solutions based on the creative proposal from this study will be effective, remains to be tested and evaluated during the next phases of the design process. Whether participatory action research approaches will be useful to other designers in different design projects is open to more exploration. One can argue that this study was conducted under very specific circumstances and with definite limitations, but as discussed in the introduction to this chapter, every case study is set in unique circumstances with unique role players. What this study has succeeded in is raising questions about the wider application of participatory action research in design that might be explored in further case studies and that could even conceivably raise theories for testing in applied research.

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APPENDIX A: LETTER WITH PROPOSAL AND ASKING ITS CONSENT TO USE THE PROJECT FOR RESEARCH WHICH WAS SENT TO BODY INC

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Humanities
Department of Visual Arts

April 2012

Department of Visual Arts, University of Pretoria

Researcher: Lizette Carstens

MA Student

Dear Mrs Crawley (neé Pienaar)[36]

Letter of Informed Consent: *Exploring participatory action research as a tool for designers during the exploratory phases of the design process* for the Master's degree in Information Design

I would like to invite your business to participate in a research study, which forms part of the requirements for a Master's degree in Information Design. The aim of the study is to explore how user participation in the design of packaging might assist the designer in understanding the needs and expectations of users when exploring possible design solutions. I would like to conduct a series of workshops involving some of your consultants, as well as some of your clients. This would be an exploratory workshop where the participants would design packaging for your slimming products, using supplied materials such as magazines and photocopied images, sheets with lettering on them, glue, paper scissors, felt tipped pens and other drawing and crafts materials. Participants will work in groups of their own choosing and each group will also, at the end of the workshop, be asked to "pitch" their design to the entire assembly.

The idea behind the research is to gain information on users' preferences, needs and expectations with regards to the packaging of products they are already familiar with. When a designer is commissioned to design something (in this case packaging) the client is expected to brief the client on what is required, what needs it should address, what limitations there are in terms of legal, logistical and technical requirements and how users are expected to interact with and use the design solution. The client often lacks the budget, capacity and / or experience to do the research necessary in order to provide this information in the design brief.

These workshops aim to involve all stakeholders including the client, consultants, customers and designer in designing packaging. This will not form the final design, but I hope that the participation of all stakeholders and the resulting designs, will offer valuable information on the needs and expectations of all. This might give the designer and the design client a better understanding of users' needs, expectations and preferences, assist them to draft a more comprehensive design brief and enable the designer to deliver an appropriate design solution.

I would like to document the workshop to support my study, using video and photography. If anyone would like to remain anonymous, the footage could be taken in such a way as to ensure this (i.e. hands could be photographed rather than faces).

[36] During the course of this project, the design client, Ms Crawley got married. At the outset of the projects, her name was still Ms Pienaar

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Any information gathered during the study regarding the design client, the business, products consultants and customers will be treated as confidential and the client's business may choose to remain anonymous in my dissertation (in which case it will be referred to as client A).

The workshop will take no longer than five hours to complete. The workshop is completely voluntary and all participants will be asked to sign a consent form. If at any time during the workshop or in future a participant wishes to withdraw their participation, all documentation involving them will be destroyed without question. Once the study is complete, it will be stored at the University of Pretoria and a formal request, similar to this one, will have to be made for its use in future studies. The workshop will be fun and interactive and could also serve as a valuable team-building exercise for consultants. The material designed at the workshop will be returned to the client, who will be free to use it as he / she sees fit. Information contained in the report will be made available to the client.

The workshops will be facilitated by a qualified facilitator, Dr Linah Joubert.

I would like to arrange the workshop in July or August 2012 at any point to suit your schedule and would appreciate a reply at your earliest convenience.

Thank you for your time and consideration.

Lizette Carstens

APPENDIX B: SCHEDULE FOR SEMI-STRUCTURED INTERVIEW WITH CLIENT

This semi-structured interview with open questions aims to confirm the design client's objectives and expectations. Its purpose is to determine basic design guidelines and boundaries, and to establish criteria against which the design outcomes can be measured.

Information obtained through this interview will be used in a research study which forms part of the requirements for a Master's degree in Information Design. The aim of the study is to explore how user participation in the design of packaging might assist the designer in understanding the needs and expectations of users when exploring possible design solutions.

This interview will be recorded on paper and transcribed by the interviewer. The client may have copies of transcription of the interview, should she request them. All information obtained through this interview will be treated as confidential.

Please note that should the client prefer to remain anonymous, she will be referred to only as client A.

Once the study is complete, it will be stored for a period of 15 years at the University of Pretoria, together with all records and transcriptions. Should the client prefer, the record and transcription of this interview can be stored in a sealed envelope. Should the need arise to use the record, transcription or information in any future studies, the client's permission will be requested in writing.

Based on information gathered from this interview, the client will receive a written design brief, creative proposal and cost estimate, detailing the design problem and objectives, as well as a proposed design solution. She will be asked to evaluate and approve the brief and creative proposal. She may ask questions and raise concerns should she disagree with any aspects of the brief and / or creative proposal.

QUESTIONS

Section 1: Background Information

1.1 Are you the founder of Body Inc. Diet clinics?
1.3 Since when has Body Inc. been in existence?
1.3 What is your business background?
1.4 What is your current role in the organisation?
1.4 Do you have any experience in buying or doing market research?

1.5 Do you have any previous experience in the buying or commissioning of any design projects? Please elaborate?

1.6 If yes, was the experience a positive or a negative one? Please explain?

1.7 Were you involved in the design of the current packaging? In what way?

Section 2: Business Objectives

2.1 What has motivated the planned change in packaging?

2.2 What do you expect from the new packaging?

2.2 What objectives would you like to achieve with the change in packaging?

2.3 What, if any, aspects of the current packaging would you like to retain and why?

2.4 Describe the 'personality' of your brand?

2.5 What message would you like the new packaging to convey?

2.6 Are there any aspects of your brand's 'personality' that you would like to emphasise more on your packaging?

2.7 Should your packaging relate to your corporate identity?

2.8 Will the new packaging form part of any other promotional campaigns?

Section 3: Background Research

3.1 Previous research

3.1.1 Have you done any research into your target market prior to the decision to change your packaging?

3.1.2 If yes, please elaborate?

3.2 Information about target clients

3.2.1 In what age group do most of you clients fall?

- Younger than 20
- 20 - 30
- 30 - 40
- 40 - 60
- Older than 60

3.2.2 Among which age groups do you expect the highest expenditure on your products?

3.2.3 Do any products appear to be more popular among specific age groups, and if so, to what would you ascribe that to?

3.2.4 Do you feel there is room for growth in sales among any specific age groups? Why?

3.2.5 Are your clients mostly female or male?

3.2.6 Are your clients mostly from the geographic areas surrounding the clinics they attend, or from further afield?

3.2.7 Are your clients predominantly from any specific language or racial groups, and if so, from which groups?

3.2.8 Are there any groups, be it ethnic, racial, language, age or sex, where you feel product sales may be increased through design changes to the packaging? Why and how do you think it may be improved?

Section 3.3 Competitors

3.3.1 Are any slimming products currently on the market in direct competition with yours? Please name them?

3.3.2 How do you currently differentiate from these competitors?

Section 4: Practical Considerations

4.1 Product information

4.1.1 How many different slimming products will there be in your range?

4.1.2 Will any products be available in more than one volume / weight? Please name them and explain why?

4.1.3 Your products will all be manufactured by outside suppliers who will repackage them for you in your own special packaging. Do the suppliers of each individual product have any technical requirements? Please describe them per product.

4.1.4 What will the legal requirements in terms of labelling and safety for each product be?

4.1.5 What will the distribution requirements in terms of packaging size, weight, volume and shelf life be?

4.2 Product Distribution

4.2.1 Describe how your products will be distributed to clients, e.g. will it be freely available in specific stores or will your consultants supply directly to clients on order?

4.2.2 Will products be displayed in your clinics?

4.2.3 How will clients get promotional information regarding products?

4.2.4 Are there any other considerations we should be aware of when designing the packaging?

Section 5: Role players / stakeholders

5.1 Who do you feel should be involved in the development of the packaging?

5.2 Have there been any requests or suggestions regarding packaging of any of your products from sales consultants?

5.3 Have there been any requests or suggestions regarding packaging from clients?

5.4 Have there ever been any positive or negative feedback from clients regarding the current packaging? If yes, please elaborate and explain what measures, if any, you would like to take to address the feedback.

5.5 What do you think your customers expect from your packaging?

5.6 What, in your consideration, would make for successful packaging?

At the end of the interview the client will be thanked for agreeing to spend the time to answer the above questions and an indication will be given of by what time the first proposal can be expected from the designer.

APPENDIX C: TRANSCRIPT OF SEMI-STRUCTURED INTERVIEW WITH CLIENT

This semi-structured interview with open questions was conducted with the client on 10 October 2012. Its aim was to confirm the design client's objectives and expectations. Its purpose was to determine basic design guidelines and boundaries, and to establish criteria against which design outcomes may be measured.

The design client has agreed to the interview being recorded in writing and for information obtained to be used in a research study, which forms part of the requirements for a Master's degree in Information Design. The aim of the study is to explore how user participation in the design of packaging might assist the designer in understanding the needs and expectations of users when exploring possible design solutions.

She has declined to remain anonymous, and does not require any of the information obtained to be treated as confidential. She has also declined to view the records of the interview. She has agreed to the storage of all material related to the research, for a period of 15 years at the University of Pretoria, together with all recordings and transcriptions.

Transcript starts: Based on information gathered from this interview, you will receive a written design brief, creative proposal and cost estimate, detailing the design problem and objectives, as well as a proposed design solution. You will be asked to evaluate and approve the brief and creative proposal. You may ask questions and raise concerns should you disagree with any aspects of the brief and / or creative proposal. The document will be rewritten until you approve.

Section 1: Background Information

1.1 Are you the founder of Body Inc. Diet clinics?
A: Yes, founder and owner.

1.4 Since when has Body Inc. been in existence?
A: Since 2005.

1.3 What is your business background?
A: Previously involved in day-to-day management of a pharmacy. Body Inc. is my first business.

1.5 What is your current role in the organisation?
A: I am the owner and chief executive officer. I make all decisions, and handle all financial, product, marketing, and research and development issues.

1.6 Do you have any experience in buying or doing market research?
A: No, I have never done, or commissioned any market research.

1.7 Do you have any previous experience in the buying or commissioning of any design projects? Please elaborate?

A: Yes, but only with one design firm, namely yourself. I have commissioned a corporate identity for Body Inc. in 2007, as well as our current packaging, a website, our booklet with diet and exercise guidelines and several posters and pamphlets.

1.8 If yes, was the experience a positive or a negative one? Please explain?

A: My experience has been positive. The designer had listened to our ideas and translated them into solutions that had served us well in the past.

1.9 How did you find design services?

A: The specific designer was someone I knew from my children's school, and was recommended by a friend.

1.10 Did you look at the designer's portfolio or on what did you base your decision to use the specific designer?

A:No, I did not look at her portfolio. I asked her to meet with me for an interview, during which we discussed my design needs and expectations and she subsequently submitted a design proposal and cost estimate for the design of a corporate identity. My decision was based on the reasonable cost estimate and the fact that we had instant rapport during the briefing interview.

1.11 Were you involved in the design of the current packaging? In what way?

A: Yes. I briefed the designer in terms of the image we wanted to portray on the packaging, the colours we wanted to use and I gave creative input in terms of the images and graphics we liked.

Section 2: Business Objectives

2.1 What has motivated the planned change in packaging?

A: There has been feedback from clinic consultants and clients that they found our tablet containers difficult to open and our slimming gel container too big and impractical. We have recently launched a range of pre-prepared foods, which requires packaging. We have been using the same packaging for the past six years, and decided to revamp existing packaging simultaneously.

2.2 What do you expect from the new packaging?

A: A fresh, brighter look that is more in line with current trends in fashion and décor. We would like to establish an even stronger consistency of brand image throughout our range of products. We want to convey a professional image. We expect the new packaging to address the concerns voiced by consultants and clients regarding the existing packaging.

2.2 What objectives would you like to achieve with the change in packaging?

A: Increase sales of products that performed poorly due to impractical packaging. Increase sales among male clients – especially with our whey protein. Differentiate ourselves from our competition by reflecting a more professional consistent image.

2.3 What, if any, aspects of the current packaging would you like to retain and why?

A: We would like to retain the purple and green we used previously, perhaps just brighter shades of them. We found that the leaf motif on the existing packaging worked very well to convey the idea of an all-natural product – we would like to retain that. Using photographs of a healthy, well-toned female, has worked well in the past, although we can use fresh photographs, and maybe include a male photograph for the whey protein.

2.4 Describe the 'personality' of your brand?

A: In terms of a celebrity, Catherine Zeta Jones would probably be a good embodiment of the brand. A mature women, who takes good care of herself, is strong, and dynamic and to whom natural health and beauty is important.

2.5 What message would you like the new packaging to convey?

A: I want the packaging to look professional. I want to emphasise the fact that our products are all natural. I want to convey the promise of our programme, in other words a stronger, healthier, slimmer body, the healthy, natural way.

2.6 Are there any aspects of your brand's 'personality' that you would like to emphasise more on your packaging?

A: Not so much the personality, but I would like to emphasise the fact that our products are all natural, and that they do really work.

2.7 Should your packaging relate to your corporate identity?

A: Definitely. A strong, consistent identity is what sets us apart from our competition. We could consider "tweaking" the logo a bit for the different ranges of products, for example the slimming range and the pre-packed food range.

2.8 Will the new packaging form part of any other promotional campaigns?

A: Not in the near future, no, but it will probably influence the appearance of our information booklet, and other collateral in future.

Section 3: Business

3.1 Background Research

3.1.1 Have you done any research into your target market, prior to the decision to change your packaging?

A: No, but I have taken comments from consultants and customers into account.

3.1.2 If yes, please elaborate?

3.2 Information about target clients

3.2.1 In what age group do most of you clients fall?

- Younger than 20
- 20 - 30
- 30 - 40
- 40 - 60
- Older than 60

A: Mostly 30 - 40, although we do have many 40 – 60 year olds and some younger clients as well.

3.2.2 Among which age groups do you expect the highest expenditure on your products?

A: The 30 - 40, and 40 - 60 year old groups

3.2.3 Do any products appear to be more popular among specific age groups, and if so, to what would you ascribe that to?

A: Not among specific age groups, no. Sales of different products vary widely from clinic to clinic. Usually, if the consultant at the clinic uses the products, and finds it to be working for her, sales of that product are high. The slimming tablets and drops are our bestsellers, because they from part of the basic slimming package.

3.2.4 Do you feel there is room for growth in sales among any specific age groups? Why?

A: Yes, our Colon Support and Thyrostim tablets could do better. Clients need to be educated about the benefits of these two products. I also think we could increase our sales of the whey protein if we pitched it at the male market – we have a client who does bodybuilding, who recently started selling it at his gym, and this shows potential.

3.2.5 Are your clients mostly female or male?

A: About 90% of our clients are female. However, the males that do join the programme show exceedingly good progress.

3.2.6 Are your clients mostly from the geographic areas surrounding the clinics they attend, or from further afield?

A: Yes, our clients are from the areas surrounding our clinics.

3.2.7 Are your clients predominantly from any specific language or racial group, and if so, from which groups?

A: Our clients are predominantly white, but that is probably because our clinics are situated in predominantly "white" suburbs. Our clinic in Lenasia, for example, has mostly Indian clients. The predominant race and / or language of clients, is strongly linked to the predominant race and / or language of the suburb in which the clinic is situated.

3.2.8 Are there any groups, be it ethnic, racial, language, age or sex, where you feel product sales may be increased through design changes to the packaging? Why and how do you think it may be improved?

A: We have had comments from males that the whey protein looks too feminine. Perhaps, expanding sales into the bodybuilder / gym market might require a change to the packaging of the whey protein. I think changing the containers of the tablets and the slimming gel might also make the products more attractive to clients.

3.3 Competitors

3.3.1 Are any slimming products currently on the market in direct competition with yours? Please name them?

A: Yes, "Die dieet waarvan almal praat" is our most direct competition, as its offering is similar to ours. Then there are also all the other slimming programmes, such as Weigh Less and SureSlim.

3.3.2 How do you currently differentiate from these competitors?

A: I think we offer better value for money than our direct competition – our prices are lower and our clinics offer more support to clients. We have a wider range of supporting products available – especially with our readymade meals, and special tea coffee and sweetener. Our branding is far more consistent and our products and marketing material look more professional. We have totally different colours than they do.

Section 4: Practical Considerations

4.1 Product information

4.1.1 How many different slimming products will there be in your range?

A: At present there are nine slimming products. There is only one food product that we sell under our own brand, but this may change if we can find a way to get suppliers to package our food products especially for us. At the moment our sales volumes are not high enough to warrant this.

4.1.2 Will any products be available in more than one volume / weight? Please name them and explain why?

A: Our slimming drops are available in two sizes, because it is a part of our basic programme and it really works. Clients sometimes prefer to buy a bigger bottle after their initial bottle is finished.

4.1.3 Your products will all be manufactured by outside suppliers who will repackage them for you in your own special packaging. Do the suppliers of each individual product have any technical requirements? Please describe them per product.

A: There are no technical requirements that we know of. We find that the suppliers who themselves are smaller operations, are more willing to package specially for us. The large companies are not prepared to accommodate us at all – in which case we are compelled to use their standard containers and to label the products ourselves, by hand.

4.1.4 What will the legal requirements in terms of labelling and safety for each product be?

A: There are no legal requirements that we are aware of. Our products are all supplied in sealed and / or tamperproof containers. The labelling information we get from the suppliers, and just add to our own labels.

4.1.5 What will the distribution requirements in terms of packaging size, weight, volume and shelf life be?

A: None that I can think of.

4.2 Product Distribution

4.2.1 Describe how your products will be distributed to clients, e.g. will it be freely available in specific stores or will your consultants supply directly to clients on order?

A: Our clinics are usually situated within pharmacies. The products are stocked on a shelf in the pharmacy, so clients can buy off the shelf, although our consultants actively encourage sales.

4.2.2 Will products be displayed in your clinics?

A: Products are displayed in the clinics and consultants actively encourage clients to buy them.

4.2.3 How will clients get promotional information regarding products?

A: Consultants inform them about products during their consultations, but we also do run promotional leaflets and advertisements from time to time.

4.2.4 Are there any other considerations we should be aware of when designing the packaging?

A: Some of the sizes and types of containers are fixed, as we are compelled to use the suppliers' standard containers.

Section 5: Role players / stakeholders

5.1 Who do you feel should be involved in the development of the packaging?

A: Usually, the designer and I are the only parties involved in the process. I do get feedback from consultants, and they also give me feedback from clients, but the final decisions rest with me. It would be interesting to have active input from consultants and clients.

5.2 Have there been any requests or suggestions regarding packaging of any of your products from sales consultants?

A: Consultants and clients have commented on the impractical size of the slimming gel container, and there have been some complaints that the flip-top containers of the tablets are either difficult to open, or sometimes pop open by themselves. Some male customers commented that the whey protein's label is too feminine.

5.3 Have there been any requests or suggestions regarding packaging from clients?

Yes, some clients have requested smaller containers of the slimming gel. They also sometimes complain about having to scoop the content out by hand.

5.4 Have there ever been any positive or negative feedback from clients regarding the current packaging? If yes, please elaborate and explain what measures, if any you would like to take to address the feedback.

A: I would like to explore different containers for the slimming gel and tablets.

5.5 What do you think your customers expect from your packaging?

A:Packaging that appears as professional as we conduct our business. Packaging that is safe and keeps the products fresh. Packaging that provides products in practical volumes and is practical to handle.

5.6 What, in your consideration, would make for successful packaging?

A: Packaging that reflects our professionalism and that is consistent with our brand. Packaging that is professional. Packaging that reflects the promise of our programme.

CONCLUSION

I would like to thank you very much for taking the time to answer all my questions with regards to your business in general an to your products labels specifically. We will get back to you with an analysis of the design issues as we view them based on the information given by you and a creative proposal of how we believe they can best be addressed. We will be able to send this proposal through within the next five workdays.

APPENDIX D: PROPOSAL BASED ON CLIENT-DESIGNER INTERVIEW

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TO: **Body Inc Diet Clinincs**

Ms Lize Crawley

DATE: **2012/10/14**

Thank you for the opportunity to provide a proposal.

SUMMARY OF BUSINESS ISSUES

Project Overview:

Body Inc is a diet-clinic franchise with clinics in Gauteng, North-West Province, the Northern Cape and Namibia. These clinics follow a holistic approach to slimming, offering clients a complete package consisting of a specialised eating programme, an exercise programme and weekly monitoring by a slimming consultant. To assist cutomers with the slimming process, a range of herbal slimming products and dietary supplements are also on offer under the Body Inc brand. Body Inc is currently looking to expand into the prepacked convenience meal market as well with a range of low calory, low-carbohydrate meals suitable for customers following the Body Inc programme.

Body Inc uses an endorsed branding strategy, presenting all product ranges as products from the main brand, but each range with its own unique identity. Consequently, a new identity which will fit neatly with the existing brand needs to be developed for the new product range. Re-examining and redesigning all existing product labels to coincide with the launch of the new product range, appears to be a good idea, as packaging trends in the beauty and diet industries have moved to a stronger, bolder visual appearance than that of the Body Inc labels which were designed five years ago.

Consequently, Body Inc is seeking to redesign the labels of all their existing products and to design new labels for their new range of prepacked convenience meals. All labels need to reflect a bold, modern, yet sophisticated image.

Industry overview:

Body Inc currently competes in three industries. Its primary industry is the slimming industry, but with products such as its slimming gel and its nutritional supplements, it also competes in the beauty industry and the health industry. With the addition of their new product range of prepacked convenience meals, it will expand into the convenience food industry as well. In addition, recent interest from existing customers' male partners indicate that opportunities may exist to expand into the fitness industry with some of its supplements and its whey protein.

Company Portfolio:

The Body Inc portfolio presently consists of a slimming programme which includes a monitored eating plan and exercise regime, a range of 9 herbal slimming remedies and nutritional supplements, a slimming gel, and two food products, namely coffee and artificial sweetener. Of the slimming remedies, two products, namely Thyrostim and Colon Support were identified as poor performers in terms of sales. Body Inc suspects that poor sales may be due to customers being unaware of the benefits of the products, but research needs to be done dicover the actual reasons.

Lifestyle and time pressures appear to be a large stumbling block to people sticking to a healthy diet, because many people do not have the time to cook meals and there are limited options available to people seeking healthy, low calory convenience meals. Body Inc has identified this scarcity of healthy, diet-friendly convenience foods as an opportunity and from April 2013 their food range will expand to include six different prepacked meals options that are both healthy and low in calories.

Industry trends:

Body Inc has noticed a change in trends in the packaging of beauty products in recent months. Previously, colours on beauty products used to be soft, pastel colours paired with curved shapes and white space creating an overall soft, feminine appearance. Recently bold, bright colours paired with black, stylised graphics and luxury metallic finishes has been on the increase in the packaging of beauty products. The same trend has been noticed in the packaging of nutritional supplements.

Competitors:

One direct competitor with a similar product offering exists, and several other slimming programs with different approaches were identified as indirect competition. Strong customers support, a wide range of supplementary and nutritional products and competitive pricing is believed to be the main differentiators between the client and the direct competitor. Consistent branding across products and a consistent,clearly recognizable image differentiates them visually.

Branding strategy:

The current profile of Body Inc reflects a very specific visual treatment that was developed five years ago to appeal to, what was expected to be a predominantly middle aged (forty plus) female, middle to higher income group target audience. The use of a white background with a muted colour palette reflected the prevailing trend at the time, of a clean, soft, feminine appearance in the beauty and slimming industry. Since then, target audiences have expanded to include younger female customers (between twenty and thirty-five) and health and fitness conscious male customers, calling for a more dynamic appearance. In keeping with their holistic approach to slimming, and with a growing demand for easier, more convenient meal plans, the company portfolio will be expanded in 2013 to include a range of prepacked, convenience meals.

Body Inc presently uses an endorsed branding strategy, presenting all product ranges as products from the main brand, but each range with its own unique identity. Consequently, the new product range requires a new identity fitting with the overall brand.

Business strategy:

The client's business strategy follows a holistic, value-for-money approach to slimming. They strive to offer customers a healthy, sustainable, yet convenient weight-loss experience through a wide range of products addressing all areas of the slimming process, such as appetite control, nutritional supplements, exercise, recipes and convenience foods, thus building customer loyalty. A basic slimming program is priced lower than their competitors' and additional revenue is generated through sales of branded products.

Target audience:

The target audience is female customers between thirty and forty-five years of age and of middle to upper middle income who identify with a with a strong, modern yet elegant appearance. Little information is available about the needs and expectations of customers, no market research has been done to gain more information

Business Objectives:

- To differentiate products from competitors.
- Create a strong, cohesive and recognizable brand that will stand out on pharmacy shelves
- communicate a strong modern, yet elegant image which the client believes to be the inherent promise of their products
- Increase sales through “superior quality” offering.

Design elements required:

- New labels for all nine products in the existing homeopathic supplement range
- New labels for the existing beauty product (slimming gel)
- New labels for the existing two food products and for all food products currently in development

CREATIVE PROPOSAL

Creative strategy

Main competitors show no cohesive visual treatment in product packaging while secondary competitors still follow a pastel-on-white trend. To achieve cohesiveness, appeal to its expanding target audience, and differentiate from competitors, Body Inc could consider a tiered branding approach clearly distinguishing different product ranges from each other, but simultaneously linking all of them to the company brand. The existing logo lends itself well to the development of subtle variations each, for slimming products, supplements and food stuffs. The existing logo with the tape measure curled around a cinched in ‘i’ could be used for all slimming products, while the on the supplements, the tape measure might reflect a running / skipping figure, reflecting health and vitality. On food products, the tape measure could be a stylised waiter figure carrying a tray with a cloche, reflecting convenience. In all these logos the tape measure will be incorporated with the Body Inc logo type.

Visual appearance

The existing Body Inc products reflect a very specific visual treatment that was developed to appeal to, a predominantly middle aged female, middle to higher income group target audience. The use of a white background with soft purples and greens reflected the prevailing trend at the time, of a clean, soft, feminine appearance in the beauty and slimming industry.

Since then target audiences have expanded to include predominantly younger female customers (between twenty and thirty-five), calling for a more dynamic appearance. Trends in the visual treatment of packaging of beauty and slimming products have changed.

Visual appearances of other products in these industries now reflect a bold, modern approach which appears sophisticated and luxurious. Black labels, strong, graphic black and white photography paired with saturated, bright purples and greens, bold, sans serif fonts and simple, stylized graphics on the Body Inc products, will reflect a modern, sophisticated image. Body Inc products are all natural and safe. Currently a border with green leaves and flowers are used on all labels to convey this. The client indicated that Body Inc as well as its customers value its all natural approach, therefore retaining a leaf motif is advisable. However, the existing border could be simplified to a single stylised twig with new leaves – reflecting natural goodness *and* renewal without appearing cluttered or too feminine.

Practical Considerations:

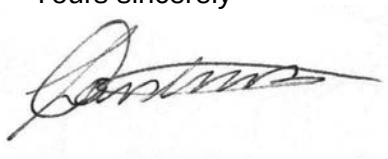
Currently, all products are manufactured by outside manufacturers and packaged under the client's own label — some by the manufacturers, but many by the client self. Due to relatively low sales volumes, standard containers supplied by large manufacturers are used. Volume product per container is determined by manufacturer's standard containers. Therefore, existing label sizes and formats will be retained on all existing products. Food labels can be printed on a simple wrap around cardboard strip which will be glued at the bottom, as all meals come in foil dishes with a sealed clear plastic cover.

Product information such as contents, directions for use and expiry date are supplied by the manufacturers and should be incorporated in the design.

Clinics are situated in pharmacies and products are available on shop shelves where they compete with awide range of other products. All packaging needs to be tamper proof. Food labels need to be able to resist water and heat as these products can be frozen and microwaved.

We hope this **proposal** will meet with your approval and look forward to being of further assistance in this regard.

Yours sincerely



Lizette Carstens

Creative Director

APPENDIX E: LETTER ASKING PARTICIPANTS CONSENT TO INCLUDE THEM IN THE STUDY

October 2012

Department of Visual Arts, University of Pretoria
Researcher: Lizette Carstens
MA Student, University of Pretoria, Faculty of Humanities, Department of Visual Arts

Dear Participant

RE: Invitation to participate in a Design Research Study, titled: 'Exploring participatory action research during the initial phases of the design process.'

I would like to invite you to participate in a research study titled: '*Exploring participatory action research during the initial phases of the design process.*' This study forms part of the requirements for a Master's degree in Information Design. The aim of the study is to explore how involving users of a product in the design of its packaging, might assist the designer to understand what they need and expect from the product packaging.

As part of this study, I will conduct an exploratory workshop where participants (you) will be asked to design packaging for any of the Body Inc. range of slimming products. You will be given empty containers and materials, such as magazines, photocopies of the Body Inc. logo and pictures, sheets with different lettering, glue, coloured paper, scissors, felt tipped pens, pencils and crayons to design your own package. You will be asked to work in groups with other participants, but you will be free to form groups yourselves and even to switch groups during the course of the workshop, should you feel the need to. At the end of the workshop, each group will be asked to "present" its design to the entire assembly. Workshops will last approximately four hours. You will be informed of dates, time and venues of workshops at least one week in advance. Workshops will be recorded, by means of photographs.

All recordings and transcriptions will be archived at the Department of Visual Arts at the University of Pretoria for 15 years.

Information arising from workshops and interviews may be used in writing my dissertation. I am not aware of any risks to which you should you agree to. Workshops and interviews are solely for research purposes and not for any form of personal gain. There will be no financial gains for you as participant. Your participation is voluntary and you may withdraw at any time without any negative consequences.

Should you wish to remain anonymous, photos will be taken in such a way that you are not recognisable and your identity will not be revealed in any transcriptions.

This study has been approved by the Head of the Department of Visual Arts at the University of Pretoria, as well as the UP Ethics Committee. Should you have any questions, concerns or doubts about participating, you are free to contact me at the numbers below.

I shall be grateful for your co-operation in this research study.

Lizette Carstens
MA Student, Faculty of Humanities, Department of Visual Arts

Email: lcarstens@imagefoundry.co.za
Tel: 011 954 2272
Cell: 082 566 5986

STATEMENTS OF CONSENT BY PARTICIPANTS

A. Consent Statement

I _____, agree to participate in this research study. I am aware of the terms and conditions regarding my participation, as outlined in the letter of invitation handed to me. Accordingly, I know that I can leave a workshop or stop an interview at any time and that the recording and notes will be destroyed in such a case. I note that workshops and interviews will be recorded on camera and that the design outcomes of the workshops will be photographed for research purposes and that it will be archived at the Department of Visual Arts at the University of Pretoria for 15 years.

B. I have been told that I have the right to view the photographs before it is used. I have decided that I:

(tick whichever is applicable)

☐ want to see the photographs

☐ do not want to see the photographs

C. I have been told that all the information derived from these workshops and/or interviews can be treated as confidential and that I may remain anonymous.

(tick whichever is applicable)

☐ My name may be revealed in the dissertation

☐ I want to remain anonymous

D. I have been told that the recordings will be archived at the University of Pretoria for 15 years.

(tick whichever is applicable)

☐ The information may be used in other research without my permission

☐ The information may not be used in other research without my permission, please contact me at _____ if anybody else wants to use the information

☐ The information may only be used for this study

Lizette Carstens may use the information derived from this workshop and interview for research purposes.

The workshop will be held at _____ on _____

The interview will be conducted at _____ on _____

_____	_____
Signature Participant	Date
_____	_____
Signature Researcher	Date
_____	_____
Signature Witness	Date

APPENDIX F: FINAL DESIGN BRIEF / PROPOSAL SUBMITTED BY DESIGNER TO CLIENT

imagefoundry
STRATEGIC DESIGN SOLUTIONS
CC2007/134953/23

082 566 5986
011 954 2272
086 682 5223
lcarstens@imagefoundry.co.za
www.imagefoundry.co.za
members: l. carstens

DESIGN PROPOSAL

TO: **Body Inc Diet Clinincs**

Ms Lize Crawley

DATE: **2012/11/15**

Thank you for the opportunity to provide a revised proposal following our workshops.

SUMMARY OF BUSINESS ISSUES

Project Overview:

Body Inc is a diet-clinic franchise with clinics in Gauteng, North-West Province, the Northern Cape and Namibia. These clinics follow a holistic approach to slimming, offering clients a complete package consisting of a specialised eating programme, an exercise programme and weekly monitoring by a slimming consultant. To assist customers with the slimming process, a range of herbal slimming products and dietary supplements are available under the Body Inc brand. Body Inc is currently looking to expand into the prepacked convenience meal market with a range of low calorie, low-carbohydrate meals suitable for customers following the Body Inc programme.

Workshops conducted suggest that Body Inc's suspicion that the visual appearance of its packaging required an overhaul was correct. The workshops also indicated that customers are frustrated with the total packaging, i.e. size, portability and usability of some products. Therefore merely overhauling visual appearance may not be sufficient to address customers' needs. Body Inc needs to completely re-think packaging of products such as the whey protein, slimming gel, and sweetener. Customer feedback in workshops revealed

that changes to some products may enhance its value offering and consequently might open opportunities for more lucrative pricing options. Reconsidering and redesigning packaging of its complete product range may therefore impact positively on the business strategy and profitability of Body Inc.

Currently Body Inc uses an endorsed branding strategy, presenting all product ranges as products from the main brand, but each range with its own unique identity. Customer feedback from workshops revealed that customers found this approach confusing and that they might prefer a monolithic strategy with all products falling under the same brand. Customers felt that the current visual appearance of Body Inc products did not reflect a modern, sophisticated image and their designs showed that they would find black in combination with stronger colours more appealing. As packaging trends in the beauty and diet industries have moved to a stronger, bolder visual appearance than that of the Body Inc labels, redesigning all existing product labels to coincide with the launch of the new product range, appears to be a good idea. All labels need to reflect a bold, modern, yet sophisticated image.

Industry overview:

Body Inc currently competes in three industries. Its primary industry is the slimming industry, but with products such as its slimming gel and its nutritional supplements, it also competes in the beauty industry and the health industry. With the addition of their new product range of prepacked convenience meals, it will expand into the convenience food industry as well. In addition, recent interest from existing customers' male partners indicate that opportunities may exist to expand into the fitness industry with some of its supplements and its whey protein.

Company Portfolio:

The Body Inc portfolio presently consists of a slimming programme which includes a monitored eating plan and exercise regime, a range of 9 herbal slimming remedies and nutritional supplements, a slimming gel, and two food products, namely coffee and artificial sweetener. Of the slimming remedies, two products, namely Thyrostim and Colon Support were identified as poor performers in terms of sales. Body Inc suspects that poor sales may be due to customers being unaware of the benefits of the products. No issues concerning these two products were raised in workshops. More research needs to be done dicover the actual reasons for its poor performance.

Customer feedback in workshops revealed areas where expansion of and changes to the existing product range may enhance the value offering of Body Inc considerably. A need emerged for smaller volumes of products such as the slimming gel and whey protein as well as additional travel size options for the slimming gel and sweetener. Customers indicated that they would prefer individually packed portion sized options for both the whey protein and the coffee.

Changes to some products' containers will improve users' product experience. For example, customers showed that they would welcome a more hygienic dispensing mechanism for the slimming gel, and a more accurate dispensing mechanism for the slimming drops. They aslo revealed that they found the container of the slimming tablets difficult to open and that they would prefer some sort of built-in dispensing mechanism in its container.

Lifestyle and time pressures appear to be a large stumbling block to people sticking to a healthy diet, because many people do not have the time to cook meals and there are limited options available to people seeking healthy, low calory convenience meals. Body Inc has identified this scarcity of healthy, diet-friendly convenience foods as an opportunity and from April 2013 their food range will expand to include six different prepacked meals options that are both healthy and low in calories.

Industry trends:

Body Inc has noticed a change in trends in the packaging of beauty products in recent months. Previously, colours on beauty products used to be soft, pastel colours paired with curved shapes and white space creating an overall soft, feminine appearance. Recently bold, bright colours paired with black, stylised graphics and luxury metallic finishes has been on the increase in the packaging of beauty products. The same trend has been noticed in the packaging of nutritional supplements. In workshops customers' designs of desired changes to products reflected similar changes. Some customers also showed a preference for the inclusion of male figures in the imagery used on packaging.

Competitors:

One direct competitor with a similar product offering exists, and several other slimming programs with different approaches were identified as indirect competition. Strong customers support, a wide range of supplementary and nutritional products and competitive pricing is believed to be the main differentiators between the client and the direct competitor. Consistent branding across products and a consistent,clearly

recognizable image differentiates them visually. In workshops, products such as the slimming gel, sweetener and whey protein were compared with similar products from other brands revealing product-specific competitors such as Annique and Elancyl for the slimming gel, Natreen and Canderel for the sweetener and USN Sports Nutrition for the whey protein.

Branding strategy:

The current profile of Body Inc reflects a very specific visual treatment that was developed five years ago to appeal to, what was expected to be a predominantly middle aged (forty plus) female, middle to higher income group target audience. The use of a white background with a muted colour palette reflected the prevailing trend at the time, of a clean, soft, feminine appearance in the beauty and slimming industry. Since then, target audiences have expanded to include younger female customers (between twenty and thirty-five) and health and fitness conscious male customers, calling for a more dynamic appearance. In keeping with their holistic approach to slimming, and with a growing demand for easier, more convenient meal plans, the company portfolio will be expanded in 2013 to include a range of prepacked, convenience meals.

Body Inc presently uses an endorsed branding strategy, presenting all product ranges as products from the main brand, but each range with its own unique identity. Consequently, the new product range would require a new identity fitting with the overall brand. However, workshops revealed that customers felt very loyal to the Body Inc brand, found the different sub-brands for different product ranges confusing and would prefer a monolithic strategy. Because a limited number of customers participated in workshops, The Image Foundry would suggest that more research is required to establish which branding strategy will be most advantageous to Body Inc.

Business strategy:

The client's business strategy follows a holistic, value-for-money approach to slimming. They strive to offer customers a healthy, sustainable, yet convenient weight-loss experience through a wide range of products addressing all areas of the slimming process, such as appetite control, nutritional supplements, exercise, recipes and convenience foods, thus building customer loyalty. A basic slimming program is priced lower than their competitors' and additional revenue is generated through sales of branded products. Small changes and additions to the packaging of some products could enhance the value offering of Body Inc and reinforce its strategy of superior value at affordable prices.

Target audience:

The target audience is female customers between thirty and forty-five years of age and of middle to upper middle income who identify with a with a strong, modern yet elegant appearance. Workshops yielded much information about customers needs and expectations as discussed in the above sections.

Business Objectives:

- To differentiate products from competitors.
- Create a strong, cohesive and recognizable brand that will stand out on pharmacy shelves
- communicate a strong modern, yet elegant image which the client believes to be the inherent promise of their products
- Increase sales through “superior quality” offering.

Design elements required:

- New labels for all nine products in the existing homeopathic supplement range
- New lables for the exisitng beauty product (slimming gel)
- New labels for the existing two food products and for all food products currently in development
- New / different containers for the slimming gel, coffee, whey protein, sweetener, slimming drops and slimming tablets.

CREATIVE PROPOSAL

Creative strategy

Main competitors show no cohesive visual treatment in product packaging while secondary competitors still follow a pastel-on-white trend. To achieve cohesiveness, appeal to its expanding target audience, and differentiate from competitors, Body Inc could consider a tiered branding approach clearly distinguishing different product ranges from each other, but simultaneously linking all of them to the company brand. The existing logo lends itself well to the development of subtle variations each, for slimming products, supplements and food stuffs. The existing logo with the tape measure curled around a cinched in ‘i’ could be used for all slimming products, while the on the supplements, the tape measure might reflect a running / skipping figure, reflecting health and vitality. On food products, the tape measure could be a stylised waiter figure carrying a tray with a cloche, reflecting convenience. In all these logos the tape measure will be incorporated with the Body Inc logo type. However, workshops revealed a preference for a monolithic branding strategy.

Therefore The Image Foundry believes that more research is required before any final decisions are made with regards to how the Body Inc logo will be used on the various products.

Some products will benefit from new or different containers as discussed below:

Slimming gel

For the slimming gel readily available clear plastic bottles with screw-on tops and pump-action handles available in 50 ml, 100 ml, and 375 ml sizes will not only address customers' concern for hygiene but will also enable a higher profit margin as the price per millilitre of product could be increased, while keeping the price per bottle attractive enough for customers. Additionally, a smaller bottle could afford potential customers the opportunity to first purchase a test sample. These sample sizes could also be used as appealing welcome gifts to new customers during a promotional campaign.Visual appearance

Slimming tablets

A major concern raised by customers in workshops, was that the slimming tablets' container is difficult to open, leading to spillages. Searching among its supplier network, The Image Foundry discovered a supplier of empty artificial sweetener dispensers available at a low cost in a variety of colours. As the slimming tablets are sold in a sealed bottle, repackaging them may not be viable, but selling empty branded Body Inc dispensers as an additional convenience, or handing them out as a free gift with a customer's first purchase of slimming tablets could enhance their perception of value for money.

Whey Protein, coffee and sweetener

Bulk volume and high cost per container were concerns raised regarding the whey protein, coffee and liquid sweetener products. The Image Foundry has discovered a supplier of small, Tetrafoil sachets who offers personalised branding and packaging services, employing people from disadvantaged communities. All three of the above products lend themselves to this form of packaging. As Body Inc production volumes of these products are relatively small, the supplier has indicated that it would be able to assist. Packaging costs for these products may increase as a result, but may also enable a higher income per unit resulting in a limited effect on profit margins. A smaller volume per package means that products can be priced lower and customers may need to purchase more frequently thus increasing sales and customer satisfaction.

Visual appearance

The existing Body Inc products reflect a very specific visual treatment that was developed to appeal to, a predominantly middle aged female, middle to higher income group target audience. The use of a white background with soft purples and greens reflected the prevailing trend at the time, of a clean, soft, feminine appearance in the beauty and slimming industry.

Since then target audiences have expanded to include predominantly younger female customers (between twenty and thirty-five), calling for a more dynamic appearance. Trends in the visual treatment of packaging of beauty and slimming products have changed.

Visual appearances of other products in these industries now reflect a bold, modern approach which appears sophisticated and luxurious. Black paired with saturated, bright purples and greens, bold, sans serif fonts and simple, stylized graphics will create a bold modern appearance. To complement the colour scheme and achieve a more elegant image, high contrast black and white photographs of both sexes against a simple black or white backdrop could be used prominently on all labels. Photographs of both sexes across the product range will be received well by customers, therefore images on products that appeal equally to male and female customers, such as the whey protein, coffee, sweetener and multivitamin labels could reflect males rather than females.

Body Inc products are all natural and safe. Currently a border with green leaves and flowers are used on all labels to convey this. The client indicated that Body Inc as well as its customers value the all natural approach. Retaining a leaf motif is therefore advisable, but replacing the existing border with a stylised twig with new leaves running from top to bottom may declutter small labels and enhance a modern, elegant appearance – reflecting natural goodness *and* renewal without appearing too feminine.

Some customers complained that product instructions and information were unreadable on some labels because type was too small. This is due to the small size of labels on products such as the slimming drops and slimming tablets. On these labels text is currently white reversed out of a green background. A different typeface with a larger x-height in black which is printed over a lime green or white background will be more readable without requiring more space on labels. Alternatively, to allow optimal space on small product labels, a long fold-out label with a perforated edge could be implemented with product information and instruction printed on the fold-out section of labels.

Practical Considerations:

Currently, all products are manufactured by outside manufacturers and packaged under the client's own label — some by the manufacturers, but many by the client self. Due to relatively low sales volumes, standard containers supplied by large manufacturers are used. Volume product per container is determined by manufacturer's standard containers. However, as discussed above, alternative solutions are available and may prove viable for some products.

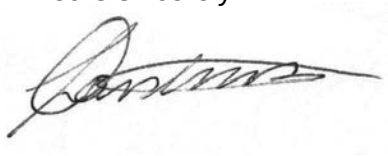
Food labels can be printed on a simple wrap around cardboard strip which will be glued at the bottom, as all meals come in foil dishes with a sealed clear plastic cover.

Product information such as contents, directions for use and expiry date are supplied by the manufacturers and will be incorporated in all designs.

Clinics are situated in pharmacies and products are available on shop shelves where they compete with awide range of other products. All packaging needs to be tamper proof. Food labels need to be able to resist water and heat as these products can be frozen and microwaved.

We hope this **proposal** will meet with your approval and look forward to being of further assistance in this regard.

Yours sincerely



Lizette Carstens

Creative Director

APPENDIX G: INITIAL DESIGN INSTRUCTION FROM BODY INC WHICH WAS EMAILED TO THE IMAGE FOUNDRY

From: BodyInc
To: "Image Foundry"
Subject: Change to design of product labels
Date: 04 June 2012 11:27:35 AM

Hi Lizette
I hope you are well?

We plan to launch a new range of prepacked meals early next year, for which we will need a set of labels designed. At the same time, we would like to look at the design on our existing product labels an maybe update them a bit? We would like a more sophisticated appearance, maybe with stronger colours and a black background. We would like to keep the Body Inc logo and the little leaves.
Can you come up with some ideas and a quote, please?

Lize Pienaar
Director

BODY inc. diet clinics

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