The collaborative designer:
An investigation into the lived experience of co-design practice

Chrissie Louise Smith

Abstract

This enquiry is motivated by a growing recognition of citizen participation by design disciplines and other disciplines outside of design (such as social science, science and business) in solving complex problems across society. Co-design is the approach that this research focuses on in particular. Co-design is a new field of collaborative practice that has emerged from the Scandinavian tradition of Participatory Design. Integral to the philosophy of both these practices is the decentralisation of the individual expert designer and the empowering of the end user as an active participant. Despite many studies that have provided useful frameworks and insights into the practice of co-design, conceptualisations and discussions around implications for participation and design deployment rarely include the voice of the co-design practitioner. This study uses a descriptive phenomenological approach to explore the experience of practitioners, some trained in design and some not, facilitating co-design practice. Aligned with this approach, detailed interviews were conducted with six practitioners from Australia and New Zealand to understand what is unique or contingent to them personally, situated within their practices. Through a process of detailed and analytic exploration of these six individual descriptions of the phenomenon under investigation, the core constituents of the experience of co-design practice were distinguished for each participant. From these constituents, general structures representing the essences, or invariants common to all experiences under investigation were identified. Based on the careful analysis of the narrative descriptions from the interviewed practitioners, the core aspects of their practice in collaboration with end-user groups and other stakeholders are described. A visual framework is proposed that capture the complexity of their lived experiences of co-design practice.

Statement of authorship

Except where explicit reference is made in the text of the thesis, this thesis contains no material published elsewhere or extracted in whole or in part from a thesis by which I have qualified for or been awarded another degree or diploma. No other persons work has been relied upon or used without due acknowledgement in the main text and bibliography of the thesis.

Signed: _____   Signed: _____

Dated: 9/3/18 _____   Dated : 9/3/18 _____

Chrissie Louise Smith   Dr Kate Brass

Candidate   *Principal Supervisor*

Statement of ethics approval

Approval
Human Research Ethics Committee

Federation
UNIVERSITY • AUSTRALIA

Principal Researcher:	Dr Kate Brass
Other/Student Researcher/s:	Ms Chrissie Smith
School/Section:	**Faculty of Education & Arts**
Project Number:	**B15-083**
Project Title:	The collaborative designer: an investigation into the lived experience of designers in a collaborative creative process
For the period:	5 June 2015 **to** 30/10/2016

Quote the Project No.B15-083 in all correspondence regarding this application.

Please note: Ethics Approval is contingent upon the submission of annual progress reports and a final report upon completion of the project. It is the responsibility of researchers to make a note of the following dates and submit these reports in a timely manner, as reminders may not be sent out. Failure to submit reports will result in your ethics approval lapsing

REPORTS TO HREC:

An annual report for this project must be submitted to the Ethics Officer on:
5 June 2016

A final report for this project must be submitted to the Ethics Officer on:
30 November 2016

These report forms can be found at:
http://federation.edu.au/research-and-innovation/research-support/ethics/human-ethics/human-ethics3

Irene Hall
Ethics Officer
8 March 2018

Acknowledgements

I would like to express my sincere appreciation to my supervisor, Dr Kate Brass for her wisdom, expertise and patience she has shared with me though out this project.

My thanks are also extended to the participants who generously gave up their time to share valuable insights that made this research possible.

I would also like to thank my friends, colleagues and family for their support and interest in my progress. I would like to extend a special thanks to Julie von Platen for the long walks, conversation and support. And finally to my partner Iain Cartwright for his unwavering patience and gentle words of encouragement.

Table of Contents

List of Tables

List of Figures

Chapter One: Introduction

This study seeks to understand the experiences and perceptions of practitioners as they develop their professional practice in the context of co-design. Developed over the past decade, a method of co-designing has emerged, and an interdisciplinary field of co-design research has begun to take shape. Accounts of co-design generally agree that it is a new field of design that has emerged from Northern European participatory practices. Participatory design is often seen as an academic theoretical approach, and those that make references to influences are situated within design, business, social sciences.

The review of contemporary literature as presented in Chapter Two indicates that there are useful frameworks and insights; however, there is much discussion amongst theorists and practitioners about the understanding of the multiple contexts in which these emerging practices function such as culture, usefulness, social responsibility, identity, design education and sustainability (Harder, Burford, and Hoover, 2013). Others argue that there is a lack of a consistent and design-specific disciplinary framework to provide a better understanding of these new design practices (Dykes, Rodgers & Smyth, 2009). Further, Sanders (2006) argues, "researchers and designers are getting into each other's domains and misinterpreting or misapplying the other's methods and tools for design research" (p. 30), indicating a lack of conceptual frameworks that clarify considerations of participation and design deployment. This thesis seeks to address this gap by offering a structure or guide to navigating a co-design process based on a phenomenological investigation of what the experience is like for a co-design practitioner in practice.

This research utilises the theoretical framework of phenomenology, which is a research methodology that is concerned with describing and understanding social phenomena from the perspectives of people who have experienced them directly (Groenewald, 2004). Many researchers use the phrase 'lived experience' as shorthand for such experiences (van Manen, 1997). In this case, the phenomenon being investigated is the emerging collaborative process

known as co-design; the research seeks to explore and describe the lived experience and perspectives of designers engaged in co-design practice. Six co-design practitioners were invited to participate, and interviews were conducted to understand what is unique or contingent to them personally, situated within their practices.

Aims

Informed by contemporary research literature, this research aims to investigate the experiences of the co-design practitioner in the role of collaborator. It explores the framework of co-design as a way of working in consortia that requires a shift from a designer as an expert to that of facilitator or coach. Within this role, facilitators enable participation in a design development process with a collection of stakeholders from multidisciplinary backgrounds.

Key Question

What are the 'lived experiences' of co-designers engaged in their practice?

Research Rationale

My enquiry is motivated by the increasing scope of opportunity for design practitioners. The changes are multifaceted and include: the influences of technology-mediated connectivity both in the expansion of new possibilities and in the contraction of the traditional practices; disciplines other than design, such as science, social science and business taking up broader methods of design particularly within the field of design thinking and innovation; a growing recognition within design practices of the importance of citizen or customer participation in dealing with complex, open-ended or "wicked" collaborative problem solving. Much of current research indicates that in order to address these issues, there is considerable incentive to move to a broader scope of practice within design in general (Lupton, 2003; Fry, 2008; Poyner, 2003; Kimbell, 2011b; Davis, 2008; Buchanan, 1992; Heller, 2002; Brown, 2009). Co-design is an approach that is collaborative, with many different entry points for participation from the designer and by definition includes a wide range of participants. Although an academic and critical enquiry into co-design is not extensive, valuable research has been conducted by Sanders and Stappers (2008, 2012), Sanders (1992, 2002a, 2002b, 2006, 2008), Van de Lugt (2000).

Research in the practice of participatory design has been conducted by Beck (1996), Schuler & Namioka, (1993) who are located within the Scandinavian tradition of participatory design, where co-design originates.

Significance

There is increasing interest from business, government, and industry both nationally and internationally regarding employing design methods that focus on innovation and problem-solving. It is also apparent that, as problems become more complex, the need for diverse perspectives and collaboration increases as evidenced by the notable development in user centred design practices. However, there is much discussion in the literature about the complexity of the environments that these design practices function in and as a result authors claim that conceptual frameworks are required to clarify considerations of participation and design deployment. Although research studies and case studies in co-design, which is the focus of this investigation, are evident in the literature, there is a noticeable lack of research into the experience of what it is like for the practitioner navigating the various situations and contexts in which co-design is practised.

Consequently, the research presented here is significant because it addresses this gap in the literature by including the voice of the co-design practitioner, through a descriptive phenomenological investigation, revealing the nuance and complexities of their practice.

Industry Relevance

Before my current position in design education, I had extensive experience in the design industry. Originally from New Zealand, I studied at the Wanganui School of Design and moved to Melbourne to take up a position with Myer Grace Bros as senior designer. From there I moved to the central highland region to join a talented group of designers and photographers in a commercial studio. My new client list reflected my increasing interest in areas of social change, and I worked with various government organisations on social awareness campaigns. My research enquiry into co-design demonstrates my interest in design and the phenomenological methodology I have applied to this project reflects my interest in people. My motivations for undertaking this

study are to produce new knowledge in the field of co-design and enrich my professional development as a designer and design educator. However, during the course of conducting my research, I remain conscious of any thoughts, feelings, and ideas that arise from to my own experiences in design practice and education, to minimise their influence.

Structure of the Thesis

After this Introductory Chapter, this thesis has five main chapters and a conclusion.

Chapter Two - Literature Review

The first section in the literature review outlines the emergence of co-design practice and its general definition. The second section considers a broader perspective on the changing practices within design disciplines. The third section highlights literature from collaborative design practices that consider different levels of involvement with end-users and other stakeholders and situates them within a landscape of design research methods. The fourth section centres on the application and speculative positioning of design principles to understand the design professionals' particular way of solving problems and approaches to participation. The chapter concludes with providing an in-depth account of attitudes, methods, and functions of co-design practice.

Chapter Three - Theoretical Framework

This chapter explains the theoretical and methodological approaches used in this research project to achieve the stated research aim. More specifically, it identifies the underpinning constructivist epistemology and establishes descriptive phenomenology and descriptive phenomenological analysis, as an appropriate methodology and method for illuminating co-designers' experience of their practice.

Chapter Four - Exhaustive Descriptions of the Phenomena

This chapter presents the exhaustive descriptions of the phenomena under investigation (the experience of designers/facilitators in the collaborative practice of co-design) for each of the six practitioners who were selected and

interviewed in an effort to understand what is unique or contingent to them personally situated within their practices.

Chapter Five - General and Individual Structures

This chapter presents the general findings, including the individual and general structures for the phenomenon of the lived experience of the co-design practitioner.

Chapter Six - Consideration of the Findings

This chapter considers the findings of this research in light of the attitudes, attributes, and functions of co-design accounted for in the literature. These conceptualisations are compared and contrasted with the interpretive themes that emerged in the Individual and General Structures.

Chapter Seven - Conclusion

This chapter concludes by drawing together the findings, theoretical frameworks and application of a descriptive phenomenological methodology to this study. It considers how this particular phenomenological approach when applied to insights of the interviewed practitioners has contributed to the body of knowledge in the co-design field. The strengths and limitations of this research project are also reviewed, and possible areas for future research are identified.

Chapter Two: Literature Review

The review of the literature reveals a broad range of design contributions and collaborations with disciplines outside of design, highlighting the increasing interest from the business and social sectors in dealing with complex networked problems across society. Some theorists claim that design is best placed to lead the way in co-creative practices because of the design professionals' particular way of solving complex problems and the already well-established knowledge base in user-centric participatory practice (Harder, Burford & Hoover, 2013; Dorst, 2015a). In contrast, others argue that design does not do very well with human experience, they advocate for re-entwining design with philosophy and draw on contributions from Heidegger, Ingold, and Derrida (Whent, 2015; Akama & Prendiville, 2013; Steen, 2013). Despite this difference in approach, most agree that due to the speed of emerging practices and the complexity of the environments that these design practices function in, conceptual frameworks are required to clarify and communicate considerations of participation and design deployment (Wieland, Polese, Vargo & Lusch, 2012; Sanders, 2006; Harder, Burford & Hoover, 2013; Dorst, 2015b; Dykes, Rodgers & Smyth, 2009).

Authors suggest that efforts to establish new fields of learning in design, such as co-design, experience design, and service design, require a definition of the field. However, this has proved difficult as the literature consists of contrasting and contradictory definitions of design practices that consider the inclusion and position of the user and other stakeholders differently (Buchanan, 2001b). This literature review focuses on co-design in particular, revealing that there has been much done to define the roles of co-design practitioners and other stakeholders; however, due to the various situations in which co-design is applied, the tools and techniques of co-design are at risk of becoming separated from the underlying philosophies of co-design, leading to misinterpretations of the practice.

The first section of the literature review outlines the emergence of co-design practice and its general definition of practice. The second section considers

a broader perspective on the changing practices within design disciplines. The third section highlights literature from collaborative design practices that consider different levels of involvement with end-users and other stakeholders and situates them within a landscape of design research methods. The fourth section centres on the application and speculative positioning of design principles in order to understand the design professional's particular way of solving problems and approaches to participation. The chapter concludes with an in-depth account of attitudes, methods, and functions of co-design practice.

I also acknowledge the theories and practices of participation from areas and disciplines outside of design, such as social sciences. However in-depth research in these areas is beyond the scope of this thesis.

Participatory Design and the emergence of co-design

Co-design is a relatively new field of collaborative practice that evolved from the participatory design movement of Northern Europe in the late 1960's. "Participatory design was established to increase the value of industrial production by engaging workers in the development of new systems for the workplace" (Sanders & Stappers, 2012, p. 28). It is an approach to a design process that attempts to engage all stakeholders, including those who are not necessarily designers to have input into the design of the technology for new systems (Schuler & Namioka, 1993). There is an explicitly political dimension to participatory design: It aspires to democratise the design process, blurring distinctions between the designer as an expert and the user as expert "… in participatory design the people destined to use the system play a critical role in designing it" (Schuler & Namioka, 1993, p. xi).

Historically, this idea of the role of the participating citizen is not new. Authors agree that ideas of inclusivity and collective practice derive from practices of participation in Greek democracy (Akama & Prendiville, 2013; Whent, 2015; Sanoff, 2011; Ehn, 1993). Sanoff (2011) argues, "community consciousness in the 1960's led to the direct involvement of the public in the definition of their physical environment, and an increased sense of social

responsibility constituted a new movement" (p. 11). Jacucci, Ehn, De Michelis (2008) propose that, "participatory design started from the simple standpoint that those affected by design should have a say in the design process, where the opinions of the minority groups are also sought and taken into consideration when decision making for the majority" (p. 293). This position differs from other user-centric methods such as user-centred design which has been widely practised and developed in product, industrial and web-based design and is typically practised with an 'expert perspective.' Researchers observe and interview passive users to extract opinions about product or service concepts that have already been generated by designers (Sanders & Stappers, 2008).

In addition to the emergence of co-design practice from the participatory design tradition, Sanders and Stappers (2008) observe that advocates of co-design also originate from a business, marketing background. Notable contributors Prahalad and Ramaswamy (2004) propose, "….we are moving toward a world in which value is the result of implicit negotiation between the individual consumer and the firm" (p. 7).

Although co-design has evolved with influences from other user-centric models of design and business (Harder, Burford & Hoover, 2013), there is general agreement that co-design builds on the traditions of participatory design, made distinct by positioning users as experts of their own experience central to the design process (Schuler & Namioka, 1993; Sanders & Stappers, 2008).

The following section provides a general background of where participatory design, user centred design and more recent emerging design practices (including co-design) are applied in a broad range of domains in society, such as the social, educational and business sectors.

The varying contexts of co-design

Disciplines other than design such as science, social science and business have been increasingly taking up broader practices of design, evidenced by

government and industry that are looking to design thinking and innovation practices in the development of new products and services. Although the literature covers a wide range of design applications, the main areas that have emerged are; design practice's contributions to creating value for organizations in the field of business management and innovation (Bruce & Bessant, 2001; Borja de Mozota, 2006; Seidel, 2000; Perks, Cooper & Jones, 2005). Devising solutions in social impact areas, such as health, urban development and climate change (Parker & Parker, 2007; Burns, Cottam, Vanstone & Winhall, 2006). These design applications, delivered in both the business and social sector, usually relate to networks of stakeholders across many organisations all through society (Stacey, Griffin & Shaw, 2000). Dorst (2015a) asserts, "…this need to address such open, complex, dynamic and networked problems in society has led to a keen interest in how expert designers solve problems" (p. 24).

Buchanan (2001b) proposes the framework of four orders of design (Figure 1), he argues that this framework contextualises why design has been getting this attention.

Figure 1:
Four Orders of Design. Adapted from (Buchanan 1992)

Image has been removed at authors request due to copyright restrictions.

Buchanan (2001b) identifies that both the third and the fourth order are now emerging. He states that "The focus is no longer on material systems; systems of "things"; but on human systems, the integration of information, physical artifacts, and interactions in environments of living, working, playing, and learning" (p.12).

In response to the increased interest of design in an international context, the 'Visionary Design Council' was established by Australian Graphic Design Association (AGDA), the professional association of design, to investigate trends in the evolving economy that might impact on emerging designers. These trends include; a) an expanded scope in scale and complexity of design problems, and b) sharing experiences in a co-creation model (Visionary Design Council, 2017). In the social sector, Burns, Cottam, Vanstone, and Winhall (2006) identified that "…designers were uniquely placed, to help solve complex social and economic problems, and the beginning of a new design discipline is emerging from groups around the world" (p.10). These observations were further endorsed by the European Commission (2012) in the 'Design for Growth and Prosperity' report, which highlighted a significant advancement in design thinking and practice adding value to large-scale societal problems.

The 'Review of Australian Higher Education' released by the Australian Government (2008) reported that innovation, creativity, and problem-solving were considered to be amongst the most important of all targeted graduate attributes. Three years later the Australian Government (2011) 'Creative Australia Cultural Policy' recommended embedding design thinking in education and government. This recommendation saw a report funded by the Australian Government and the Office for Learning and Teaching titled Design Thinking Frameworks for Transformative Cross-disciplinary Pedagogy (Anderson et al. 2015). In the education sector, design programs within some universities have seen increases of multi-disciplinary labs, allowing for collaboration and exploration. (Examples include RMIT, The Centre for Art, Society and Transformation, UTS Bachelor of Creative Intelligence and Innovation). Similarly, within industry in Australia and New Zealand, increases in innovative partnerships are emerging, such as Co-lab in Auckland; Centre for innovation in Australia; Design for Social Impact

Conferences; Co-design Studio - design and place-making consultancy, and most recently the Melbourne C2 conference founded by a partnership between 'Cirque Du Soleil' and the 'Sid Lee: Global creative agency'.

Overall, there is clear evidence of the increasing interest from business, government, and industry both nationally and internationally regarding employing design methods that focus on innovation and problem-solving. It is also evident that as problems increase in complexity, there is a need for more diverse perspectives and collaboration that include multiple stakeholders. This need is evident by the increasing amount of emerging multidisciplinary and user centred design practices. In addition, there are increasing examples from education, where universities are beginning to incorporate design hybrid undergraduate and graduate degrees.

Gumienny et al. (2015) claimed, "design thinking has crossed many boundaries and industries, spreading the fundamentals of a designerly approach to areas unfamiliar to traditional design practice" (p. 243). However, despite this observation, there is much discussion amongst theorists and practitioners of how concepts of participation differ amongst these user-centred design-led practices that use generative design methods, and they claim that there is not enough clarification across these diverse traditions of design and other disciplines considering concepts of participation (Harder, Burford & Hoover, 2013: Dykes, Rodgers & Smyth, 2009).

Participation in Collaborative Practice

Sanders and Stappers (2008) locate related design research methods depicting where disciplines overlap (Figure 2). Comparing the two dominant design methods, participatory design, and user-centred design; the design research map situates participatory design in the research and design led quadrants, thus employing a participatory mindset and situates user-centred design in the design or research led quadrants, thus with an expert mindset (Figure 3). Some authors argue that user centred design still operates from an 'expert mindset,' where end users are considered a resource for design

(Brereton & Bur, 2008) Conversely, others argue that user centred design is influenced by more democratic principles of participatory design (Sanders & Stappers, 2008). Although co-design is not situated in the research map (Figure 2) it could be considered to be located in the participatory, design-led quadrant of the map because of its close relationship to participatory design and use of generative tools in design development. The following section reports in more detail on the origins and practices of user centred design.

Figure 2:
Map of design research: Research Types
(Sanders, 'Research types,' 2008, para 9)

Image has been removed at authors request due to copyright restrictions.

Figure 3:
Map of design research: Underlying Dimensions
(Sanders, 'Underlying Dimensions', 2008, para. 6)

Image has been removed at authors request due to copyright restrictions.

User Centred Design

In 1955, industrial designer Henry Dreyfuss published 'Designing for People.'
He was interested in considering users wants and needs in the development
of a product, in contrast to forcing users to change their behaviour to
accommodate what was designed for them. His design methods consisted
of cycles of sketching, prototyping and getting feedback from both users
and experts (Dreyfuss, 1967). In the 1970's and 1980's the American
software industry realised the value of building software to user
requirements; consequently, the term 'User Centred Design' (UCD) was
coined in the early 1980's by Donald Norman (2002), a significant figure in
the development of UCD.

Early UCD approaches to UCD practice adopted a 'researcher as expert' perspective. Users were asked for their opinions about product concepts by way of observation and interviews conducted by trained researchers (Sanders & Stappers, 2008). The early pioneer of UCD Herbert Simon (1969) challenged professional designer's usual roles as the expert. Accepting the contribution of end-users was a new challenge for designers (Taffe, 2012). Krippendorf (2005) argued, "…acknowledgement of the presence of others in the design process replaces the primacy of designer as experts or lone genius whether those others are collaborators from other disciplines project stakeholders or end users" (p. 39).

As a consequence of this shift to more inclusive practice, authors proposed that UCD focus on the human complexity of design (Hanington, 2003; Krippendorf, 2005; Redstrom, 2006). Buchanan (2001a) argues that UCD considers usability whereas HCD affirms human dignity and human rights. In the early part of the 21st century, Hanington (2003), proposed a change in terminology from UCD to human centred design (HCD) to reflect this change of perspective. Krippendorf (2005) argues this current trend in terminology, which emphasises that people are not objects of design, but instead individuals who interact with design, characterise a significant change for the field of design.

Despite this positivity and shift toward HCD in UCD, practitioners continue to question to what extent this more inclusive attitude applies within the wider UCD community. Authors argue that designers had been slow to take up UCD practices even though the practice had emerged in the 1960s. They claim that designers perceive the input from end-users as overvalued and time-consuming. Designers continue to place merit on efficiently getting the design right the first time and typically learn about end-users by reading generic end-user profiles Gould and Lewis (1985).

The previous two sections have outlined the key distinctions that theorists have made on the involvement of the 'user' between Participatory Design and other user-centric models; in particular, user involvement in user centred design where the user is considered an 'information source' for the designer

(Brereton & Bur, 2008. This method of practice is often limited to consulting with 'users' on what works and doesn't work through the design development phase (Norman, 2002). Despite Harrington's (2003) proposal to move toward a more inclusive form of practice, concepts of participation remain mostly academic and not widely incorporated into the general practice of user centred design. In contrast, considerations of participation in participatory design and consequently co-design are consistent in the literature.

Design Development

This section of the literature review now considers the theories of practice that have evolved in design thinking. More specifically it situates co-design within a constructivist epistemology and investigates implications of design thinking practice as it relates to the design development phase of co-design.

Positioning co-design within a constructivist epistemology

The literature on traditional design practice comes from many fields, such as product development (Wheelwright & Clark, 1992), architecture (Alexander, 1971), engineering (Hubka, 1982), communication design (Frascara, 2004) and systems design (Ehn & Lowgren, 1997). The research presented here focuses on how design is applied in the field of co-design and argues that the design application of co-design is constructivist in nature. Feast (2010) identifies several areas of design epistemology, situated within deterministic, constructivist and the artistic or arts-based ways of knowing, he argues that design is located within any of these domains.

Design development, when applied in co-design practice is exploratory and iterative. Members of a co-design group co-evolve problems and solutions together in order to construct meaning (Hatchuel, 2001). During this exploratory enquiry understandings of an issue or problem emerge. Design can be understood, as designers co-creating problems and solutions in an exploratory iterative process in which problems and solutions co-evolve (Cross, 2013; Dorst & Cross, 2001; Buchanan, 1992. This constructivist view contrasts with the deterministic view of design, which is applied in practices

24

(Brereton & Bur, 2008. This method of practice is often limited to consulting with 'users' on what works and doesn't work through the design development phase (Norman, 2002). Despite Harrington's (2003) proposal to move toward a more inclusive form of practice, concepts of participation remain mostly academic and not widely incorporated into the general practice of user centred design. In contrast, considerations of participation in participatory design and consequently co-design are consistent in the literature.

Design Development

This section of the literature review now considers the theories of practice that have evolved in design thinking. More specifically it situates co-design within a constructivist epistemology and investigates implications of design thinking practice as it relates to the design development phase of co-design.

Positioning co-design within a constructivist epistemology

The literature on traditional design practice comes from many fields, such as product development (Wheelwright & Clark, 1992), architecture (Alexander, 1971), engineering (Hubka, 1982), communication design (Frascara, 2004) and systems design (Ehn & Lowgren, 1997). The research presented here focuses on how design is applied in the field of co-design and argues that the design application of co-design is constructivist in nature. Feast (2010) identifies several areas of design epistemology, situated within deterministic, constructivist and the artistic or arts-based ways of knowing, he argues that design is located within any of these domains.

Design development, when applied in co-design practice is exploratory and iterative. Members of a co-design group co-evolve problems and solutions together in order to construct meaning (Hatchuel, 2001). During this exploratory enquiry understandings of an issue or problem emerge. Design can be understood, as designers co-creating problems and solutions in an exploratory iterative process in which problems and solutions co-evolve (Cross, 2013; Dorst & Cross, 2001; Buchanan, 1992. This constructivist view contrasts with the deterministic view of design, which is applied in practices

such as engineering, where engineers design functions in response to constraints (Hubka, 1982) and the problem-solving activity aims to work toward a desired state of affairs determined in advance (Pandza & Thorpe, 2010), or in the arts based way of knowing, where individual responses are highlighted.

The literature clarifies the positioning of co-design as a way of doing design within a constructivist approach due to its iterative nature whereby one constructs meaning throughout a design development process.

Design thinking: participation and design deployment

The process of design thinking involves the co-evolution of a problem and a solution; it is an exploratory enquiry where understandings of an issue or problem emerge. (Cross, 2006, Dorst & Cross, 2001). Buchannan (1992) claims design thinking, as a process, helps solve 'wicked problems' as opposed to a tame problem. These 'wicked' problems are not clearly defined and do not have an obvious solution. In contrast, a tame problem is relatively easily defined and understood (Rittel & Webber, 1984; Buchanan, 1992; Dorst, 2011). "A 'wicked problem' is characterised by its defiance of comprehensive definition, the systemic involvement of multiple forces, it is inherent complexity, and a lack of a clear end state" (Buchannan, 1992, p. 15). Typical examples of wicked problems include global climate change, public health, and natural resource depletion.

Design thinking has become central in contemporary design discourse and rhetoric (Brown, 2009). More recently it is apparent in collaborative engagements concerned with solving complex problems facing society.

However, some design practitioners and researchers are concerned that tools and processes from design fields become separated from each other as a result of commodification and demand for sellable components of design practice (Whent, 2015; Akama & Prendiville, 2013). These concerns are particularly evident in design thinking when the process presents in a series of linear steps. These include; Empathize, Define the problem, Ideate, Prototype and Test (Brown, 2009).

Some authors have compared the difference between techniques and methods of design thinking firstly separated from and then connected to their core principles of practice. Dorst (2015b) argues that when fields outside of design adopt design practices, the techniques and methods are picked up and applied without much thought or significant change, in contrast with adaption, which considers core principles from both fields, and the new context is understood. Johansson-Skoldberg, Woodilla & Cetinkaya (2013) claim that 'design thinking' is a simplified version, best used by people without an academic background in design. In contrast, 'designerly thinking' links the practice of design thinking with its core principles.

An addition, design practitioners and researchers debate designs capacity to consider human experience regarding collaborative participation. Steen (2013) claims the design thinking processes that design professionals engage in are inherently social because the work they do is collaborative and practised within interconnected environments. Telier et al. (2011), extends on Schön's (1987) practice of the reflective designer; as one who is aware of the complexity of his or her practice, to include the interactions between people. The position of the reflective designer then shifts to a practitioner who can collaborate and interact with people from diverse backgrounds in the design development process.

Theorists and practitioners claim that design already has a well-developed knowledge base around participation practices (Harder, Burford & Hoover, 2013; Steen, 2013). However, Whent (2015) argues that design thinking processes lack a rigorous approach to studying human experience. Others continue to build upon considering human experience more inclusively within design development by incorporating practices from other research fields outside of design. For example, Whent (2015) proposes that "complex or wicked problems call for the most holistic of design approaches, there is an experiential aspect that is missing in most design theory that can be explained by phenomenology" (p. 61). Kouprie and Sleeswijk Visser (2009) claim, there is a lack of definitions and frameworks in design that consider

the inclusion of 'empathy' and as a result, they draw from psychology to inform their practice.

These issues raised by practitioners and theorists of design thinking practice have implications for other co-creative practices that use generative tools. For example, Steen (2013) argues, "…that despite the increasing prominence of co-design as a strategy, academic and critical enquiry receives little attention, the situation may be due to the popularity of labelling projects as co-design and the conceptual dilution or confusion that results" (p. 16).

This section has identified that design development when applied in co-design practice is collaborative, exploratory and iterative, in contrast to individualistic arts-based creative practice or the deterministic view of design. Further designers share a kind of 'design thinking' where they use visual methods to investigate and generate ideas when engaging stakeholders and potential users. Finally, this section has highlighted discussions from design practitioners and researchers that have implications for both design thinking and co-design practice in areas of participation and design deployment.

Frameworks of co-creation and co-design

Within the literature, the terms co-design and co-creation are often confused and treated synonymously with one another in design development (Sanders & Stappers, 2008). Mattlemaki & Sleeswijk Visser's (2011) investigation of the literature concluded that both terms are often used interchangeably, describing a range of creative methods that involve various stakeholders' input. Sanders and Stappers (2008) define co-creation in broad terms "…any act of collectively shared between two or more people, with applications ranging from the physical to the metaphysical and the material to the spiritual" (p. 16). In contrast to Mattlemaki & Sleeswijk Visser's (2011), Sanders and Stappers (2008) specifically identify co-design as an instance of co-creation (Figure 4) where the creativity of designers and people not trained in design are working together in the design development process.

Figure 4:
Co-design as an instance of co-creation

Co-creation

Human centered design

Participitory design
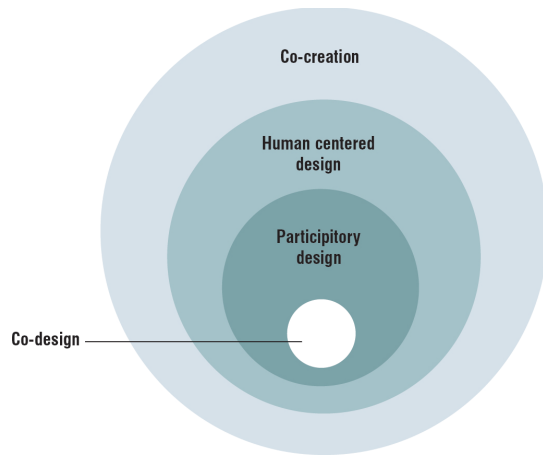
Co-design

Activities of co-creation are typically located in the fuzzy front end of the design development cycle (Figure 5), in the pre-design and pre-discovery phase where problems are too complex for individuals to solve and require a range of diverse perspectives (Sanders & Stappers, 2008).

Figure 5:
Fuzzy front end of design (Sanders & Stappers, 2008, p.6).

Image has been removed at authors request due to copyright restrictions.

Problem-solving in this context is approached with open-ended questions and considers 'what might be' in contrast to 'what is wrong'; this has been

identified (Peirce, 1958), as an 'abductive' type of reasoning (Table 1). Peirce (1958), identifies different types of reasoning involved in design development processes; "deduction proves that something must be; induction shows that something is operative; abduction merely suggests that something may be" (p. 171).

Table 1:
Reasoning processes (Sanders & Stappers, 2012, p. 60).

Image has been removed at authors request due to copyright restrictions.

Although authors identify all three modes of reasoning as useful in design development, abduction has been identified as the core of design thinking and most often used where problems and solutions are complex and require open-ended enquiry and a wide range of perspectives (Cross, 1982; Dorst, 2011).

This section of the literature review draws strongly from the extensive works on co-design of Elizabeth Sanders and Pieter Jan Stappers, seminal practitioners and researchers, who have developed generative design activities over the past 20 years, with the addition of more recent literature from researches and practitioners. Existing frameworks that describe the holistic and integrated practice of co-creation and co-design are as follows in figures 6 and 7.

Figure 6:
Mindsets, Methods and Tools of co-creative activity.
Adapted from (Sanders & Stappers 2008)

These models outline stages in co-creative activity within the design development process. It is worth noting that although they prove to be useful frameworks, these categories can be interrelated and fluid in practice. Sanders & Stappers (2008) claim that co-creation takes place at any point along the design development process. However, they identify a pattern when different types of value align with different stages in the design development process (Figure 6). "Value co-creation with a financial objective is more likely to take place later in the design development process such as in marketing, sales, and distribution. Value co-creation in use/ experience tends to take place during design, and societal value co-creation is most likely to occur in the early stages of the front end of the design process" (Sanders & Stappers, 2008, p. 27).

Co-creation as a mindset: aligned with societal values:

Establishes a set of attitudes or a world-view or a philosophy of practice, it is the broadest and most long range, best used at the front end of the design

development phase in pre-design and discover. This mindset is typical practice in challenging environments (Sanders & Stappers, 2008)

Co-creation as a method: aligned with use/experience values:

Used mainly in the design exploration phase, co-creation as a method has similarities to other data collection methods such as ethnography. The choice of method can depend on who is responsible for leading the project. Co-creation as a method, used in the exploratory and making phase of design typically applies in disciplines that consider the experience of the user (Sanders & Stappers, 2008).

Co-creation as tools and techniques: aligned with monetary values:

The range of generative tools used in design development, often used in the marketing and sales of products and services (Sanders & Stappers, 2008).

While Sanders and Stappers (2008) model is applied in general to co-creative activity, Burkett's (2016) model (Figure 7) outlines attitudes, attributes and functions of co-design applied more especially in the social sector. Burkett (2016), works extensively on transforming organisations and has identified co-design as literally meaning, collaboratively designing services, products or processes. She emphasises that "…participation of the people involved varies, and clarifies that it can be a collaborative design process between service providers and service users; it can also apply to collaborations between designers, service providers, and service users" (Burkett, 2016, p. 3).

Figure 7:
Summary of attitudes, attributes and functions of co-design applied in the social sector. Adapted from (Burkett, 2016)

Image has been removed at the request of the author due to copyright restrictions.

Participant roles in co-design practice

As outlined earlier, an integral aspect of co-design is the role of the designer changing from preparing and presenting design solutions to facilitating co-design processes that engage various stakeholders actively in the design process. As a consequence, both the client and consultant or designers give up full control of the designed outcomes. Instead, the ownership is shared amongst participants. The illustrations below show examples of the roles of user, researcher, and designer in tradition user centred design practice in contrast to the interactive roles in co-design (Figure 8).

Figure 8:
Comparison of roles. Adapted from (Sanders & Stappers, 2008)

Image has been removed at the request of the author due to copyright restrictions.

Sanders and Westerlund (2011), identify a series of practical aspects that co-design facilitators consider when setting up a co-design session:

- **Preparation:** recruiting participants, providing warm-up activities, preparing materials for idea generation.
- **Facilitation of the event:** agenda, the role of the facilitator, choosing which tools and techniques to use
- **Documentation and visualisation:** How will the outputs from the sessions be displayed and how will the event be recorded.
- **Reflection on the co-design process:** Who determines what the outcome means, How does one know if it was successful or unsuccessful, what are collective and individual outcomes.

This section has outlined the underpinning core principles or the mindset or attitude of co-design, including the roles of participants within a co-design group. The next section considers concepts of creativity when applied in co-design development.

Creativity in co-design practice

Creativity is considered a key component in innovation and design development and considers how end users and other stakeholders who may or may not come from design or creative backgrounds are enabled to be actively involved in making creative contributions to a collaborative design process. In this situation the facilitator's role is about guiding, leading, providing scaffolds and clean slates that encourage people to participate at all levels of creativity in contrast to offering expert design advice (Sanders and Stappers, 2008).

A central claim of co-design is that all people are creative and can contribute to design if provided with the appropriate tools and settings (Sanders & Stappers, 2008; Mattlemaki & Sleejwifk Visser, 2011). However, Sanders & Westerlund (2011) identify potential problematic situations in design processes where the novice designers who are participating may not feel that they are creative.

This separation of creativity as a 'special talent' or 'innate human ability' has been an argument that dates back over 200 years in western society (Sawyer, 2012). In the early pre Renaissance period, rationalist ideas were prevalent, and groups of artists worked together in a conscious and deliberate process to complete artworks (Becker, 2001). In contrast, ideas and concepts of creativity as an individual artistic pursuit emerged with the Romantics (Engell, 1981). They valued imagination over mastery of traditional practice and believed that rational deliberation would destroy the creative impulse (Abrams, 1953). For the first time poetry, visual arts and music were grouped as fine arts, and the term 'creative' was applied to artists (Sawyer, 2012).

This debate has continued amongst philosophers and social scientists. Philosophers Croce & Collingwood propose the 'Idealist theory; they argued the moment of 'insight' is where the creative work is done (cited in Kemp 2003). The Action theorists countered this view; they argued that the execution of the creative work through an iterative process of making and

reflection is essential to the creative process (Finke, 1995; Finke, Ward & Smith, 1992). Within social sciences, in the early part of the 20th-century research creativity was represented as an individual function of behaviour, personality or cognitive processes (Sawyer, 2012). However, in the 1960's and 1970's new ideas in cognitive psychology challenged these assumptions. Psychologist's studies into cognitive processes suggested that differing levels of creativity exist amongst individuals (Feldman, Gardner & Csikszentmihalyi, 1994). Maslow's seminal work, 'The Creative Attitude,' represented creativity as a universal birthright for all self-actualising human beings and something that anyone can achieve (Maslow, 1963). De Bono (1977) considered the essence of creative thinking as available to all and wrote extensively on creative thinking skills and techniques.

Even though concepts of western Romanticism continue to perpetuate the idea of creativity as a 'moment of insight' there is much evidence to suggest otherwise. Studies from authors show there is a consensus from cognitive psychology that creativity is not a single mental process; it results from many mental processes (Feldman, Gardner & Csikszentmihalyi, 1994, p. 87).

Sanders & Stappers (2008) claim, "…when we acknowledge different levels of creativity exist for different people we can develop and offer relevant experiences to facilitate peoples creative expression at all levels" (p. 11). In order to understand the creative involvement of people involved in a creative process Sanders and Stappers (2012) propose four levels of creative involvement: doing, adapting, making and creating (Table 2). These four levels vary in the amount of expertise and interest needed by the user, or people participating.

Table 2:
Four Levels of Creativity (Sanders and Stappers, 2012, p. 39)

Image has been removed at the request of the author due to copyright restrictions.

Sanders and Stappers (2008) clarify that "users" can play co-creating roles throughout the design process. It depends on the expertise, passion, and creativity of the user. As a consequence, they make a distinction that " …all people are creative, but not all of them are designers," their participation would vary according to the level that they (the participants) felt able to engage (Sanders & Stappers 2008, p 8). Fischer (2002) also identified a continuum of creative involvement by the end-user ranging from passive consumer, to the active consumer, to the power user, to domain designers, all the way through to meta-designers.

In order to encourage participation, the framework of 'four levels of creativity' provides direction in the development of design tools for collaborative interaction and a framework for facilitators making decisions about what design tools to employ.

The methods, tools, and techniques of co-design

Regarding co-creative activities or methods and tools and techniques that take place between designers and users undertaking a co-design project, Park (2012) identifies the following two implications of practice concerning the methods and tools and techniques of practice:

1. Definition of Methods: The generation of collaborative communication between the designer, end-user and other stakeholders within the co-design project group. (Park, 2012, p. 88)

Methods applied in co-design require all participants to communicate with each other collaboratively throughout the whole co-design process (Chesbrough, 2003). Schön (1983) propose that design can be like a form of conversation in which design issues are negotiated between design and stakeholder, which facilitates the collective learning of required objectives through an iterative process of negotiation and mutual understanding (Park, 2012). Burkett (2016) identifies the methods or attributes of co-design as person-centred, using ethnographic methods to understand the experience of a service from the user's point of view and to use those experiences as a basis for creating change.

Further, concerning ethnographic forms of research, co-design claims that methods beyond interviews and observation are required. Co-design research seeks to understand the 'lived experience' of users. While methods such as interviews and observations give access to the explicit and observable, generative methods allow access to the tacit and implicit aspects of people's lives (Sleeswijk Visser, 2009). Other authors agree that the emphasis is on gaining insights and exploring possibilities with people participating in the co-design process, rather than collecting specific data or evaluating or validating specific user requirements (Hanington, 2003; Krippendorf, 2005; Sanders, 2006).

Co-design recognises that often experience and knowledge is tacit and embedded in the every day, "…owing to the ultimately tacit character of all our knowledge, we remain ever unable to say all that we know, so also in view of the tacit character of meaning we can never quite know what is implied in what we say" (Polanyi, 1962, p. 95). At the beginning of a design process facilitators work with users to understand the design project in relation to their everyday lives, habits, dreams, and rituals. Co-design methods create a platform for user involvement to occur by making people's everyday experience or 'tacit' knowledge available to use as resources in

design (Sanders, 2000), but in order for that to happen these experiences must be made assessable. "The co-design process can unlock tacit knowledge embedded in everyday experience and engagement with drawing and making, acts as material, that makes social relations possible" (Nafus and Anderson 2010, p. 202).

2. Definition of Tools and techniques: The participatory ideation process whereby the designer conceptualises user needs with the user participation (Park, 2012, p. 88).

Wide ranges of tools and techniques or generative tools are available to support the co-design process and support participants to access and articulate their everyday life experiences. Examples of these include visual tools such as user personas, storyboards and journey maps. Potential solutions are tested through prototyping techniques using these tools. Co-design facilitators use these tools to act as prompts to help participants explore, imagine and verbalise aspects of their everyday lives, feelings and experiences. Creating work collaboratively, in a face-to-face studio environment builds trust and sharing between participants (Hagan & Roland, 2011). Sanders (2008) emphasises the importance of physically interacting with materials, cutting, gluing, building and moving around in the idea generation and reflection phase of a co-design project.

According to Erkisen (2012) "…there is a special kind of collaborative materialising taking place when co-designing in groups where the dialogue with the material is often intense and can be surprising …this materialisation is giving form to ideas, details, proposals, issues, and questions" (p. 234). Co-design's central purpose is to use the design process to imagine future possibilities (Gunn and Donovan, 2012). "This act of transformation is a co-created process, not just between people, but a co-creation that interweaves the specificities and materiality of the place in which designing is taking place. We are constantly 'being' and 'becoming' through this transformative act" (Prendiville & Akama, 2012, p.4).

In addition to designers taking on new roles as facilitators, Sanders & Stappers (2012) claim that future jobs for designers will be making and designing tools for non-designers to express themselves creatively. Recent examples are 'Design Games' (Vaajakallio & Matrtlimaki, 2012) "a playful games bases framework that engages designers and non-designers alike, in sharing past experiences and envisioning future ones" (Sanders & Stappers, 2012 p. 64). Similarly the 'Path of Expression' is a framework created to enable exploration and understanding of memories, present experiences and future dreams (Sanders & Stappers, 2012).

Conclusion

The literature has shown that co-design practice has a solid theoretical foundation that has evolved from the underpinning principles of participatory design. In addition, it has revealed useful frameworks that support collaborative communication and participation and which are integral to the co-design process. However, it has also brought to light discussions, and theories amongst authors concerning a number of issues in the broader user centred design field, which includes:

- The lack of frameworks that clarify considerations of participation in the varying contexts and situations that design processes are deployed.

- Designs position regarding research rigour of the inclusion of human experience.

- Misapplication of design methods and tools when they are separated from underpinning theories of design practice.

Despite useful frameworks in co-design and discussions from authors in the broader design field that have emerged from this review, there is little evidence of the inclusion of research into the experience of the co-design practitioner to better understand these issues.

Chapter Three: Theoretical Framework

Overview

This research aimed to investigate the 'lived experience' of co-design practitioners to better understand their role in the various contexts and situations within co-design practice. This chapter explains the theoretical and methodological approaches used in this research project to achieve the stated research aim. More specifically, it identifies the underpinning constructivist epistemology and establishes descriptive phenomenology and descriptive phenomenological analysis, as an appropriate methodology and method for illuminating co-designers experience of their practice.

Epistemology

Crotty (1998) frames the research process in terms of epistemologies theoretical frameworks, methodologies, and methods. His frameworks are arranged hierarchically, and different methods are contained within three main epistemological approaches: objectivism, constructivism, and subjectivism. "Each of these epistemologies contains assumptions about gaining knowledge of the world we live in, and these assumptions are embedded in different methods" (Crotty,1998, p.8). Constructivism asserts that in the act of knowing, it is the human mind that actively gives meaning and order to the reality to which it is responding (Balbi, 2008). Truth and meaning do not exist in some external world but are created by the subjects' interactions with the world (Raskin, 2002). "In this understanding of knowledge, it is clear that different people construct meanings in different ways, even concerning the same phenomenon" (Crotty, 1998, p. 9). With professional practice in the co-design field, the design practitioner has to face and deal with messy, problematic situations (Schön, 1983). The process the designer employs is an exploratory and iterative process through actions of thinking, making and reflection problems and solutions co-evolve (Cross, 1982; Buchanan, 1992).

In the context of this research into the experience of the co-design practitioner, the constructivist model is considered to be the most appropriate epistemology as it acknowledges the importance of the dynamics of meaning-making between people and the practices and processes that occur in the process of designing (Cross, 2013). Further, it acknowledges that 'meaning' is constructed not 'discovered' so participants construct their meaning in different ways, even about the same phenomenon: Hence, "multiple, contradictory but equally valid accounts of the world can exist" (Gray, 2014, p 20). The constructivist view, in contrast to the positivist paradigm, asserts that reality is ordered, rational and logical. Positivism argues that reality exists external to the researcher and must be investigated through the rigorous process of scientific enquiry (Chia & Tsoukas, 2002). Crotty (1998) points out that it implies that the results of the research will tend to be presented as objective facts and established truths. Therefore, this logical and scientific view has produced reductive models insufficient to explain design (Cross, 2013). Overall, informed by contemporary literature, a constructivist approach underpins this research.

Phenomenology as a methodology in general

While other kinds of constructivist-based studies, such as case studies, have proved useful in describing the practice of co-design, they do not reflect, in depth, how practitioners give meaning to their work. This research is a method embedded within the methodology of phenomenology, which is one of the critical methodologies underpinned by a constructivist epistemological approach. The roots of phenomenology derive from early philosophers such as Plato, Socrates, and Aristotle, who have struggled to understand phenomena (Fochtman, 2008). Phenomenology emerged from the early 20th century philosophical traditions, primarily influenced by Edmund Husserl (descriptive) and Martin Heidegger (interpretive). Husserl aimed to establish a rigorous and unbiased approach in order to arrive at an essential understanding of human consciousness and experience (Fochtman, 2008; Lopez & Willis 2004). According to Van Manan (1990) phenomenology aims to gain a deeper understanding of the meaning of people's everyday experiences. Rather than develop theories, phenomenological research provides insight into people's realities, so we feel closer to their experiences. Questions asked by

phenomenological researchers may be asked in a particular way: What is this kind of experience like? (Van Manan, 1990), or what is the essence of this phenomenon as experienced by those who experience it? (Polit & Beck, 2008). Gray (2014) argues, "phenomenology holds that any attempt to understand social reality has to be grounded in people's experiences of that social reality. Hence phenomenology insists that we must lay aside our general understanding of phenomena and revisit our immediate experience of them in order that new meaning may emerge" (p. 24).

Although the aim of this thesis is to investigate the direct experiences of co-design practitioners through a descriptive phenomenological research study, it is worth noting that there is a philosophical component of phenomenology that is reflected in in the way in which the co-design practitioners work. For example, generative design methods are orientated toward a phenomenological attitude. This attitude is concerned with understanding people holistically within these human centred design approaches (Sanders, 2008). When co-design practitioners work collaboratively with users and other stakeholder their aim is not to apply a phenomenology study specifically, instead, it can be seen as something that can be practised and identified as a manner and style of thinking (Priest, 2002).

Phenomenology is therefore aligned with the aim of this thesis, as it investigates the phenomenon of the direct experience of the professional practitioner undertaking a co-design practice.

Descriptive Phenomenology

The phenomenological approach provides a rich and complete description of human experiences and meanings, which is done by collecting data from individuals who have lived through those experiences, often referred to as the 'lived experience.' There are several strands of phenomenological methodologies and methods; the two most prominent are, interpretive and descriptive. The interpretive phenomenological approach derives from the works of Heidegger (1927/1962) where the emphasis is on interpreting or attempting to explain what is happening in the phenomena under investigation (Carpenter, 2007). The descriptive phenomenology approach is based on

philosophies of Husserl and Merleau-Ponty. This method aims to produce accurate descriptions of human experience (von Eckartsburg, 1998). Although these approaches differ, both their data analysis methods use systematic and rigorous processes (Crotty, 1998).

One of the essential distinctions of Husserlian phenomenology is bracketing. Gearing (2004) identifies bracketing as an integral consideration, whereby the researcher declares personal biases, assumptions, and presuppositions and puts them aside. To do this, "the researcher breaks away from their own 'natural attitude,' as this practice, in particular, distinguishes phenomenology from other research approaches that explore experience and subjectivity" (Finlay, 2014, p. 122). Natural attitude is considered as the taken for granted, everyday world. In contrast when the phenomenological attitude is adopted, these habitual, taken for granted understandings are bracketed, also referred to by Husserl as reduction or epoche. Bracketing is a disciplined approach that consists of holding past knowledge and experience in abeyance. Thus "theory, explanation, judgments and the researcher's previous experience and beliefs are temporarily pushed aside to probe the "is-ness of the phenomenon further" (Finlay, 2014 p. 123).

This descriptive approach is appropriate for achieving the aims of this research project. It rigorously investigates the data and provides accurate and rich descriptions of the lived experience of a co-design practitioner engaged in their practice.

The research process

This section re-iterates my research aims and describes the preliminary approach, participant selection, recruitment strategy, and data collection through interviews, application of descriptive phenomenological analysis and how research rigour is addressed.

This research project focuses on the experiences of co-design practitioners. It utilises the theoretical framework of descriptive phenomenology, a research methodology concerned with describing and understanding social phenomena

from the perspectives of people who have experienced them directly (Groenewald, 2004). In this case, the phenomenon being investigated is the emerging collaborative process known as co-design. The research seeks to explore and describe the lived experience and perspectives of designers engaged in co-design practice.

Participant Selection - Criteria for participation

As the research aim is to investigate the lived experience of a co-design practitioner, the criterion for participant selection consisted of professionals working within the field of co-design practice who worked in Australia or New Zealand.

Informed Consent

Consent was obtained using the Plain Language Information Statements (PLIS), which was emailed out to practitioners, along with a full list of questions that may be asked during the interview. Upon arrival at the interview location and after a preliminary general conversation, I gave a further explanation of the PLIS. Before the interview commenced, the practitioner being interviewed gave recorded verbal consent. (See Appendix A).

Ethical considerations and approval

Ethical approval for this research was obtained from the Human Research Ethics Committee (HREC), Federation University of Australia. See approval letter attached on page iv. This sample group was considered to be low risk because there was no pre-existing dependant or unequal relationships between my self and potential participants.

Privacy, Confidentiality, Anonymity

In order to protect their privacy, all subjects have been given pseudonyms by the researcher.

Privacy, confidentiality, and anonymity were protected through the appropriate collection, handling, and storage of data. Transcripts were only available to the researcher and supervisory team. Data, including interview recordings and electronic transcripts, are stored on a computer that is password locked. This data will be securely stored for an appropriate period following the completion of the research project**.**

Recruitment Process

In phenomenological research, sufficient data needs to be collected to assure that most issues central to the study are uncovered, but not big enough so that it becomes repetitive (Creswell, 2013). Sample sizes in descriptive phenomenology are reasonably small; usually around five or six participants (Langdrige, 2007). Selection is based on 'information rich' descriptions from which one can learn as much as possible about issues central to the purpose of this research (Groenewald, 2004). In this project, interviews from six practitioners gave sufficient data to capture the essential descriptions of what is unique or contingent to them personally situated within their practices.

Recruitment Strategy

I choose to use purposive sampling to identify the primary participants, considered by Welman & Kruger (1999) as the most important non-probability sampling, based on my judgment and the purpose of the research (Babbie, 1995). To this end, I sought out people who "have had experiences relating to the phenomenon to be researched" (Kruger, 1988 p.150).

Initially, I used Internet searches to seek out established practitioners and researchers working on co-design projects. I followed this up with telephone contact. In addition, I used snowball sampling. This type of sampling is a method of expanding the possible participant list by asking the contacted participants to make recommendations for others to interview (Babbie, 1995). Bailey (1996) cautions that the snowballing method of gathering participants may isolate the researcher from potential participants. However, this proved to be an effective method as the co-design field is specialised and most researchers or practitioners are working in this area know, or know of, others in the field.

In addition, I attended a conference specific to the research area and asked speakers from the conference, not yet known to me, to participate in my research using Plain Language Information Statements (PLIS), as previously discussed. The response from the people approached was positive, and most were willing. However out of the ten asked, just three full interviews resulted from that particular recruitment process.

Participant backgrounds

As experiences of co-design practitioners interviewed vary in the scope of how they apply co-design practices, the following gives an overview of where their professional practice is situated and the types of end-user groups with whom they work. This list is representational, done at the time of the interviews and some employment situations may have changed. Its purpose is to give a snapshot of the variation of educational and employment backgrounds and current practice of the practitioners.

Marcus: Council employee
Job Title: Community Engagement Manager within the practice of Customer Experience Design/ Service Designer
Role: Design Coaching and Facilitating
Education: Law
Background: Environmental Lawyer; Local government complaint investigator; Community engagement officer; Service designer

Sarah: Self-employed Consultant
Job Title: Design Strategist and Co-design Coach
Role: Design Coaching
Educational Background: Graphic Design
Employment Background: Graphic Design; Co-design or Participatory Design; Independent contractor in the health and social sector

Conner: Self-proprietor of a Design Company
Job Title: Director, Customer Experience Designer
Role: Specializes in Interaction Design
Education: Social Sciences
Background: Self-trained in service design and human centred design

Joanna: Employee - Government funded experimental project into innovative approaches to complex social issues
Job Title: Manager in Co-design
Role: Design Coaching
Education: Law

Background: Corporate and Family Lawyer; Market researcher; Ethnographic research; Specialist in design thinking; Co-design practitioner

Helen – Self-employed consultant

Job Title: Project Manager in Co-design

Role: Works directly with end-user groups in the health sector, patients and families

Education: Social Work, Masters in Creative Writing

Background: Social Worker in care protection, social policy, and health sectors> Experience Based Co-design

Oliver

Current Job Title: Service Designer

Current Role: Customer experience designer

Education: Psychology and English

Background: Qualitative research; design researcher; Self-trained service designer

Interviews

The specific phenomena I was investigating, and consequently, my central research question was: what are the experiences and perspectives of designers in the creative, collaborative processes of co-design? However, Kvale (1996) makes a distinction between the research question and the interview question, cautioning that the researcher must allow the data to emerge and that using descriptive phenomenological methods means capturing rich descriptions of phenomena and their settings. For this reason, the following is an example of an interview question put to participants: Can you describe in your own words how you experience your role/s within the co-design process?

The interviews were conducted, and audio recorded individually, using-semi structured questions. These were done mainly face to face however in two instances, due to geographical distance, phone interviews sufficed. I used the interview questions as the skeleton for the interview but at times did not keep to the original order or wording. This method fits with what Crotty, (1998)

describes as "guided and semi-structured." Using it allowed me to follow the direction the interview was taking and to probe further to get the interviewee to expand his/her answers (Gray, 2014). "Questions are generally broad and open-ended so that the subject has sufficient opportunity to express his or her viewpoint extensively" (Giorgi, 1997, p. 245). The interview was reciprocal, with both the researcher and the interviewee were engaged in the dialogue. My experience was that the number of questions asked and the duration of the interviews varied from one participant to the other. (See Appendix B).

Colaizzi's seven stages of phenomenological data analysis

As I am a novice researcher in phenomenology, I considered Colaizzi's (1978) method most useful as it provides both a rigorous and systematic method of investigating phenomenological data and is an appropriate methodological fit for my chosen area of research. The following outlines and demonstrates how I have applied Colaizzi's (1978) framework in investigating the lived experience and perspectives of designers engaged in co-design practice.

Step 1: Acquiring a sense of each transcript

Step 2: Extracting Significant Statements

Step 3: Formulation of Meaning

Step 4: Organising formulated meanings into clusters of themes

Step 5: Exhaustively describing the investigated phenomenon

Step 6: Describing the fundamental structure of the phenomenon

Step 7: Returning to the participants

Step 1: Acquiring a sense of each transcript

Phenomenology strives to capture the 'essence' of an individual's experience (Moustakas, 1994). Colaizzi (1978) advocates for the researcher to read the transcripts many times to get a holistic understanding of the participant's experience. Moustakas (1994) also suggest listening to the audio recordings a number of times. Researchers are developing a complex picture of the problem, identifying the multiple perspectives and factors involved in a situation, creating an overall picture from the data given (Creswell, 2013). To gain a sense of each participants experience I listened to the audio repeatedly. This process allowed me to dwell in the data, listen to intonations, pauses, and

emphasis in responding to questions. The interviews were manually transcribed which allowed me to become immersed in, and attuned to the data. Phenomenological reduction is integral to the research process; this involves bracketing out the researches own experience to avoid bias (Creswell, 2013, p. 78). The researcher attempts to 'bracket' presuppositions and biases to hold them in consciousness through all phases of the research and minimise their influence on the findings. Also referred to breaking away from one's own 'natural attitude,' which is considered to be the 'taken for granted,' everyday world. "This practice, in particular, distinguishes phenomenology from other research approaches that explore experience and subjectivity" (Finlay, 2014, p. 122). During this stage, any thoughts, feelings, and ideas that arose, due to my own experiences in design practice and education were added to a bracketing diary. My assumptions that I brought consciously to mind were: would co-design provide a structure to learn collaborative techniques in education and would I find a new and enriched direction for my work though investigating this process.

Step 2: Extracting Significant Statements

Phenomenology initially deals with unstructured data that undergoes continuous refinement in order to crystallise central themes. Careful techniques are used to keep the descriptions as faithful as possible to the experiential raw data (Giorgi, 1997). As the transcripts can be long the identification of parts that make up the whole experience helps with the investigation. They are called meaning units and in themselves carry no theoretical weight (Giorgi, 1997) To begin the process Giorgi (2009) recommends rereading the transcripts to begin the process of identifying meaning units. I re-read the transcripts and when I sensed a significant difference in meaning (Giorgi, 2009) I marked the place that I perceived that shift in meaning had occurred and continued to read, repeating this action for all of the transcripts. Once the identification of the meaning units was complete, I chose to cut out each of the statements manually to enhance my continued immersion into the data and pasted them onto a separate sheet along with the participant's name, page, and line number. This process of re-reading and selecting a way of organising the data helped me identify primary themes. From the six transcripts, 165 significant

statements were extracted. These were cross-checked with my supervisor to validate my approach and findings.

Once I had extracted the statements, I left them alone for a time, being conscious not to think about them during this period. I aimed to return to them with a fresh approach, further considering the process of phenomenological reduction.

Step 3: Formulation of Meaning

In this stage, I attempt to formulate distilled meaning of the text from each significant statement (Colaizzi, 1978). While keeping in mind the importance of bracketing out my own experiences concerning the investigated phenomenon to avoid bias (Creswell, 2013, p. 78). Each significant statement relating to the description and experience of the co-designers practice was studied carefully to get a sense of the meaning. Questions I asked myself were; what is the meaning of this statement? What does it tell me about their practice? (Van Manan, 1990). The example provided (Table 3) demonstrates how a statement regarding an aspect of the participant's practice is formulated into a more specific meaning.

Table 3.
Example of the process of creating formulated statements from significant statements.

Significant Statements	Formulated Meanings
I don't know whether with the best facilitation in the world and the best scaffolding and set up that there would not still have been a fundamental barrier that limited the value of what we did. The kids were not mentally in the right place.	Conner questions whether improved facilitation and scaffolding of the co-design process would have been enough to break through the barrier that was holding the students back from participating creatively.

Step 4: Organising formulated meanings into clusters of themes

Once I had all of the formulated meanings taken from the significant statements, I used an iterative process to place them into initial themes clusters (Table 4). I cut out the significant statements and used removable adhesive to stick them onto another sheet of paper so that they could be organised in different ways. It was a time-intensive process of placement and reflection, often leaving them for a time so that I could return to them refreshed. Seven theme clusters emerged on the phenomenological experience of co-designers in their practice. Many times during this process, I consulted with my supervisor for further clarification to ensure that the relationship between the significant statements and theme clusters were clearly and accurately described.

Table 4:
Emergent Themes

1. Decentralising the 'Expert'
2. Emphasising Relationships
3. Allowing Participation
4. Selecting Modes of Interaction
5. Navigating Ambiguity and Dissonance
6. The Transformative Experience
7. Working with the whole environment, constraints, and opportunities

Step 5: Exhaustively describing the investigated phenomenon

In this stage of the investigation, an exhaustive description of the phenomenon is required (Colaizzi, 1978). In relation to my research study, the exhaustive description was presented as a narrative account, containing dimensions of the lived experience of the professional co-design practitioner undertaking their practice. This narrative account was achieved by including the emergent themes, theme clusters, and formulated meanings into the continuous writing of the experience. Finally, the exhaustive descriptions were returned to my supervisor for validation. These findings are presented in full in Chapter Four.

Step 6: Describing the fundamental structure of the phenomenon

Because of the length of all of the exhaustive descriptions, Colaizzi (1978) promotes that they should be reduced to essential structures. Polkinghorne (1989) asks, "Does the general structural description provide an accurate portrait of the common features and structural connections that are manifest in the examples collected" (p. 57). The general and individual structures are presented in full in Chapter Five.

Step 7: Returning to the participants

Holloway and Wheeler (1996) advocate for the researcher to take the exhaustive descriptions back to the interviewed participants for comment. In contrast to the general structures, the exhaustive descriptions can appear more recognisable, ensuring rigour in the process. With this research study, the exhaustive descriptions were read over by my supervisor and sent out to all interviewed participants for further review asking them if they wished to add or delete any of the content. Out of the six transcripts sent out three responded, and two sent back some changes. These changes have been incorporated into the continuous descriptions; the feedback consisted only of clarifications about the points made, rather than any new insights.

Research rigour

Polkinghorne (1989) proposes that issues of validity focus on the trustworthiness of the findings. This thesis presents a careful application of principles of descriptive phenomenology by following Colaizzi's (1978) seven-stage method. It provided a rigorous and systematic method of investigating this phenomenological data. Also, I was conscious to bracket my presuppositions and biases through all phases of the research and minimise their influence on the findings, with particular attention to influences from my professional background. Finally, the exhaustive descriptions were read over by my supervisor and returned to all interviewed participants for further review and validation.

Conclusion

This chapter has described the application of the descriptive phenomenological method of data collection and investigation to the practitioner's experiences in various aspects of their practice. Colaizzi's (1978) method of phenomenological data investigation proved to be a process that captured rich descriptions of the lived experience of the interviewed practitioners. It includes immersion into the raw data, identifying significant statements, which in turn were converted into significant statements. These significant statements were placed in theme clusters, written into exhaustive descriptions, reduced to essential structures and finally returned to participants for validation of trustworthiness. This application of Colaizzi's (1978) process of descriptive phenomenology has proved to be an effective strategy for this investigation and sets up a basis for further research. The next chapter presents exhaustive descriptions from all six of the interviewees.

Chapter Four:
Exhaustive Descriptions of the Phenomena

This chapter presents the backgrounds of interviewed practitioners and exhaustive descriptions of the phenomena under investigation. Six practitioners were interviewed in an effort to understand what is unique to them personally situated within their practices.

1. Marcus
2. Sarah
3. Conner
4. Helen
5. Oliver
6. Johanna

1. Marcus

Background

Marcus is a customer experience designer, he specifically focuses on the touch points in customer experience design "… *some of it is improving and innovating services and some of it around the engagement that comes from work or processes within community engagement.*"

Marcus explains that his employment background has been circulatory. He initially trained as a lawyer, which led him to planning work in local government. In the first ten years of his career, he worked on investigations, in both environmental and local government complaints, in particular, environmental enforcement and monitoring work. He discontinued this work when he realised that the organisation he worked for was only concerned with resolving individual grievances; he found the lack of broader community engagement limiting. Marcus was interested in work that engaged

communities more widely, mainly through behaviour change focusing on local concerns.

This led Marcus to learn more about community engagement techniques and how to involve local people as 'experts in their own situations. Marcus involved himself in, what he terms as "…*basically participatory techniques*," he found himself really stimulated by problem-solving and innovation. Marcus trained through reading books and experimenting and with running service design sessions with local government clients. He rebranded himself as a service designer and eventually ended up working back in council as a community engagement manager.

Continuous writing of experience - Marcus

Marcus describes himself as someone who thrives on diversity when engaging with people. Co-design makes sense for him: "…*it suits my values, it is a very human activity*, *we are social beings, and it is a people orientated social process.*"

He argues that it is more sustainable for people to learn to solve problems for themselves rather than having solutions imposed upon them. He expresses this powerfully, *"…solving problems with each other builds connection and connection leads onto gaining a sense of assurance and security, which leads onto more loving environments, and this helps us to be more peaceful."*

For Marcus, the process of building connection through problem-solving moves beyond solving the problem at hand and extends into a way of people being together.

He explains that he personally gets a lot out of having the opportunity to experience what other people think and the space to explore and appreciate those differences,*" …I find that really grounding I find that really uplifting, it's actually really energising for me, it is also about that's partly because of who I am."*

Within a work context, Marcus is aware that discipline specialisation can potentially lead to losing touch with other people that feel or think differently.

He finds that the co-design process keeps him in touch, "*…so I am continually refreshed and delighted actually by doing this kind of work and meeting people who surprise me, and when I realize I have been surprised I think … of course I was surprised …of course those people are there and they think like that*"

Marcus does not believe that co-design it is just another fad or passing phase because it is a strongly socially orientated process. He explains that he does not subscribe to what he believes is the hype that is sometimes situated around these types of creative innovation techniques, *"… as long as people are not continually reframing and differentiating co-design as a set of techniques that you can sell and advertise then he believes it is very sustainable and will remain forever in some form even if it goes by different names."*

Marcus works within a customer experience team, he describes his role as facilitator and coach, but primarily a coach. Despite his passion for co-design, he is fully aware of the frustrations and limitations of putting it into practice. He gives an example of an experimental approach in a play space development initiative he worked on. It consisted of small teams of 4-5 people who were given an area each within a city area. Their job was to try to stimulate initiatives in the social, economic development area and get people involved. He reported that "*…in theory it was a nice idea, but in practice, people did not have the time or resources to maintain this process.*"

He identifies one of his main challenges within a large organisation is trying to get people to work across silos. He expresses frustration as customers receive fragmented answers to requests for information *"…the information has been collated but not coordinated."*

To collect evidence on customer needs, Marcus's team conduct customer experience surveys. The data on these surveys do not reveal much information that is new and surprising. Marcus feels there is an opportunity here for a shift in the process. He identifies what they are trying to do differently
 "…what my team is now trying to do is find appetites from departments that understand that they have a problem, find appetites for site observation, where their customers are, and shadow their staff, and intercept customers very early

on in inspection routines or maintenance checks and use those as
opportunities to learn about customers in ways that staff have not necessarily
have done because they have not seen it as part of their job or they have not
had time they have just been too damm busy getting through volumes of work"

Marcus encounters the difficulty of shifting staff members from a fixed mindset
to one of listening and discovery *"…some people find change hard especially*
moving from a space of feeling confident and comfortable in their job to
something new and emerging, perhaps a new perspective or way of thinking
they have not thought about before."

He identifies the process of discovery as very important in bringing value to a
practical design approach, he explains, *"…the mode of discovery allows for*
exploration into what you don't know as opposed to confirming what you do."
Marcus observes that it can be especially hard for some participants who have
expertise in their own fields to develop a new mindset of listening and not
advising *"…they can dismiss experiences that might be significant to others*."
He identifies that this creates a tension for him, so he is alert to guiding people
from that fixed mindset through to a more open mindset.

Marcus identifies lack of time as a barrier in the creative phase of a co-design
project *"…often people are not fully released of the responsibilities of their*
regular duties and are participating in the project on the side." Marcus
observes that it can be a struggle for managers in busy organisations to see
the value of processes that can take up significant amounts of time, *"…they*
don't see much of a difference between outcomes of a co-design process and
the usual consultation processes." Marcus feels this is a direct result of
managers' not completely releasing participating staff members to the project.
As a result of the limited time that staff members have to participate in the co-
design project, not much new comes out of the process as people are still
writing and thinking on what on what they already know. Marcus feels
confident that given more time with the staff he could have produced some
different outcomes. Marcus has also looked at 'work a rounds' that makes it
possible to incorporate co-design into these processes. He gives an example
of a project on leisure services he is working on encouraging people to get fit

or physically active but are stuck in making a commitment *"…so what I am trying to do now is to recruit from our council family… 8000 staff from all walks of life… so trying to take a different approach and then we will do some co-design run with the staff, and then they will be able to use their own work time to do it."*

In response to a question from the interviewer around what people bring creativity to a workshop session, he identified that his experience of people participating creatively varied from group to group "*…there is a very distinct creative phase, I make that a key part in every project and I always have a workshop that represents the creative part of the process… even though the creative bit can come in at other times as well… so I tend to have a workshop approach to it, and regarding what I experience in people it really varies from group to group… it is not that I believe that people are different creatively… it is how they think differently.*"

In Marcus's experience, he feels it is better to give people time to ease themselves into a space where they feel that they can participate creatively. Marcus uses phrases like *"…allowing themselves to enter into a free association mode,*" "*…releasing themselves to be creative" and "…run off in tangents, …be a bit wild.*"

Marcus does not believe that bringing in specialist creative people from the outside would help stimulate co-design participants into thinking differently. His concern is "*…that if the exposer is short, they (participants) might react to each other and close down a bit. *" In addition, the specialist external creative would not have the full picture of what Marcus's co-design group are trying to do "*…the artistic people from the outside will be responding to immediate information in front of them and would not have the complete picture having not gone through the interviews so would not be fully aware of the variance.*"

As a consequence, Marcus would prefer to prepare participating staff members to be creative himself, as opposed to bringing in specialists to stimulate creativity.

2. Sarah

Background

Sarah was trained in traditional graphic design at university, but her primary interest was focused on design in a social context. She followed designers such as Roberto Mazzini and Victor Margolin who wrote on ethics and social practice in design. She describes her academic design lineage as participatory design, she speaks of it as her "grounding thing." When Sarah found participatory design, she felt very liberated *"…I thought oh great here's this thing that does this stuff that I want to do"*. So when she practices design, she either talks about co-design or participatory design. She explains what that means for her *"…it is either enabling other people to activate the design process to support collaboration or helping design the process ...so the challenge would be we want to do this project, how do we get people involved and what is the process we can use to co-design that together?"* Sarah describes herself as a people person; she did not find design very satisfactory until she discovered it as a social process. She sees design, in this context, as a vehicle to enable people.

Sarah is self-employed and works mainly on a contract basis primarily in the health and social sectors. She describes her work as very varied "*…sometimes its initiatives, sometimes its business, sometimes it's people.*"

Continuous writing of experience - Sarah

Sarah weaves her strong theoretical and practical background in design throughout her practice. She speaks enthusiastically of the value of using design as a framework within a multidisciplinary practice and goes in depth to explain how she applies design processes into her work. Sarah identifies collaboration as the main difference between the traditional design processes she was trained in and methods used in co-design. For Sarah, the design process of an idea solution and the development of a thing or object is the same "*…so they are the same practices… it's just that they are available to other people to pick up …or it's a way to collaborate, so I see it as a process*

that they are trying to design something but it is also a framework design is a very useful framework in a multidisciplinary space". Sarah gives an example of how that works for her in practice, *"…so if you are working in health and we want to integrate social enterprise methodologies, agile methodologies health and well being, social outcomes, design becomes the framework for saying yeah, yeah, yeah, we will bring that all in and we will work out a way for it to all meet each other."*

Throughout the interview, she is very clear about how she applies these particular design processes when working with co-design groups. Sarah describes what she does as 'design coaching.' She is trying to cultivate practice in people, preparing them to adopt co-design into their organisations.

As part of her role as design coach she encourages people to develop a "designerly practice." She uses this term to describe techniques that design practitioners naturally use. She identifies these techniques as making ideas visible with sketching, prototyping and the practice of critique. Sarah speaks with passion about the work of Donald Schön. She views his work as a wonderful examination on 'reflection in action,' one that implies a dialogue or conversation. *"…you make something visual, and it talks back to* you." Sarah speaks to this idea" *…you know you draw a picture and it talks back to you, and he exposed that designerly practice."*

Sarah draws from the 'arts school' model of critique, "…*now I explain to people that this is why in art school you have to show your stuff, you put it out there and everyone rips in to pieces and the practice of putting stuff out there and realizing that there is much more to be gained in offering something out there and working through it and that is how you learn, people can find that enlightening".*

Although Sarah applies design processes from traditional design practice and critique from an art practice model, she finds the association of creativity to arts practice less helpful. When asked (by the interviewer) on her views on creativity, in the context of co-design practice, Sarah spoke of her "mild aversion" to the word "creativity," for her, it is most commonly linked with the idea of "art practice." She wrestles with her response to the word creativity and

this association "… *I think because I think there is so much more to it than being creative… but I sort of understand it in a way really what we are trying to do is open a space for… I think I just have this really arts and crafts idea of creativity and it's not about creative… I have a response to that like from an art school space… no, but I really think it is important because you are trying to create a space that is creative… so in a way, it is creativity with a small c, not a big C* ".

Sarah's concern is that creative engagement might be undervalued because of the association of creativity to arts practice. She believes this could lead to a narrow view of creative processes and outcomes. Her point of view is that everybody who is affected by design needs to be involved; the work for her is to enable the people she works with to participate. To do this, she needs to think about what creativity means to the people she works with. Her emphasis is less about creativity and more about participation. She outlines her theory of 'scale of participation' and gives two contrasting examples from her experience working with a group of young people to illustrate this point, *"…what we want to do is generate a bunch of ideas to learn from each other and might do some scenarios and when working with young people we might get them to think up different ideas and map those out - using scenarios so if this was the product what would it have to look like in order to be really successful one and what would be a really shit one you know we kind of jam on that and I have seen a lot of creativity come out for people doing that kind of work".*

Sarah continues *"…if you stopped the work at this point it could be used as inspiration for designers to take that away and develop it into an idea and content.*" Further along that scale towards increased participation, the young people have the idea and develop the content, *"…we let them cut the media let them produce the program and traditional experts in media productions, for the sake of that particular example, were kind of horrified because of the quality of what came out was not the standard that they were used to but the authenticity was like 260% because these young people had made themselves for themselves and for the purposes of what it was for, which was social cohesion and cultural diversity communities it was almost the only way you could have*

done it in a way so to me we gave them almost complete creative power."

At this point, the creative director only helped them think about what they were doing he/she did not make the decisions. Sarah clarifies that the creative director or facilitator could work with a group at either end of the scale and that is a decision that you make about where you want to let people be.

Sarah's main concern is with social process, she finds that sometimes the idea of creativity simplifies what we mean, "…*really good ideas are not …they are not what is holding us back from good social change, much more stuff that comes out."* For Sarah *"…co design enables a process to engage in the realities of what it means to be human, what we are like*, *it is more about what the work enables in people around building elasticity, openness, and risk-taking than the project itself.*" (When using the word risk Sarah is careful to explain what that word means as she feels it is often overused, for her it is about giving people the freedom to be genuinely experimental).

Sarah emphasises this again, *"…within the co-design process you are working with humans and talking about humans, so there is a lot more relationship work than project work. In this context of co-design process is used as a vehicle in contrast with traditional design where the emphasis is on the outcome project, materials, and technology.*" As a consequence, Sarah looks wider than just design processes; she believes that design does not do well in social contexts. She gives examples of areas that she feels design does not do so well in, like evaluation and social impact. She is looking for *"…another richness that could be added"* to co-design practice applied. Examples of other disciplines she is exploring are systems theory, complexity theory, community development, and Kopapa Maori.

When Sarah was asked (by the interviewer) on the extent that a co-design process could effect change, she felt like that was a big question. For her, it was about people feeling capable of making contributions toward causing change. With the support of an environment that fosters resilience. Sarah focuses her work on building resilience no matter what the project is.

Sarah observes that design thinking practice is sometimes perceived as a vehicle for social change. Sarah identifies problems because ethics is not typically embedded within design thinking practices, "*…a lot of people have been using design thinking in that way, and now governments are investing in it, and designers coming out of design schools want to change the world with design.*" As a consequence, Sarah believes that there is a huge opportunity for education in co-design practices, "*…those trying to are quite challenged in that there is almost no support, not many people around to help them out.*" She expresses some dismay; she thought that the inclusion of a social process in design education would have progressed by now.

When asked (by the interviewer) how she saw her role within a co-design process, Sarah responds, *"…so you are basically a facilitator or a broker - sometimes a provocateur…sometimes you have to get people to think strategically it is often giving the people the tools to think strategically about complex decision making and how you use evidence and how you use lived experience and other kinds of data and stuff like that so I see that as a facilitator and brokered type role or its a coaching role"*

This complexity of Sarah's role is evident, she uses a range of descriptors to explain the ways she works with a group. In the role of 'facilitator,' she helps a group of people understand their common objectives and assists them to plan and achieve these objectives. In the role of 'broker,' she negotiates agreements. In the role of 'provocateur,' she deliberately behaves controversially, to provoke a reaction and finally the role of 'coach' where she guides, trains and advises.

Sarah was then asked (by the interviewer) how the participants she is facilitating might see her in her role. Sarah described it *"…perhaps like a partnership but thinks that might be overstating it as they do most of the work, someone to get them thinking, help connect some dots."* She is very clear that it is important not to own the project, she positions herself in more of a support role, to help share tools and build on what the participants are already doing.

"…you are trying to facilitate the people in that kind of engagement, it depends

on the dynamic - look I guess I am looking for the right word, often it is about just putting people on the right track, we are good now thanks - we just needed to get ourselves thinking - a little bit of a guide - I don't think I have ever thought about that bit of the question".

However despite where she positions herself, she finds people really love to make her the expert, she finds it to be a typical mindset that makes her feel uncomfortable. "*… they really like to say Sarah's the expert, which I always feel quite uncomfortable with because there are things that really trip you up in co-design, when you have a firm sense of who has got the knowledge about themselves or their organisation, So the whole point of co-design is really not to be the expert"* .

Concerning 'expertise' Sarah describes an experience of simultaneously having a sense of being ok where the process is going and a powerful idea about what is required. She reports needing to continually examine her own motivations about the difference between the things she is okay about and the things she cares about profoundly which may lead to a firm idea of what is required. She identifies those two things that are happening at the same time for her *"… depending on what scale so you know you might all be taking um a taking a different potion, someone has to have the overarching design strategy … someone needs to lead that …someone has to own that …cause it is like how do the pieces fit together, but that does not mean they are making the design decisions per se - they are just making sure that you are still getting somewhere"*.

Sarah reflects on knowing what an outcome has to do for her and the participants she works with, in contrast to having a preconceived idea of what a result might be.

"…so it is interesting because you don't know what the outcome is but you do know you are working towards- you have to know what a good outcome is when you see one- so you have got some set of criteria of what success is and the success criteria changes over time as well so you kind of know what you what the outcome to be without knowing what the outcome is you know what I mean - you know what it has to do for you".

Sarah described feeling personally transformed in radically different ways by the co-design processes. She expresses gratitude to participants who give their time and the depth they are willing go to share and their stories and contribute to a project, "*…sometimes they have never talked about them before, and they can be deeply traumatic experiences, and they are deeply emotional, and they are willing to contribute because someone else might benefit from the process that they have been through themselves.*" She expresses that she finds this experience very humbling and describes feeling privileged at the extent to which people are willing to share. She gives an example of being in workshops and people sharing stories of addiction and recovery, *"…I think one of the challenges for me is that on the one hand it is work and on the other hand it is life.*" She is very aware that it is peoples lives that she is dealing with, and because it involves peoples mental health there is a degree of risk in the work, *"…there could be an instance of someone being triggered by something that happens within the process*, "*…you know it is really real, it's really real - you could have a profoundly lasting effect one somebody through the actions that we take".* She also describes another experience she frequently finds transformative; *"…generally speaking if you put people in a room, give them some space and a few things to work with they will come up with some really amazing stuff."*

3. Conner

Background

Conner works within a customer experience design company. He calls himself a designer but with a broad interpretation of what that means. He does not see himself as practising within a particular design discipline. He feels that if he gave himself a label, it would be within service design and customer experience design. He has a Bachelor degree in social sciences but no formal qualifications in design. He learned about service design and human centred design in a job he had and feels like he kind of just stumbled into it *"…I always had a bit of a natural interest in innovation and creativity and then stumbled onto the methodology."* Through on the job training and mentorship and 'devouring' every article he could get his hands on, he left that job to set up his own company to keep pursuing and applying that methodology under his own

steam. Co-design is new to Conner, he has attempted to try out the process a couple of times, but at the time of the interview his business had not taken it on as a standard practice.

Continuous writing of experience – Conner

Co-design is a new practice for Conner. His motivation came from a desire to find a better way of involving people he is designing for into the design process. When an opportunity arose for Conner to apply co-design methods to a project, he was keen to take it up. Throughout the interview, Conner reflects on his experience, expressing both optimistic and sceptical points of view about the practical realities of adapting co-design practices.

Conner's expertise is interaction design, as his business concerns itself with customer service design they typically use methods of human centred design. This includes what Conner describes as *"…more traditional approach of interviews, creating personae and journey models"* he explains this process as "*extracting information to build insights.*" Working with co-design offers an opportunity for Conner's design studio to explore if there is a better way to incorporate user insights "…*how you might involve the people you are designing for in the design process, more of an active contributor kind of model rather than seeing them as just people that you extract information from and build insights about".* To illustrate this further, he uses the model of a continuum, on one end you have the designer who, through an empathic approach, generates insights for people and their needs and then uses those insights to create some kind of solution. He points out that this is "…*the practice his company currently employs.*" He is curious to move further along that continuum to co-design "…*where the people you are designing for are doing a good chunk of the design work themselves."* This leads him to believe that employment of this process could potentially lead to solutions that are better designed for the people who will use them because they are more reflective of the people's needs in the context of their broader environment.

Conner has an existing contract with a primary school designing iPad interfaces for educational applications. Conner made a suggestion to the client that there might be value in trying out a different design process, one that

involved the kids more directly in designing a system that they would use. The client was open to taking this approach as the methods of co-design and their philosophies of education matched up. The co-design process allowed for direct involvement by the children and was congruent with the client's views of students taking active roles in their own education. To skill himself up in co-design practices, Conner sought advice from a co-design practitioner and read articles on the theory and useful techniques he could use, and he had *"a crack at it from there."*

He gives an example of the process he used with the children *"…the best example was where we printed out screenshots of crucial parts of the software system and then set them up in stations around the room with post its and markers and then got the kids to break up into small groups… two or three in a group and had them move around each station with the instruction to draw or do whatever they wanted to those screenshots and communicate ideas about how they would change that interface and we gave them a series of prompts… if you were designing or making this for your younger brother or some particular user - what would you change? What would you improve? So we had a series of provocations.*

To begin with, Conner sat down with them, observed how they used prototypes, and spoke with them about their experience. Conner found from the student reactions that they were quite stunned. He commented, *"…that they were being asked not only what they thought but handing over the reins to have a go themselves."* Conner's perception was "…*on one hand they felt that that was quite cool and on the other, they didn't know quite what to do with it.*" His impression was that the students were not familiar with power and involvement in creating something that they might use. He suspected that there might have been a tension between the traditional education experience that focuses on learning rules and formulas to get to the right answer and the co-design process, which is a process of discovery. Conner believes that it requires some tolerance of sitting in the unknown while in the process of discovery. He questions whether improved facilitation and scaffolding of the process would have been enough to break through that barrier. He felt like the students were not mentally in the right place and as a consequence limited the

value of what they did. He acknowledges that he has limited experience in co-design and is left wondering how much has to do with the people you are working with and how open and flexible they are to the co-design process. He also questions the structures that the students are educated in. To him "…*they seem dependent on these structures they are given, and as a consequence, their interpretation skills seem limited.*"

Conner is not sure that the students he worked with were able to cope with ambiguity. It leaves him feeling a little sceptical of the co-design process, he is not convinced that just any audience or set of participants can deal with a process being handed over to them if they have no prior experience of working in that way. He thinks that designers possess a unique skill set that is necessary to the process. He questions, to what extent are people naturally capable of applying that skill set if they are not at least semi-experienced with design work.

He continued to reiterate his inexperience in co-design practice and remains hopeful, that through observation of an experienced facilitator he may be able to transfer that knowledge more effectively with the same set of participants. Conner felt like his learning was "… *around setting the projects up and creating the right conditions so that participants feel comfortable with what the opportunity is, and comfortable with engaging*." He uses the term *"weave some magic"* which perhaps reflects his scepticism of this happening.

He also questions design industries motives in adopting co-design as a new practice, using co-design methods as a technique or activity without understanding the depth of the practice. He describes this as *"lip service"* and "*faking it*."

4. Helen

Background

Helen originally trained as a social worker and worked in the care protection, social policy, and health sectors. Her first contact with co-design was training in the English method of 'experience based co-design, she attended a training session and came away very enthused about it "*… I liked the focus on*

storytelling, I have a Masters in Creative Writing, so the storytelling aspect was a fascinating way to engage with patients… because I think some of the traditional methodologies don't work very well." Helen's focus is on experience-based co-design. At the time of the interview, Helen worked for the Auckland District Health Board with the working title of Project Manager, in co-Design.

Continuous writing of experience - Helen

Helen's occupation is situated within the health sector; she has strong views on the value of patient and family interaction in the design of services and spaces. She has worked on significant projects in hospital and patient care. Her official title is project manager, co-design; she describes this as "*a bit of a mix of a role.*" In this role, Helen works on service improvement projects within the hospital that involve patients and families in conjunction with performance management and clinical teams. She explains, "*… part of my work is doing practice - some of it projects - some of it is coaching – mainly, but not exclusively working with people in my team.*"

Helen's team is the performance improvement team, they have a lot of interaction with designers. The design lab sits within the performance improvement team, but they still operate as a separate entity, "*…they are called in to do specific parts of the work but do not generally manage the projects.*" Helen's team is interested in building internal capacity within her own team, in contrast to relying on outside contractors. Helen describes experience based co-design as a slightly different method from the traditional design method of design research "*… traditional design work does a lot of immersion, but it's us going into someone else's world and trying to understand it*" whereas experience based co-design has much more of a focus, in her opinion, on user groups (patients and families) telling their own experience and identifying the touch points themselves. Helen will refer to this again later on in the interview when she talks more about the role of designers.

Helen divides the projects she works on into two types, one where *she "pretty much has free rein,"* and the method is decided upon by the group. The other is where they have limited time but still need to capture patient's viewpoints.

Within the context of having "free rein," Helen explains that because her role is developing resources and training, it is a position that allows for more flexibility and possibility to expand the use of the methods. She observes that "*…going in with no agenda and a structure for engaging to capture experiences, can be refreshing for staff and seems to go down well in quite a complex political environment.*"

She has noticed that acceptance is growing to open-ended experience-based methods, especially around problems that are more complex. She gives an example of a client briefing; they wanted to know what worked and what didn't within a particular area of the hospital service and what people experienced within the service provided. There were no other parameters attached. Helen felt that was really good "*… that is the ideal project, but I am not sure that would apply on all projects, just some*". She also notes that the hospital she is involved in is more open to the process, as people that are interested and support the method, have risen to levels of influence, She feels *"…that really helps."* Helen also has a strategy; she publishes papers in medical journals instead of design publications, with the goal of getting a wider audience with medical practitioners.

Regarding limitations, Helen identifies time as the main barrier, "*…it (co-design) is seen as very time intensive if you follow the whole model right through.*" Also, she identifies issues around methods, as another limitation, "*…hospitals tend to be very evidence-based, and the evidence base for experience-based co-design is fairly new but not unheard of.*" Helen believes that co-design can be a challenging method for people who are more accustomed to goal-orientated outcomes. For Helen these limitations are not ideal, sometimes she has to accept that design processes have not been incorporated into the project, however, *"… small shifts in thinking can serve as learning for what can be done within these existing parameters."*

Previously Helen reports that she used to get quite frustrated with this limitation, now she values opportunities to educate people on co-design methods even though it is not really a co-design in practice.

When Helen was asked (by the interviewer) on her views on creativity in the context of co-design practice, she responds *"…being comfortable to dealing with uncertainty and that comfortableness is ok but we don't really go too much into emphasising that everybody is creative."* Helen makes a point not to emphasise creativity as a process in a medical setting as the people that work there, work from a clinical model. Helen works at a practical, not theoretical level, trying out a variety of prototyping materials and different approaches and generally just having a go. She finds that at first participants can be quite reluctant, but in time they get it and go on to really enjoy it.

In her work, Helen strives to hear the voice of people who are not traditionally understood however in the broader context of health organisations, she believes consultation is not done well. She describes an exploratory piece of work. Her team was engaged to find out the experience and views of patients, their families, and staff of an acute mental health unit, "…*more in-depth information on what people were feeling and experiencing*." This information would then be fed back to a steering group, and they would look at what changes could be made within the unit, in response to this information.

Helen provides an example of an informal opportunity for involvement with hospital patients. Members of Helens improvement team were permitted to participate in a staff and patient BBQ in an acute mental health unit where the patients were not well enough to be interviewed *"…we permitted to go to the BBQ with a tool that was designed for the purpose; it consisted of photographs of people interacting in various ways".*

Helen's team sat at a table and waited for people to approach them. When they were approached, they were able to talk briefly and ask patients to pick three pictures that they thought best represented the unit. This included a further discussion with patients about how they might imagine an acute mental health unit of the future would look like. Hannah identified value in this process *"…this was a really great way to engage with people who were acutely unwell."* The tool was designed by an external design service, at first, Helen was not keen on it but later saw it's value when she realised it could be adapted for

different groups and gain a significant depth of information. When presenting results, they were able to show the most frequently picked and useful insights.

Helen outlined a particularly compelling example of a picture of a clock. She found this image was interesting as it brought up polarised views from patients and staff. Staff picked the clock because it prompted a feeling of everything racing by and feeling like they never have enough time to get things done. Patients chose the clock because they felt like time goes so slowly and they get bored. Helen felt this use of design and piloting tools was quite a powerful way to both gain information and present it back to the steering group.

Helen senses there has been a shift in attitudes over time around gaining access to these older patients in mental health units. Previously staff had been very reluctant and protective of their patients, and Helen and her colleagues were not even able to go in and observe. Now they allow them to go in and are shown around and are able to use these tools.

Helen defines people who have trained specially in design as 'pure designers' rather than others who work in co-design, who come from a mix of all trades. She sees the biggest issue is around language and terminology, *"…if people are locked into very set methods there will be more difficulty with different terminology"* she reports "…*having a few battles with people around method and language*" She gives the example of the difference between using terms like engagement and immersion, she feels that immediately confuses people.

Helen describes differences in terminology between traditional user centred design and experience based co-design. Within user-centred design, 'immersion' is a term used by designers to describe, going into someone else's world to understand it, to become immersed in it. This implies that the designer is required to interpret the data collected from end users to devise solutions. The term 'engagement' used within experience-based co-design refers to the end user being engaged in as many aspects of the design process as possible, identifying solutions themselves.

Helen seems sceptical that design actually engages with people, she reiterates the importance of one of the philosophies of experience-based co-design of equal partnership between designers and end users. In an ideal world, they (patients and families) would be involved in the set up of the project, design, and methods used and the identification of significant touch points that influence the implementation of designed outcomes.

Another issue Helen brings up is the tendency for design to be action orientated. She feels that within a hospital context this is unrealistic because of the ethical considerations of talking with patients. Often co-design projects have to go through to an ethics committee for approval. Even though Helen understands that this approval process is necessary, delays can be frustrating, she feels like designers would get even more frustrated with this because it is not something they usually need to consider.

"*…a quick piece of work and the designer said lets go and talk to people and take photos and I said well we can't actually take photos of patients or staff …you can take them of staff if they give permission …with patients there is a process you have to go through to get consent you know you can't just go around with your camera, and I felt a bit like I was stemming him a bit saying no you , but there is a tug between doing things quickly*"

Because ethics is not commonly embedded in design, designers (esp. students) often do not consider it as part of the process and assume that they can go in and talk to people, take photos, etc. Helen finds she has to inform them that they need permission. Because of the consent process, there is a tension between being agile in design and ethics working with a hospital population.

5. Oliver

Background

Oliver studied English, Psychology, and Design at University. He initially worked as a qualitative researcher and then transitioned into design research and service design. His current work title is Customer Experience Design Lead Facilitator. He describes himself as a service designer with a

basic methodology or orientation toward co-design "*…in the real world you realise that means many different things, so it is more like an intention than a full-blown reality most of the time.*"

Continuous writing of experience - Oliver

Oliver describes his journey as a huge transition from qualitative researcher to working within a co-design framework. He felt that this transition was awkward for him, as the territory of co-design was not well articulated. Oliver apparently has confidence in himself as a collaborative designer/facilitator and presented as someone who thinks genuinely about co-design practice, showing care for the people he works with. Oliver describes his process as empathetic, open and enquiring. It is clearly a practice that aligns with his personal values. He sees co-design as a practice that has the potential to create positive social change; however, he also expresses doubt and scepticism about co-designs application in practice. He articulates his work in co-design as a journey of personal transformation.

Oliver expresses that through his experience as a co-design facilitator, he has become used to 'holding a group' in this process that is new to them. His descriptions range from how he is guiding the process, through to the physical and emotional comfort of the participants "*…that holding feels like it has many layers for me and a lot is going on in my head, are the people happy? Is my process working? Is it warm enough?* " His description of layers suggests that he is very attuned and aware of these needs of the group.

When Oliver teaches co-design, his focuses on 'what it means to be human' "*… what sensations or feelings do we use to make sense of things and how you use that to empathise and analyse.*"*?* He describes himself as a de-mythologiser a crystallizer of basic human truths. It is important to him to discover the underlying meanings that *"…make clear, take shape and emerge."* In the context of interviews with end user participants, it is essential for him to engage with the person not with the question, to try to get a feel for them.

Oliver expresses that through his experience in co-design he has got used to trusting himself, to have a sense of where he wants to go with a co-design process, even though at the beginning of the process the outcomes are uncertain. He uses a metaphor of being in a boat riding up a stream, not knowing where the stream is going to and getting used to trusting himself to have a sense of where he wants to go with things. He uses this body-in space metaphor as a way of describing subjective experience *"…it's like being in a boat riding up a stream, not knowing where the stream is going to."* This brings to mind an image of being of being on a journey in unfamiliar terrain. There are clues within the metaphor that indicate Oliver has some expertise and familiarity with the co-design process. The boat is riding 'up the stream' which would suggest it is moving counter to the current. He is not drifting, as he is moving upstream. The destination and immediate surrounding are unknown. This metaphor implies that Oliver has got used to trusting himself and having a sense of where he wants to go. Further indicating that he has been in this situation before and has gained some experience in the process.

Reflection is an integral part of Oliver's process in his role as a co-design facilitator *"…what are we gaining, where is the balance …how valid is what I am doing? You are always asking yourself, how much ownership do people have over this process, over the project, over the technique …how much is let go and how much handing over so participants can walk away and do stuff for themselves …this is core to the practice."* Oliver states that his constant vigilance is core in his role as a co-design facilitator.

As Oliver ages, he expresses interest in the idea of wisdom. He is interested in how the wisdom may fit within co-design practice "*…the idea that you need a lot of wisdom to see your way through complex problems,*" he believes that incorporating wisdom with co-design is an unarticulated territory and it has the potential to get a bit freaky or perceived as new age. He struggles with this idea and poses a question to try to understand it himself, *"…what is it …a lived experience? …a discovery of someone else …another thing we struggle with …is the western perspective of creativity".*

Oliver struggles to find the words that describe the difference between a team that is employed to deliver a creative outcome and a group of people creating together. When asked (by the interviewer) if he felt that there was an alternative cultural framework he might draw from Oliver brought up the reflective group practice in Maori tradition of the Hui. His view is that it is, in essence, a group decision-making process, where you listen to people carefully, you think about it, reflect on it and then stand up and respond and then you sit down. When you have said what you got up to say, there is no litigation. He describes that experience as considerate and very secure.

For Oliver no matter how good you are at using a creative tool or technique with a group you have failed unless you are able to show people how to do it, "*…if you want to do a technique or a tool with a group of people, your technique is only as good as your ability to be able to show people how to do it, so you might be a guru in that technique but you have failed unless they can go on to do it really well*". He asks, "*…what is the crucial task, the outcome, and what is the best way to get to that.*" In his view, the best way is to let go, to leave the guru at the door, often leave the technique at the door and this forces you to be creative in unexpected ways.

Oliver speaks of an internal shift that is reflected in the work that he does. He feels he has developed a technique or a philosophy of working that goes out wider into the world rather than a set of pre-determined methods and techniques**.** Through the process of working in co-design practice, Oliver describes a change in himself from introvert to learning to be more extrovert. From relatively analytic in his thinking too more holistic. *"…so I am a hermit … I am an introvert, so I have changed …now I spend all my time with people. I am intuitive and reflective, and I am very interested in how social stuff works.*"

When asked (by the interviewer) how that internal shift reflects on the work he does Oliver responds by reporting that there is a tension for him. On the one hand, he explains that because he is an introvert, the world does not make sense to him. His attempt to try to make sense of the world for him is impossible, but that in turn teaches him acceptance (he describes it as kind

of a Zen thing) and that there are many senses to be made, and that insight helps him to appreciate the worlds of others, and he feels happy with that.

Oliver believes the service design industry, in general, is still very wedded to design thinking and that bugs him a lot. He thinks that there is a lot of emphasis on toolkits that are used in the design process "*…it feels like filling in templates instead of hardcore enquiry.*" In contrast, he illustrates the complexity of implementing a service model with an example of a project he was involved with. He explains that it was a service and a toolkit designed to enable conversations with people on death and dying. It was designed to help people prepare wills and sort out affairs before going to the hospital. He identified that it could be problematic if the patient's wishes were not clear and potentially caused tensions in families. After conducting patient feedback interviews, Oliver realised that in addition to developing the service and toolkit he needed a person connected to the project who could teach people how to use it. In this implementation phase, he realised he could not just hand over the tool. Defining and communicating the teaching role that person would take, within the project, was important. At first, he saw it as a role that would facilitate conversations, but this ended up attracting people who were interested in therapy. He was very clear that this would not work well, as it was not designed to be a therapeutic tool. After some reflection, he redefined it as a communicator role, rather than a facilitator or anything that would suggest therapy or counselling. His next step was to create a template for the toolkit and pilot it. The result was a package that communicators deliver in any kind of community, with a toolkit designed to help people understand issues around death and dying and how to manage it proactively.

6. Johanna

Background

Johanna's background before working in co-design was very diverse. She started off as a lawyer in corporate law and family law and gravitated to working in community law. Although she enjoyed the small contribution she could make as a community lawyer often, she felt like just the ambulance at the bottom of the cliff. From law, she made a shift to market research. This move introduced her to ethnographic research, which led to design thinking processes and

opportunities to work with co-design methods*"…we had a little design thinking community that was my first introduction to design thinking and I fell in love."* She described design thinking as a framework that brought together her way of working with strategy and research *"…I have always been very curious about people, what makes them tick and what their motivations are."*

Continuous writing of experience - Johanna

At the time of the interview, Johanna was part of an organisation set up with government support to experiment with co-design methodologies. Their goal was to investigate if co-design could deliver better value than more traditional government approaches to social change. They wanted to prove that there is a better way of doing of enacting change through co-design by working directly in the social impact field. One of the key deliverables of the organisation was to implement the projects more cost-effectively than the way that government services were currently delivered.

Johanna identifies that the design projects her organisation works on are situated in the social impact sector, which according to Johanna is a slightly different part of the design field; *"you are designing systems that support experiences."* The ideal timeframe for a co-design project is four months. Johanna's role is to get the resources and political buy-in and to shield the people involved in this process from the politics of their parent workplaces. She a lso advocates for the methods of co-design to show how it is different from usual social change processes. She describes her role as, *"…unlocking resources, topple hurdles, spread the word, telling the story."* A major aspect of Johanna's role is to find willingness from other organisations to participate in co-design projects. She describes it as finding the willingness, where the heat is, where people want to solve problems. She describes it as finding the "just right porridge" of an area to play in. Her descriptions illustrate the temperature she is looking for; too cold implies not enough motivation, too hot suggests intensity or discomfort, just the right temperature is where she finds the willingness.

Designers or co-design facilitators play a pivotal role in Johanna's team. She is enthusiastic about contributions the designer can make toward solving complex problems. Jane identifies meaning as central to what people want and seek in

their lives, she thinks the role of the designer is to show where that meaning is, generally in a way that is attractive to people, whether it is in advertising, service design or designing systems. She sums up how she sees a designers role *"…that the designer, curates, understanding, coaching people to understand what they already know and reflect it back and then create experiences."* The co-design facilitators/designers goal is to help participants unlock their imagination and find different perspectives, *"…to find out undreamt possibilities."*

Johanna states that one of the worst things a designer could do is have a fixed mindset or only one view of the world. She argues that the designed message or service fails to reach people if designers do not have an understanding of their experiences and perspectives. Because of the increased emphasis on end-user participation, Johanna believes that there is some change to peoples perceptions of what design is or what a designer does. She considers the growth of service design as another strand of design is starting to shift these perceptions.

Johanna is very clear about what she believes design needs to do *"…to be meaningful, design needs to be a catalyst …it could be a mind shift …some understanding …an action. There has to be some kind of action; otherwise, design is not functional …not meaningful".* She states that one of the worst things a designer could do is have a fixed mindset or only one view of the world. The design would fail to reach people because of that limited perspective.

Johanna draws on research from academics on the fixed and learning mindsets. In her own words illustrates the two mindsets as she sees them; *"…the fixed mindset is ruled by fear of failure it's about setting up rules and following them …it's about jumping through the right hoop."* She sees examples of this mindset within the education system concerning creativity and originality *"…we kind of beat it out of them."* She points out that the advantages of that mindset are that it is great for perpetuating the status quo and making a system work well. She then contrasts that with the learning mindset *"…the learning mindset is also important and that is at the core of the process …embrace ambiguity …take off expert hat …be curious, be ok with the fact that you do not*

even know what the problem is let alone the answer."

Johanna stresses the importance of both of these mindsets, but emphasises the importance of the learning mindset over the fixed mindset *"…if you what to innovate, if you want newness."* She speaks of a kind of instinct and uses the idea of an entrepreneur as someone who might possess this instinct and maintains it because they have not been through training in a fixed mindset. For example, participating in higher education. Further, she believes that because of this entrepreneurs have their creativity intact, so, therefore, have a higher tolerance for ambiguity.

Johanna believes that most people have an orientation for either a fixed or open mindset. Further, they often situate themselves in a workplace where their particular orientation is most useful or suited. She believes it is vital for both mindsets to have empathy toward each other as they both bring value to various situations and they can learn from each other *"…they are not freaks, and I am not a freak we have all got great stuff to offer."*

Johanna argues that Government organisations value the fixed mindset over the open mindset, Jane sees her job as getting these type of people out of their comfort zones, *"…its like guys you are going to be outside your comfort zone …just roll with it for a bit and see what happens."* She strives to unlock the creative and learning mindset and to get the people comfortable with that process. Johanna observes that most people get a lot out of the process*, "…most people just go OMG this is amazing and life-changing this is so how we should do it, and there are a few people that go this is weird and horrible, and I don't like I am going to go back to how I have always been it, but most people become infected".* For a few, it will never fit, but for the ones that it does, it can feel like a life-changing experience. Johanna describes that for her connecting people with their natural creativity and generosity feels like a virus. She loves it, other people hate it, but for her, it is part of the process, and you have to find ways to manage it. That's why guiding people into this process is so important if it is new to them. Starting out with small basic steps, *"…you do something minimal and safe, and you go up to the shop, and you say to someone hey just wondering what we are going to get at the shops today."* Slowly building their

experience and knowledge, an incremental process that they extend upon over repeated experiences. Johanna explains, *"… you have a very soft egg conversation, and then you come back and unpack that come up with the insights, and then you come up with something as to why people go up to the shop, and you might go out and do an interview with somebody, but you will have been coached through baby steps so that you are more and more comfortable with the method".* In Johanna's experience with the process, most people need quite a few goes at it until it becomes more comfortable.

Chapter Five – General Structures

Outline

The previous chapter presented the exhaustive descriptions of the phenomena under investigation (the experience of designers/facilitators in the collaborative practice of co-design) for each of the six practitioners who were selected and interviewed in an effort to understand what is unique or contingent to them personally situated within their practices. This chapter presents the nomothetic (general) findings. Through reflecting on the data and reading the data collectively a number of times, the following seven interpretive themes emerged:

1. Decentralising the 'Expert'
2. Emphasising Relationships
3. Allowing Participation
4. Selecting Modes of Interaction
5. Navigating Ambiguity and Dissonance
6. The Transformative Experience
7. Working with the whole environment, constraints, and opportunities.

Naming clarifications:

The people being interviewed for this thesis are describing their experience of situations where they are working as facilitators or designers in a co-design or collaborative process with participants. To avoid confusion, the people they work with will be referred to as participants and the six people interviewed will be called interviewees.

Summary General Structure for the experience of the designer in the collaborative practice of co-design.

Within a co-design team contributions of knowledge and experience are ideally equally shared and valued amongst all members. The traditional role of the designer as expert shifts to the more inclusive role of facilitator engaging participants into the various aspects of a co-design project. To build these connections, interviewees reveal the importance of attending to relationship work within the group. Attempting to maintain high levels of awareness to barriers that might shut participants down and prevent them from participating in a project is emphasised. Empathetic and intuitive qualities emerge as the interviewees describe the depth of the way they practice.

Interviewees give accounts of their own internal process during a co-design workshop. They offer their experience of a particular type of self- awareness within their practice. This involves a sense of trust in themselves in knowing when to guide a process, and when to step back and give co-design participants time to explore and lead design the explorations themselves. This process requires, from the interviewees, a level of awareness about holding in abeyance their own perspectives and preconceived ideas about the direction of the project.

Interviewees make use of the tools and methods of co-design to assist participants to physically manifest their ideas into tangible forms that are available for comment and reflection. Within this process, interviewees experience a range of responses from participants, from uncomfortable and anxious to enlightened and delighted.

Emerging from the interviewees is a general understanding of the environment in which the projects are situated. Various factors such as time, resources and locations act as opportunities or limitations when employing co-design projects. Because of these situations, interviewees acknowledge that co-design projects can vary in scale, from an intention to apply co-design as a way of working through to a fully implemented co-design project.

Interpretive Themes

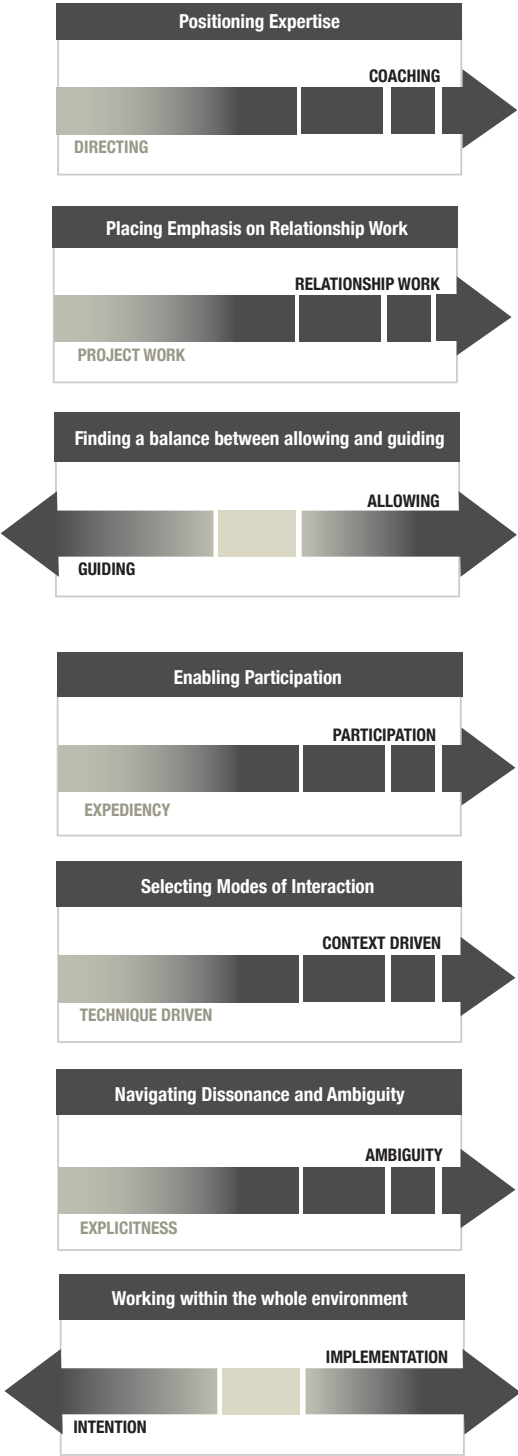The following interpretive themes were explicated from the data:

Positioning Expertise

Recognition that in the context of practising co-design the designers 'expert role' makes a necessary shift to design coach or facilitator.

Placing Emphasis on Relationship Work

In this situation, the designer primarily focuses on facilitating relationship work. This includes working in partnership beside participants, inviting them to share their own life experiences and contribute to the direction of the project. The emphasis on building relationship work seeks to move beyond the outcome of project work to extend into a way of being together. This shift intends to enable sustainable ownership over the project by the participants, so they continue to work successfully together.

Allowing Participation

The experience of feeling a tension between knowing when to guide the direction of a design process and when to step back to allow space for the participants to lead.

Selecting Modes of Interaction

Situated early in the exploratory workshop session, interviewee's use various idea generation methods with participants. These generative methods (design tools) provide a way of making normally unobservable things visible and available for action and reflection in design. When designers/facilitators make decisions about which design tool to use an understanding of the context of the project and problem framing is considered equally as important as the selected design tool.

Navigating Dissonance and Ambiguity

Creativity requires the ability to exist in ambiguity and tolerate disorder. Navigating a period where problems and solutions are tangled, emerging and obscured, it is unclear for a time how the pieces are going to form a solution.

Considering the Transformative Experience

In the situation of an exploratory workshop using co-design methods, both participants and designers seek to gain new perspectives and understandings that were not previously available to them before the process began.

Working with the whole environment, constraints, and opportunities

There are varying scales of how co-design methods are applied; this can range from an intention though to fully implemented project if the process is carried all the way through.

The following model (Figure 9) has emerged from the interpretive themes presented in this chapter. It provides a visual representation that summarises the various levels of emphasis a co-design practitioner may apply throughout the process of a co-design project.

Figure 9: This framework captures the complexity of the lived experience of co-design practice drawn from a descriptive phenomenological investigation. It has been conceptualised based on the experiences of six co-design practitioners, some trained in design and some who are not located within Australia and New Zealand.

Positioning Expertise

COACHING

DIRECTING

Placing Emphasis on Relationship Work

RELATIONSHIP WORK

PROJECT WORK

Finding a balance between allowing and guiding

ALLOWING

GUIDING

Enabling Participation

PARTICIPATION

EXPEDIENCY

Selecting Modes of Interaction

CONTEXT DRIVEN

TECHNIQUE DRIVEN

Navigating Dissonance and Ambiguity

AMBIGUITY

EXPLICITNESS

Working within the whole environment

IMPLEMENTATION

INTENTION

Theme: Positioning Expertise

Central Meaning

Derived from the descriptions of the interviewees, the experience of a designer primarily centres on facilitating relationship work within co-design practice. This recognition of relationship work enables, for the people involved, creative participation and collective ownership over the process of a project. In this context, the designers 'expert role' makes a necessary shift to that of design coach or facilitator. This shift in the role is significant as it acknowledges the core value of partnership embedded in co-design practice. This valuing of partnership also has implications for the end user as they engage actively in the design process and direction of the project.

Individual Variations

When designers facilitate a co-design project, they go beyond just asking participants (users) what they want. In contrast to viewing them as sources of information, they consider them to be experts of their own experience and situation, akin to contributing partners actively involved in the design process. Facilitators help participants to understand how a design project fits with their everyday lives and supports access to these everyday experiences through design-mediated activities. The breadth of descriptors used to define facilitator indicates the complexity of that role. They include; design coach, broker, and provocateur.

Both Sarah and Helen have strong design backgrounds and are experienced in applying design processes used within co-design. Sarah describes her role within a team as 'design coach'; she is trying to cultivate a design practice in people, preparing them to adopt co-design into their organisations. She also identifies other role descriptors for herself such as facilitator, coach or broker, and sometimes provocateur. She speaks of the value of using design as a framework within multidisciplinary practice; however, none of the people she works within teams, (who, including herself, come from health and cultural arts backgrounds) would call themselves designers. She defines her position as being in a social innovation process using co-design methods.

Johanna identifies the area of social innovation or social impact as a slightly different part of the design field "*…you are designing systems that support experiences.*" As a result of the growth in this area, Johanna believes that there is a shift in perceptions of what design is or what a designer does "*…they appear and act very differently from the stereotypical designer …wearing round glasses and a black polo neck reading a wallpaper magazine.*" Johanna describes the people in her team as eclectic, from many different backgrounds, she identifies they all share a desire to give something back*,* and she sees this as a 'humble thing' as opposed to an 'elite thing.' Johanna offers an alternative view of designers based on her belief that everyone has the potential to design, "*we design things all of the time whether we are aware of it or not.*" For her design is about purposeful reflection and uncovering "*…to be meaningful design needs to be a catalyst; it could be a mind shift, some understanding, an action.*" She advocates that designer's within her team share that view and incorporate it into their practice.

When asked (by the interviewer) how the participants she is facilitating might see her in her role, Sarah described it *"…perhaps like a partnership but thinks that might be overstating it as they do most of the work, someone to get them thinking, help connect some dots."* This perception appears to feel comfortable for Sarah as it fits with the co-design point of view of the organisation "*owning the process"* so there is longevity in the relationships and engagement. She is very clear that it is important for her not to own the project; she positions herself in a support role, to help share tools and build on what they are already doing. However, despite her view of where she positions herself, she finds people "… *really love to make her the expert*". She finds it to be a prevailing mindset and expresses that it makes her feel uncomfortable as she is acutely aware that this viewpoint runs counter to co-design and the position she takes as facilitator or design coach.

As a design coach, Marcus is concerned with the importance of getting people into a mode of discovery*.* For him, the value of the design approach is the opportunity to discover what you do not know already. He often works with people who hold advisory positions in their professional lives. Because these people are very familiar and comfortable with advising on their *"knowledge*

field" he feels it is hard for them to move away from that position. He observes an easy jump to a defensive position instead of being open to new perspectives. He feels there is a tension for him when working with groups as this closed way of thinking can dismiss the relevance of other viewpoints.

Conner believes designers possess a unique skill set. He is uncertain to what extent people are naturally capable of applying that skill set if they are not at least semi-experienced with design work. In his experience, it requires resilience to sit in the ambiguity of an open-ended design process, and he is not sure that participants who have not previously worked in this way can cope with it.

Concerning coaching, Oliver states that you have failed unless you are able to show others how to use creative tools and methods "*…so you might be a guru in that technique, but you have failed unless they can do it really well.*" He describes coaching as understanding what is *"the crucial task"* and "*what is the best way to get to that*." In his experience, it is best to let the idea of the creative expert go *"…leave the guru at the door"*. If you are able to do that it forces you (as the coach) to be creative in unexpected ways. Oliver feels like creatively there is a considerable tension and pressure for him to teach people to do something if the timeframe is limited.

Theme: Emphasising relationship work

Central Meaning

In this situation, the designer primarily focuses on facilitating relationship work. This involves working in partnership alongside participants, inviting them to share their own experiences and contribute to the direction of the project. This emphasis on relationship work seeks to build partnership and extends into ways of being and working together for participants beyond the project. This ideally fosters (by participants) a sense of ownership and a way of continuing to work successfully together using co-design methods. Emerging out of the phenomenon of 'relationship work' all of the interviewees describe powerful feelings of connection both to the process and each other. The nature of these

connections and the interviewee involvement vary according to the makeup of the participant group and where the project is situated.

Individual Variations

Sarah and Helen (both are employed in the health sector) are aware of potential issues and situations that can affect the lives of the people that they work with (such as participants sharing stories of addiction and recovery), as a consequence they feel that there is a degree of risk to the work that they do. Sarah identifies this blurring of life and work as one of the challenges for her "*…on one hand it is work, and on the other hand it is life.*" She is acutely aware that her actions within a co-design process could have a profoundly lasting effect and expressed concern *"…someone might be triggered by something that happens within the co-design process, you know it is really real, it's really real.*"

Helen identifies value in using informal processes to connect with people who were acutely unwell. A casual BBQ within the high care unit offered a way of connecting with acute mental health patients who were not well enough to be formally interviewed by Helen and her team. Helen's team took a tool designed for that particular purpose which consisted of photographs of people interacting in various different ways. Because of ethical consideration in a high care unit they were unable to approach the patients and talk to them directly. Instead, they sat at a table and if people approached them, they were able to speak briefly and ask patients to pick three pictures that they thought best represented their experience and discuss further (with the design team) their thoughts about a future unit. Hannah identified the value of being able to connect with people who were acutely unwell in an informal process, she felt,"*…this was a really great way to engage with people who were acutely unwell.*"

Marcus, Oliver, and Conner strongly express the personal value they get out of building connections with participants. For Marcus and Oliver, this recognition occurs in the activity of collaborative problem-solving. Marcus reflects that building connection through problem-solving (for him) moves beyond solving the problem at hand. It extends to a way of being together in a partnership that

offers participants a sense of security and assurance. From this position, feelings of connection arise; he felt those connections *"… lead to people gaining a sense of security and assurance, which leads to more loving environments, which helps us become more peaceful."*

Similarly, Oliver identifies a sense of openness and connection, more specifically in the process of making *"… and that is where I am happiest in a workshop where we are doing that because it feels like we are making something amazing together*." He values this process of making together and adds that he experiences a Zen-like acceptance of the process only making partial sense and of not ever reaching the perfect outcome, he adds, *"… that feeling like this is so cool, it is not me struggling on my own, we are all struggling together, and it is only ever going to make partial sense"*.

Conner experienced a feeling of connection with the students he worked with *"…I ended up feeling kind of really close to the kids"*, he felt that it built a lot of good will amongst himself and the students when they were given the opportunity to contribute. As his work practice is situated in customer experience design, adding value is commonly talked about, "*…I talk about adding value, and there is different types of value and different kinds of value.*" There was recognition for Conner that this feeling of 'closeness' with the kids through project work could be an essential part of the value equation. He really liked the idea that co-design was able to emphasise value in the process, not just the design or solution outcomes. He felt personally connected to that idea *"…The philosophy really appeals to me its very democratic and I just like that idea… I believe in that idea"*.

Johanna identifies the situation of participants (who may not see themselves as creative) having an experience of connecting to their own creativity, it is something she continues to feel passionate about *"…it feels like a virus to me"* of connecting people with their own creativity and generosity.

Sarah identifies the emphasis on relationship work rather than project work to enable the conditions required to support feelings of empathy and connection. Sarah focuses on building resilience in order to allow other people to activate

the design process and support collaboration, she poses a series of questions, "*...so the challenge would be we want to do this project, how do we get people involved and what is the process we can use to co-design that together?*"

Oliver focuses on bringing into awareness sensations and feelings and explains to participants how these sensations and emotions can be used to make sense of things, "*…how that awareness of human sensation can be used to empathise, to get a feel for others.*" He extends his own *"layers of awareness"* to what he identifies as holding the physical and emotional comfort of the participants he is guiding through a process. He describes that holding feels like "*…it has many layers for me, and a lot is going on in my head, are the people happy? Is my process working? Is it warm enough?*

Sarah expresses gratitude to participants who give their time and honours the depth they are willing to go to share their stories so others might benefit, "*…sometimes they have never talked about them before, and they can be deeply traumatic experiences, and they are deeply emotional, and they are willing to contribute because someone else might benefit from the process that they have been through themselves.*" She finds this very humbling and describes it as a privileged place when people offer you those things.

Theme: Allowing Participation

Central Meaning
Interviewees highlight the experience (in their roles as facilitator) of feeling a tension between knowing when to guide the direction of a design process and when to step back to allow space for the participants to lead. This tension was best described by one of the interviewees as the 'Zen-like' experience of control without controlling. At that moment, the interviewees experience a sense of trust in themselves to know what an outcome needs to do, even though they don't know what the outcome is and orientating their guidance in that direction. They are not making the decisions as such but providing a balance between guiding the direction of the design process and stepping back to allow collaborative improvisation to emerge. There is a high level of

self-awareness from interviewees as the design process evolves, being vigilant both to the needs of the participants and self-reflective of their own practice.

Individual Variations

Within the context of a creative workshop, Marcus is aware of instances of expediting the process by bringing in people who specialise in the creative process *"…like artists and designers and whatever to stimulate peoples' thinking*." In his experience of facilitating he is unsure if exposure to experts would help the operational staff that he is involved with to think differently. Additionally, he is concerned that because the exposure to creative specialists is so brief, it might cause participants to react and close down to the process. He also feels that they (creative specialists) may only respond to the information before them and miss variance because they had not been involved in the research interviews. Because of this, he feels, "*…I would much rather prepare them to be creative than bring in some sort of outsiders to stimulate that creativity.*"

Sarah believes someone needs to have an over-arching design strategy depending on the scale of a project, *"… to lead and own that, to have a view of how all the pieces fit together".* She stresses that it does not mean that they are making the design decisions; instead, the person who is leading is just making sure the group is *"…still getting somewhere.*" That person does not need to know the outcome, but they do need to know what the group is working toward and a sense of what the outcome needs to do. For Sarah, the expertise of the person leading is about identifying a good outcome when they see one*.* When she is leading a group, this experience feels like "*…simultaneously having a sense of being ok where the process is going and a totally strong idea about what is required*." She reports needing to continually examine her own motivations about the difference between the things she is okay about and the things she cares about deeply, as the things she feels deeply about may lead her to influence the direction of where the participants are heading.

Oliver emphasises the importance of reflection in his practice, he asks himself *"…what are we gaining, …where is the balance, …how valid is what*

I am doing?" He is concerned that the participants he is working with are gaining enough of the skills, knowledge, and direction to enable ownership over the project. Oliver states that this constant vigilance within the role of facilitator fits because ownership of the project and empowerment of the participants to be self-directing are fundamental principles of co-design.

Sarah would never put herself in the position of trying to own the project, as far as she is concerned she is just there to share tools and build on what the participants are already doing. She explains, from a co-design point of view, "… *the organisation has to own what they are doing*", she feels that if there is ownership from an external partner, then there is no longevity in the relationships and engagement around the project.

To enable feelings of ownership of the project from the participants, Sarah states that the important thing is to give them an activity to achieve something together collectively, "…*it might not be the particular artifact that they produce but the process that has enabled them to work collectively. This activity enables them to go on and do something else that might be more successful together*." She gives the example of working with a group of young people; Sarah's team decided to give them complete creative control of the project, they were involved in idea and content development, through to editing and final production of the program. She explains that the traditional experts in media production were *"kind of horrified"* because the quality of what was produced was not to the standard they were used to. But for Sarah, she believed that the authenticity *"was like 260%."* As the goal of the project was to produce something that reflected social cohesion in culturally diverse communities, "… *we felt to get that level of authenticity the only way you could get that was to enable the young people to make it themselves, for themselves, for that purpose."* The position that the creative director took was only to help them to think about what they were doing, not to make decisions. Sarah describes this as a scale, and in this case, the 'expert' (creative director) makes a decision about *"where they want to let people be."*

Oliver describes his process by using a metaphor to illustrate his self-trust when navigating uncertainty. He says its like, *"…being in a boat riding up a stream, not knowing where the stream is going to and getting used to trusting*

myself to have a sense of where I want to go with things." There are clues within the metaphor he used that indicate some expertise and familiarity with the process. The boat is riding 'up a stream' which suggests it is moving against the current – so he is not drifting and has some means of propulsion moving him upstream even though the destination or immediate surroundings are unknown. He describes that as getting used to trusting himself and having a sense of where he wants to go which would indicate that he has been in this situation before and has gained experience of the process.

Conner is not convinced that just any audience or set of participants can cope with a design process being handed over to them if they have no prior experience of working in that way. He thinks that designers possess a unique skill set that is necessary to the process, he questions to what extent people are naturally capable of applying that skill set if they are not at least semi-experienced with design work. He continued to reiterate his inexperience in the process and remains hopeful that through observation of an experienced facilitator he may be able to transfer that knowledge more effectively with the same set of participants. Conner felt like his learning was around setting up the projects and creating the right conditions so that participants feel comfortable both with knowing what they are doing and engaging with it.

Theme: Modes of Interaction

Central Meaning

Situated early in the exploratory phase of a project, the design process utilises a combination of research and idea generation methods. These generative methods (tools and techniques) provide a way of making normally unobservable things visible and available for action and reflection in design. In contrast to research techniques such as interviews or observation, co-design claims to make the tacit and implicit aspects of people's lives accessible through the use of these generative design methods. When designers/facilitators make decisions about which design tool to use an understanding of the context of the project and problem framing is considered equally important as the design tools they have selected. This understanding emerges out of a strong awareness (by interviewees) of the interconnectedness of methods, mindsets, and context within a co-design project. As these are not

fixed or static, there is a profound recognition that the design process needs to adapt to the context and environment to which it is applied. Further, in practice, there is a concern (from interviewees) regarding commodification of design thinking or co-design methods (by design studios or interested businesses or organisations) where the relationship between mindset and methods is ignored or not properly understood.

Individual Variations

When Helen was asked by the interviewer about the tools and techniques that she felt encouraged creative activity, she outlined that her approach is to let the participants, "*...just do it, have them try out the tools and not to talk on any sort of theoretical level about these techniques*". She observes that at the beginning the participants can be quite reluctant and then, she adds, *"…something switches inside their heads and they seem to really enjoy it."* Helen and her team try out all sorts of different tools and techniques, which are not fixed to any particular formula. She lists ways that participants create solutions, using pens, paper, play dough, plasticine, role-playing and lots of post-it-notes. To prompt conversation they use 'share it stations' which she describes as being easily removable, image-based narrative tools. These were developed by designers and consist of drawn and photographic images with Velcro backing that can be attached to a clothesline. She gives an example of using a set of pictures to engage with the patients in the acute mental health unit, '*…these design 'tools' were already made and designed for them to engage, identify and reveal truths around their own situations."*

Conner works in the area of customer experience design, his business has over time built up methods that they use as part of the design process. They pick from what he describes as "*…quite a messy toolbox of tools,*" and they adapt them on a project-by-project basis.

Marcus reveals that in his view there is a lot of hype around tools and techniques, and they can be packaged and used as a way for individuals or organisations to differentiate and sell themselves based on what methods they use. He believes that problem framing is more important than technique. "*If you know how to frame a question or a problem then you can fashion your own*

tools that are responsive to the situation, you become less limited in what you can use." For Marcus framing is about seeing the whole thing from start to end as a journey, understanding that learning and discovery occur both in the research phase at the front end and in the design development process, "*…while you are prototyping you are still learning.*" Marcus maintains without this understanding of how to frame a design problem the tools are meaningless*.* He states "*…once you have a basic understanding of what you are trying to achieve and the kinds of interactions you want in idea development, you may have the ability to draw on knowledge from other disciplines.*" He believes co-design has, because of its emphasis on relationships, the potential for longevity as long as people are not continually re-framing and differentiating it as a set of techniques.

Sarah talks about using 'tools' more conceptually than practically "*…you start by making ideas tangible and visible, to make things available for critique,*" and makes a strong point *"…we can't get to the answer by sitting around and talking we have to be doing and testing"*. She identifies these as the fundamental principles that underpin design practice for her. Sarah works with techniques such as scenarios, prototyping, journey mapping, and personas. Although she finds personas useful, she also identifies them as problematic and quite dangerous. (Sarah does not elaborate on this in the interview, but this comment points to the observation that it is limiting to make assumptions about a group of people based on a representation of one type of person). She still looks further than design now for extra richness, as she does not believe design does well in a social context around relationships.

As part of her role as design coach Sarah encourages people to develop a "designerly practice," she uses this term to describe techniques that design practitioners are trained in. She identifies these techniques as making ideas visible with sketching, prototyping and the practice of critique. To describe this more deeply she speaks with some passion about the work of Donald Schön, which she views as a really fascinating examination on reflection in action. Sarah speaks to this idea" *you know you draw a picture and it talks back to you, and he (Schön) exposed that designerly practice.*"

Oliver has had experience in developing design tools and believes that there is nothing magical or mysterious about it. He sees them as a set of standard project design tools. He is not attached to one fixed idea or technique, he describes himself *"like a magpie,"* and he collects stuff and discovers possibilities as he goes. He is critical of how he sees the service design industries dependency on *"having the right toolkit"* it really *"bugs him"* because he sees it as "…*just filling in templates and not going into a hardcore enquiry of the complexity of implementing a service model in the community*." To illustrate the complexity of implementation, Oliver gives an example of a project he worked on. The goal of the project was to deliver a service and a toolkit designed to enable conversations with people on death and dying, preparing wills and sorting out affairs before they went to the hospital. This was identified as a significant problem because if the patient's wishes were not clear, it potentially caused tensions in families. After conducting patient feedback interviews Oliver and his team realised that in addition to developing the service and toolkit they needed a person connected to the project that would teach people how to use it. In this implementation phase, he realised he could not just hand over the tool. Defining and communicating the role that a person would take within the project proved to be important as, at first, he saw it as a role that would facilitate conversations, but this ended up attracting people who were interested in therapy. He was very clear that this would not work, as it was not designed to be a therapeutic tool. He stepped back and redefined the role as a communicator role, rather than a facilitator or anything that would suggest therapy or counselling even though that person needed to have *"relatively deep people skills."* From there he created a template for the toolkit and piloted it. The result was a package that communicators could take into any kind of community and help people *"get their heads around death and dying"* and how to manage it proactively. He re-iterated that implementation of the co-design project requires a particular skill set and requires both a person and a toolkit to support it. That person would show people the toolkit, work through it with them covering any particular issues of that community and then step away leaving the toolkit in place.

Theme: Navigating Dissonance and Ambiguity

Central Meaning

Creativity requires the ability to exist in ambiguity and tolerate disorder. The ability to tolerate ambiguity is considered essential in creative problem-solving. Navigating this period where problems and solutions are tangled, emerging and obscured, it is unclear for a time how the pieces are going to form a solution. This period of ambiguity can be uncomfortable and anxiety provoking for some participants and enlightening for others. Interviewees describe holding participants in this space while connections are being made and understandings emerge.

Individual Variations

Conner described the reactions of the students as *"…quite stunned"* when he engaged them in a feedback session. He felt that there might have been tension for them between the more traditional scaffold approach to learning and a design-led process of learning by doing and discovery, observing that *"…being given so much power and involvement in creating something that they might use was unfamiliar to them."* Further, he questioned whether improved facilitation and scaffolding of the process would have been enough to break through that barrier. He felt like they were *"not mentally in the right place"* which he concluded had limited the value of what they did. And although they seemed to view participating in the design project as a positive experience "*…on one hand they felt it was quite cool,*" his general observation was that they did not seem to know quite what to do with it. He acknowledges that his experience is limited in the process, but he is left wondering how much this limitation has to do with the people you are working with and how flexible and open they are to the process. He questions the education structures that the students are coming through, to him "*they seem dependent on these structures they are given, and as a consequence, their interpretation skills seem limited.*"

Johanna emphasises the importance of the learning mindset in the generation of new ideas and new perspectives. She describes the learning mindset as "*embracing ambiguity,*" "*taking off the expert hat,*" "*being curious,*" and "*being*

ok that you have no idea what the problem might be let alone the answer." She then contrasts this with the fixed mindset; *"…the fixed mindset is ruled by fear of failure it's about setting up rules and following them, it's about jumping through the right hoop."* She sees examples of this fixed mindset within the education system concerning creativity and originality *"we kind of beat it out of them."* However, she points out that the advantages of the fixed mindset are that it is excellent for perpetuating the status quo and making an established system work well.

Johanna points out the importance of both of these mindsets, but emphasises the importance of the learning mindset over the fixed mindset *"if you want to innovate, if you want newness."* She speaks of a kind of instinct and uses the idea of an entrepreneur as someone who might possess this instinct and maintains it because they have not been through training in "fixed" mindset such as participating in higher education. She believes that because of this, entrepreneurs have their creativity intact, so, therefore, have a higher tolerance for ambiguity.

Johanna identifies that most people have an orientation for one mindset over the other and that often people are situated in a workplace where their particular orientation is most useful or suited. She believes it is crucial for both mindsets to have empathy toward each other as they both bring value to various situations and they can learn from each other *"they are not freaks and I am not a freak we have all got great stuff to offer."* Johanna introduces the notion of "the battery hen" and "the feral goat" to characterise the traits of fixed and open mindsets. The battery hen's skill set, according to Johanna, does well working within the system and the "feral goat" craves new and novelty. Johanna places herself in the feral goat category, as to her, change is exciting, and she does not find it threatening, *"I love to learn, and I love newness."*

Johanna believes that Government organisations value the fixed mindset over the open mindset. Johanna is enthusiastic about getting these types of people out of their comfort zones, *"it's like guys you are going to be outside your comfort zone, just roll with it for a bit and see what happens."* She strives to unlock the creative and learning mindset and to get people comfortable with it.

In Johanna's experience, most people get "infected" by the experience of working collaboratively on a creative project, and some even describe this shift to working with an "open mindset" as "a life-changing event." She is also aware that it does not suit everyone. Some people can find it weird and horrible and prefer to resume the fixed mindset they are accustomed to. Johanna describes that for her creativity feels like a virus, connecting people with their natural creativity and generosity.

Marcus identifies the importance of the "process of discovery" to bring value to a design approach, he explains, *"the mode of discovery allows for exploration into what you don't know as opposed to confirming what you do."* Marcus observes that it can be especially hard for some participants he works with, who have expertise in their own fields, to develop a new mindset of listening and not advising. He observes that these people seem to find change hard, as they are moving away from feeling confident and comfortable to a new way of working where they are being encouraged to discover a new way of thinking about something or considering a new perspective. He identifies that this creates a tension for him as such people can dismiss experiences that might be significant to others. This observation keeps him alert to guiding people through to a more open mindset.

Confusion can occur between different disciplines working together, as words sometimes carry different connotations and associations. Sarah spoke of her "mild aversion" to the word "creativity' as it is most commonly linked with the idea of "art practice." She wrestles with her response to the word 'creativity' and her association with the arts and crafts idea of creativity when for her there is much more to co-design than being creative. Her concern is that that differing levels of creative engagement can be undervalued because of the association of creativity to 'art practice' and can lead to a narrow view of processes and outcomes. She acknowledges the importance of creating a space that is creative, so, therefore, defines creativity with a 'small c,' not a 'big C.' She places more emphasis on participation.

When Helen was asked (by the interviewer) about her views on creativity in the context of co-design practice, she responds, "*…being comfortable in dealing with uncertainty and that comfortableness is ok, but we don't really go to much into emphasising that everybody is creative.*" Helen makes a point not to emphasise creativity as a process in a medical setting as the people that work in that environment tend to work from a clinical model. She speaks of "*…working at a practical, not theoretical level,*" where participants try out a variety of prototyping materials, different kinds of approaches and just having a go. She finds that at first, they can be quite reluctant, but in time they get into it and really enjoy it.

In Helen's experience, as participants come from a *"mix of all trades"* confusion can occur around language*.* She finds,"*…if people are locked into very set methods there will be more difficulty with different terminology,*" and she reports "*…having a few battles with people around method and language*" She explains how she understands the terms 'engagement' and 'immersion', and feels that use of these terms can confuse people. Helen offers that the term 'immersion,' when used in a user-centred context, describes the designer (or researcher) gaining understanding by being immersed in the experience of the user. They interpret the collected data to identify the points of engagement between the user and the product or service. Whereas the term 'engagement' used within experience based co-design, requires the users themselves to discover the points of engagement by participating in as many aspects of the design process as possible.

Helen seems sceptical that design actually engages with people. She emphasises the importance of equal partnership as an underpinning philosophy of experience based co-design as an approach that does engage. For her, in an ideal world patients and families would be involved in the set up of the project, design, and methods used, identification of significant touch points and implementation of outcomes.

Oliver poses questions about the effectiveness of co-design as a method for solving wicked problems. He asks,*"...why would we succeed more than anyone else, they are wicked problems, we might not?"* He reflects "*it might*

help a bunch of people see a bunch of really deep stuff, it might help a bunch of people put some amazing stuff in place, but like any method or process some of it will work, and some will fail." Oliver brings up the point that co-design is most often used in complicated, marginal social problems, he feels that within that context there is a feeling from some people about being on a mission "*we are on a mission, and if you say we are not, people will tell you yes we are, so it is obvious*". He brings up an example of co-design with homeless people, "*I don't see homeless people disappearing as a result of it, I see some of them having a better experience as a homeless person,*" He points out here that the motivations of a government organisation may differ from the motivations of the co-designers. The government organisation is trying to use it to get people off the streets, that's what the project is about, co-designers might have worked on a different model, "*its not pure, so where does that leave co-design, where does that leave homeless people and how much marketing around that can be believed.*"

Theme: Considering the Transformative Experience

Central Meaning

Situated early in the exploratory phase of a project, the design process utilises a combination of research and idea generation methods. This use of design tools within a creative workshop setting enables participants to imagine themselves in different kinds of future situations. To do this, the participants need to access and imagine their own life experiences and expectations. Going through a generative design process can provide new perspectives and understandings that were not available to the participants previously. For both the participants and designer, the experience has the potential to be transformative and frequently is.

Interviewees bring to light various instances of how they perceive the nature of the transformative experience within their practices. These vary from intensely personal, less personal to organisational and not engaged or not open to the experience. Intensely personal involves participants from vulnerable communities, such as youth and mental health. This intensely personal experience has the potential (by revealing these tacit or implicit aspects of their

lives to themselves and others) to affect participant's lives more dramatically. This can carry both degrees of risk and powerful insights.

In contrast, other participant's experience of a co-design project may be less personal and therefore less personally impactful. But they have still experienced some new insight or a deeper connection to the project and other participants with whom they are in collaboration. There is a third situation, where interviewees encounter significant barriers from the participants. In this instance, the participants appear unwilling or unable to enter an exploratory process fully.

Individual Variations

Sarah is acutely aware that the work that she does centres on issues that affect people's lives and because of that can carry a degree of risk. Sarah highlights areas that are personally challenging to her "*…there is mental health stuff, and it's these young peoples lives, and there is a degree of risk in the work, if you know people get upset and you may have an event that might trigger someone, you know it is really real, it's really, really real*". She believes that actions taken in co-design practice could have a profoundly lasting effect on some participants, "*…so in that sense it is transformative, it is really powerful, and you are in very vulnerable spaces.*"

Helen has the opportunity to work with generative tools designed by external design services. She finds them to be a powerful way to understand differing perspectives of staff and patients within the hospital. In the example she uses, the tool was designed to work in a public spaces project, which consists of images to prompt feedback from staff and patients situated within hospital foyers. One of the pictures most frequently selected was an image of a clock. The responses to the image were polarised; staff picked the clock because for them everything races by and they never have enough time, and the patients chose the clock because time goes so slowly and they get bored with nothing to do. As a result, Helen senses there has been a shift in attitudes over time around gaining access to these older patients in mental health units. Previously staff members had been very reluctant to grant access and were protective of their patients. Helen and her colleagues were not even able to go in and

observe. As a result of this way of working, staff now allow them to go in, are shown around, and are able to use generative tools.

Both Marcus and Conner encounter situations where there were significant barriers from the participants themselves. They find participants to be either unwilling or unable to engage in an exploratory process. Marcus reveals that some participants were reluctant to move away from the knowledge that they were confident and comfortable with ideas that were new or emerging. He feels some of the participants are reluctant to listen to perspectives from other participants and as a consequence, "*…they can dismiss experiences that might be significant to others.*"

Conner questions whether improved facilitation and scaffolding of the co-design process would have been enough to break through the barriers he experienced. He feels that the school students he was working with were not in the right place mentally and he thought that that limited the value of what they did.

Oliver describes a personal transformation from defining himself as an introvert to learning to be more extroverted. Working with co-design methods, he finds he is spending lots of time with people and through that exposure his thinking shifts from more analytic to more holistic. As he becomes more involved in how 'social stuff' works he is able to perceive himself shifting from his original position of an introvert to a new, more extrovert way of being.

Marcus expresses appreciation in having the opportunity to work with people out of his area of specialisation. He finds it refreshing to be exposed to different perspectives and viewpoints and finds this diversity of experiences uplifting and energising. Similarly, Sarah observes that when a group of people come together with no idea of where the process is going to take them, she finds that amazing things happen. She feels that to be very affirming and the action of letting go and giving people the space to explore is frequently transforming, "*...what can happen when you give people some space and tools to enable them to create, amazing things can happen.*"

When Sarah was asked (by the interviewer) if she felt personally transformed by her work as a facilitator in co-design methods, she responds that she is, in *"radically different ways."* She is grateful for the generosity of the participants she works with, and their willingness to share and contribute stories. In some instances, the stories they share are deeply traumatic and emotional, particularly around addiction and recovery. She finds this to be very humbling, and she feels very privileged to receive these stories.

Theme: Working within the whole environment
- constraints and opportunities

Central Meaning

This theme is concerned with the understanding of how the context of the co-design project affects the design process. In particular, the influence of factors such as, time, resources and locations that are inherently situated in co-design projects. These factors can result in varying scales of how co-design methods are applied from an intention through to fully implemented projects. There is also recognition of other contributions that could be made from different disciplines and practices outside of design that has not as yet been linked to design practice.

Individual Variations

Johanna is part of an organisation that is set up, with government support, to experiment with methodologies of co-design. The objectives are to deliver better value, socially and economically, than the way that government services are currently being provided. Johanna believes that there is a lot at stake for government organisations if they evaluate and report back on projects that did not work because they may lose their funding. She describes this as, "…a *fiction to government delivering great services*." According to Johanna, longitudinal studies report that nothing is changing and that persistent social problems continue despite all the programs, ideas and money that have been aimed at tackling such issues over the years.

The projects Johanna works on are situated in the area of social impact. The

focus is on understanding *'lived experience'* within the context of including people *'as experts of their own experience.'* Her organisation joins this understanding together with community-led initiatives that are already happening, in what she describes as a kind of collective impact sense. Johanna identifies this area of social impact as a slightly different part of the design field; "*you are designing systems that support experiences.*" Due to the increased emphasis on end-user participation, Johanna believes that there is some change to people's perceptions of what design is or what a designer does. She considers the growth of service design, as another strand of design is starting to shift these perceptions.

The organisation that Johanna is involved with is set up to discover the value of using co-design methods. The organisation invites people into the organisation for four months. Johanna's role is to get the resources and political buy-in to make it possible for participants to come in for that length of time and to shield the people participating in the process from the politics that might surround the projects. She believes that this is necessary so that new ideas can be explored creatively away from the everyday demands and expectations of their work. Johanna explains it as *" ...following the theory of innovation, where you create conditions outside of the mother ship and provide a neutral space where the usual rules do not apply*". After this period of creative discoveries outside of their organisations, Joanna identifies the challenge of finding ways for participants to bring these new discoverers back into their own organisations. She outlines a process whereby participant's experience a mindset change, or discover a different way of working together, then they return to their organisations as *'change agents.'* They create change by continuing to work within.

Marcus and Oliver work with a service design model within local government organisations; they see co-design as an integral part of their way of working but encounter significant barriers with organisational structures in implementing co-design methods. For Marcus creating conditions for creativity ideally involves working with a team of participants over time. For him, this process requires space to allow participants to ease themselves into a creative mindset, where they enter a mode of free association which allows them more

freedom to experiment *"…run off in tangents, be a bit wild."* Because of the way the organisation Marcus works for is structured this ideal situation is uncommon and his time with a team is restricted often to day workshops. As a result of this limited time period he recognises not much that is new happens "*…they end up and writing and thinking what they think is sensibly based on their day job.*" Marcus feels that if he had been given more time, he could have done something with them and expresses frustration at the feedback from managers who are only responding to the outcomes of a day session. The managers report that the results of the co-design process are not that different from the ones they would typically use.

Conner is still in the experimental stages of working with co-design methods and is adopting them as a progression of the work he does in user centred design with clients who are open to this process. Conner identifies that a congruency with the schools view on education and the direct student involvement in the design process was an essential factor of the project going ahead.

Helen works in the health sector as a project manager in co-design on service improvement projects. She identifies 'time' as the main barrier to her practice as co-design "*is seen as a very time intensive model if you follow the whole model right through.*" Also, she observes that research in hospitals tends to be very evidence-based and although not unheard of, experience-based co-design is fairly new. Within this environment, co-design can be a challenging method for people to adopt when they are more accustomed to goal-orientated outcomes *"...it can be difficult being unsure of outcomes when you are hired with funding attached."*

For Helen, such limitations are not ideal and sometimes she has to accept that co-design methods have not really been incorporated into a project. Previously Helen reports that she used to get quite frustrated with this, now she values even small shifts in thinking, and opportunities to educate people on the methods even though it is not really co-design in practice.

Helen brings up the tendency for design to be action orientated; she sees this as a potential barrier to engagement with participants. She feels that within a hospital context this tendency toward action is unrealistic because of ethical considerations when speaking with patients. Given that Helen works in a hospital setting, she understands that the process around ethics can cause delays and lead to frustration as it often goes through to an ethics committee. However, she feels this must be even more frustrating for designers because it is not something they usually need to consider.

"*…a quick piece of work and the designer said lets go and talk to people and take photos and I said well we can't actually take photos of patients or staff …you can take them of staff if they give permission …with patients there is a process you have to go through to get consent you know you can't just go around with your camera, and I felt a bit like I was stemming him a bit saying no you can't… but there is a tug between doing things quickly.*"

Because ethics is not commonly embedded in design, designers (especially students) do not often consider it as part of the process and assume that they can go in and talk to people, take photos, etc. Helen finds she has to inform them that they need permission. Because of this consent process, there is a tension between being agile in design and ethics in the hospital administration. Because of considerations like ethics and time constraints within the health sector, Helen does not feel like there is any external training in co-design methods that fit particularly well. She is aware of the lack of training available.

Sarah also sees the lack of ethics embedded within design as problematic especially within the context of the broader design discipline where currently design thinking practice is seen as another vehicle for social change. "*A lot of people have been using it (design thinking) in that way, and now governments are investing in it, and designers coming out of design schools want to change the world with design.*" As a consequence Sarah believes that there is a massive opportunity for ethics to be incorporated into design education, she expresses some dismay as she thought that this would be a bit further along by now. She felt that bolstering education with more social process stuff could help.

This leaning toward the value of participation is explained in Sarah's concern with the social process. She finds that sometimes the idea of creativity simplifies what we mean, "*excellent ideas are not - they are not what is holding us back from good social change, much more stuff than that comes out."* For Sarah, "*co-design enables a process to engage in the realities of what it means to be human, what we are like*, *it is more about what the work enables in people around building elasticity, openness and risk-taking than the project itself*" (When using the word risk Sarah is careful to explain what that word means as she feels it is often overused. For her it is about giving people freedom to be genuinely experimental).

She emphasises this again, "*within the co-design process you are working with humans and talking about humans, so there is a lot more relationship work than project work. In this context, the co-design process is used as a vehicle in contrast with traditional design where the emphasis is on the project outcome, materials and technology.*" Concerning this Sarah speaks of looking wider than just design processes, she does not think that design does so well in a social context around relationships. She gives examples of systems theory, complexity theory, community development, and Kopapa Maori to flesh out the areas that she feels design does not do so well in like evaluation and social impact. She is looking for *"another richness that could be added."*

When Sarah was asked (by the interviewer) on the extent that a co-design process could effect change, she felt like that was a big question. For her, it was about the people involved in making decisions and reflecting on where the work needs to happen to effect a change. Additionally, it's about the environment that supports or fosters resilience so that people feel capable of making a contribution to bring about change. She feels her work focuses on building the resilience no matter what the project is.

Oliver speaks of being interested in the idea of wisdom as he ages. He ponders the value of wisdom as a way to navigate through complex problems and how wisdom might fit with co-design methods. However, he believes that its unarticulated territory and it has the potential to get a bit

freaky or perceived as new age. For him it brings up fundamental questions " *…what is a lived experience? … What is that discovery of someone else?"* In part, to answer his own question, he reflects on the idea of the western perspective of creativity. Of how a constructed team contracted to work on a creative project differs from the idea of a group of people creating together, he struggles with that idea and how to articulate it. When asked (by the interviewer) if he felt that there was an alternative cultural framework he might draw from, Oliver reflected on the Hui in Maori tradition. He described it as "*…in essence a group decision-making process.*" He outlined this experience "*…you listen to people carefully, you think about it, reflect on it and then stand up and respond and then you sit down and when you have said it, there is no litigation.*" He describes it as considerate and very secure.

Chapter Six: Considerations of the findings

The purpose of this research study was to explore the lived experience of professional co-design practitioners engaged in their practice. The previous two chapters presented the detailed research findings using descriptive phenomenological methods. Chapter four presented the continuous descriptions and background details for the six interviewed participants, Chapter five presented the general structures for each of these core experiences, with a description of the identified central meanings and individual variations. This chapter compares conceptualisations from the literature review with the lived experience of co-design practitioners, describing the complexity of enacting co-design in practice.

In broad terms the literature provides descriptions of co-design that include; involvement of designers and users in partnership who are exploring, envisioning and developing new solutions; a political view of empowerment by giving voice and tools to those not usually involved in design development; and a tool or process for collaborative engagement. The conceptual models developed by researchers in the fields of co-creation, Sanders & Stappers (2012), and co-design Burkett (2016), illustrate a holistic understanding of mindset, method and tools of co-design practice. The Sanders & Stappers (2012), model provides a generalised framework for co-creative practice applied in social and business sectors, outlining possible positions of engagement defined by a project's scope and desired outcome. Burkett's (2016), model provides an integrated description of attitudes, attributes and functions of co-design specifically practised within the social impact sector. Both of these models are useful frameworks for understanding and situating where and how a co-design project is implemented.

This chapter considers the findings of this research in light of the above conceptualisations found in the literature. These conceptualisations are compared and contrasted with the following seven interpretive themes that emerged in the Individual and General Structures: 1. Decentralising the 'Expert', 2. Emphasising Relationships, 3. Allowing Participation, 4. Selecting Modes of Interaction 5. Navigating Ambiguity and Dissonance, 6. The

Transformative Experience, 7. Working with the whole environment, constraints and opportunities.

Decentralising the 'expert.'

The notion of a particular kind of mindset toward the practice of co-design stands out significantly in co-design discourse; the literature describes it as a particular kind of attitude that practitioners adopt (Burkett, 2016; Sanders & Stappers, 2008). This mindset of co-design establishes a view or philosophy of practice that is most often implemented in the societal or pre-design quadrant of Sanders & Stappers model (Figure 3), where situations and problems are 'wicked and complex' (Cross, 2006) and the participant group is varied. The general and individual structures presented in the previous chapter highlight the complexity of enacting these attitudes in practice depending on where their co-design projects are implemented and situated.

The literature reports that the redefinition of the role of the designer is integral to the view or philosophy of co-design. The designer's role shifts from an expert of the design process to one who facilitates, guiding participants throughout the co-design project. As a consequence, both the client and designer give up full control of the designed outcomes. (Sanders, 2005; Sleeswijk Visser, 2009).

Accounts from the general structures outline the importance of empowering participants in co-design activity, so they feel able to participate in problem-solving activities together.

Burkett (2016) identifies inclusivity as one of the fundamental attitudes enacted in co-design practice. Within this context, it suggests reciprocity and equal agency between all of the participants, including the co-design facilitators. The literature reports that facilitators establish a collaborative partnership with participants by working to enable them to creatively contribute in design development and have input in determining directions and outcomes of the project (Sanders & Stappers, 2008).

The use of generative tools to engage participants in creative workshop sessions is shown in the literature by many case studies (Sanders & Stappers, 2012). In contrast, accounts from the general structures revealed unique perspectives on the attention to relational interactions between practitioners and participant groups that is not apparent in the literature. The following points discuss in more depth what it means for co-design practitioners to be engaged in 'relationship work'.

The extent to which practitioners are responsive and attuned

Dewey (1933) introduced the concept of "reflective conversation with the situation" as a way for practitioners to build knowledge of what they do in practice. Schön's (1983) investigated reflective practice focusing on how professionals become aware of what they implicitly know about their own practice. Telier et al. (2011), extends the position of the reflective practitioner to include interaction with a wide variety of people on a collaborative project. It was evident in the general structures that practitioners experienced being both attuned to the participant group and their inner states. The experiences of practitioners Sarah and Oliver in the individual variations described situations of maintaining an awareness of the participant group's state of mind and being vigilant for reasons why the participants may not feel comfortable or feel unable to participate creatively. In addition, they spoke of being attuned to their inner state, awareness, perceptions and judgments, of being aware of how their inner state may affect the process and the participants. Oliver described this internal awareness as vigilance; he was concerned with examining his perceptions and sensations attempting to be "in the moment" when interacting with participants and the project work. Some authors argue that Schön's observation of reflection-in-action is not achievable (Moon, 1999) as it is not possible to distance oneself from the lived situation to reflect in the moment (Ekebergh, 2007). However, these in-depth descriptions from Sarah and Oliver indicate a layer of practice attuned both to their reactions and perceptions and to the state of mind of the participants with whom they work.

Participation in creative design development

It is argued that creativity is an innate human ability that people can practice and develop (Maslow, 1963; De Bono, 1977). This view is supported by research in contemporary cognitive psychology (Feldman, Gardner & Csikszentmihalyi, 1994). Sanders and Stappers (2008) distinguish four levels of creativity in their framework: doing, adapting, making and creating. These levels identify and acknowledge the creative involvement that people can engage in when undertaking a co-design project. These frameworks provide guidelines to facilitators about the appropriate tools or techniques for various contexts and situations, but they do little to help the co-design practitioner understand the experience of deploying this breadth of practice: how they decide which are the relevant experiences, and which tools and techniques of co-design practice are the most appropriate ones to use.

Design epistemologies can be situated within deterministic, constructivist and the artistic or Arts-based ways of knowing (Feast, 2010). Although co-design adopts a constructivist approach, evident from its iterative approach of discovering and creating meaning during the design process, confusions are apparent when seen with interviewed practitioners' ambivalence and reluctance to use the term 'creativity' with participant groups. Sarah and Helen say that in their practice of co-design they place less emphasis on creativity, and more on participation. They believe that because creativity is most often linked to art practice, it gives a limited or narrow view about what creativity is and how it can be applied. Helen feels that confusion that can occur between different disciplines working together, as words sometimes carry with them different connotations and associations "*…we do not go too much into emphasising that everybody is creative*". Sarah has a "mild aversion" to the word 'creativity' as it is most commonly linked with the idea of 'art practice'. Additionally, Marcus feels he would prefer not having external creative experts come in because he fears they may shut down to the creative process. In general, practitioners feel that the connections made between creativity and art practice are not helpful for non-design participants who may feel tentative about the creative aspects of the project. These perceptions indicate that constructs of creativity and differences in the epistemologies of design are still

poorly understood in western culture as they are still firmly linked to the artistic or Arts-based way of knowing.

Human experience, design and the considerations of ethics

The literature reveals discussion amongst authors regarding designs' consideration of human experience. Some claim that design lacks a rigorous approach (Whent, 2015), and look to disciplines outside of design, such as psychology and phenomenology to include considerations of human experience more effectively within design development (Kouprie & Sleeswijk Visser, 2009). However, others argue that because design is already situated in collaborative, interconnected environments, it is by nature inherently social (Steen, 2013) and have a well-developed knowledge base around participatory practices (Harder, Burford & Hoover, 2013; Steen, 2013).

Within the general structures, practitioners consider incorporating, empathy, wisdom and ethics, areas traditionally outside of design, into their professional practices to deepen the human connection.

Both Sarah and Helen feel that design practice is not very good at considering relationships between people. They find the lack of ethics in design problematic in the context of broader design disciplines, where practices like design thinking are seen as a vehicle for social change. Helen is concerned that because ethics is not embedded in design, designers and design students often do not consider ethics as part of their working process. *"…they assume that they can go in and talk to people, take photos."* Helen finds she has to inform them that they need permission. Because of the consent process, there is a tension between being agile in design and ethics in the hospital population.

Practitioners generally felt that it is going to become increasingly important for design disciplines engaging in areas of social impact to incorporate ethics into design and co-design education as these disciplines increasingly move into areas of social process.

Conclusion

This chapter has introduced further insights into the nuances and complexities through descriptive phenomenological accounts of the 'lived experience' of the co-design practitioner. Further, it compares and contrasts concepts from pre-existing frameworks found within the literature with accounts of what it is actually like for practitioners in practice. This research contributes by providing a deeper understanding of the designer/facilitator capacity to act in varied and contradictory contexts and situations.

The next chapter concludes with an explanation of how this research contributes to the knowledge of co-design research, outlines the strengths and limitations of this research project and proposes ideas for further research enquiry.

Chapter Seven: Conclusion

The critical review of the literature presented in Chapter Two addresses the broader issues that impact emerging user centred design practices. The review concludes that there is a lack of disciplinary frameworks that clarify the position of the user. As a result of this deficit, designers and researchers are misinterpreting and misapplying methods and design tools. This misapplication is considered to be a consequence of taking methods from one field of research and applying them to another without consideration of underpinning theories and philosophies of practice. To illustrate further, user centred design fields such as, service design or experience design have no clear guidelines that specify the position of the end user or the role that they play within a collaborative project.

In contrast, co-design has emerged from these practices as a unique form of user centred design. Co-design proposes that end-users and designers act as equals, in partnership, in all phases of the design project. Co-design seeks to redress the tendency of designers to act for others. It aims to change the position of users from information sources for designers to active participants in design.

Overall, the review of the literature indicates that the voice of the co-design practitioner is missing. As a result, the practice of co-design is still open to misinterpretation and misunderstandings. Consequently, this research aims to investigate the 'lived experience' of co-design practitioners, to better understand their role in the various contexts and situations within co-design practice.

As outlined in Chapter Three, this study uses a descriptive phenomenological methodology to explore the experience of the design practitioner facilitating co-design practice. This approach was used to conduct detailed interviews with six practitioners to understand what was unique or contingent to them personally. Chapter Four presents the detailed and analytic exploration of these six individual descriptions of the phenomena under investigation, and the

core constituents of the experience of co-design practice were distinguished for each participant. Chapter Five reveals the essences or invariants common to all experiences under investigation and on the careful analysis of the narrative descriptions from the interviewed practitioners, the core aspects of their practice in collaboration with end-user groups and other stakeholders are described. Chapter Six contrasts the participant's general structures and individual variations with relevant literature.

Contribution to knowledge

This thesis adds to the body of knowledge by offering unique insights from the practitioners involved in co-design practice and by proposing the visual framework, presented on p. 86 that captures the complexity of their lived experience. This framework emerges from the detailed descriptive phenomenological accounts of practitioners in Chapter Five. It visually summarises a continuum of various and contradictory positions that a co-design practitioner experiences within their practice. By comparing and contrasting the essence of the experience with insights in the literature review this research also comes to the following conclusions relating to the critical dimensions of the framework.

Positioning Expertise

The literature and the general structures reflect similar findings concerning the position of expertise. Whereby the interviewed co-design practitioner's view of their position as a facilitator, in partnership with participants, is consistent with reports from the literature. However, accounts from the individual variations in Chapter Five, question the extent that participants can apply a design skill set if they have no previous experience.

Emphasis on relationship work to build participation with participants

A significant insight revealed in the general structures is the attention to relational interactions between practitioners and participant groups in order to engage and build participation. In particular, the extent to which practitioners are responsive and attuned to the participants and their own practice. This responsiveness within the design process contrasts with the focus on outcomes and project work often emphasised in case studies within the literature.

Epistemology of design research

Despite the available frameworks in the literature that outline differing levels of creative engagement, the general structures revealed confusion between the epistemologies of design research and art practice. In practice, such misunderstandings create tension for the practitioner and barriers for some participants, who do not see themselves as creative.

Inclusion of ethics

Discussions within the literature consider the role of design and the participating end user. Findings from the general structures specifically highlight that it is increasingly vital for design disciplines to incorporate ethics into their general practice when they engage in areas of social impact,

Adapting to context

The separation of design tools from underpinning theories of practice is a cause for concern for many theorists and practitioners in the literature. Perspectives from the general structures reveal a strong understanding, by practitioners, that a co-design process is not static and that generative design tools need to adapt to the context and environment in which they are applied.

External influencing factors

The accounts of various external factors that influence co-design projects such as time, resources and locations from the literature are congruent with findings in the general structures. Practitioners employ varying scales of co-design practice, from the intention to adopt a co-design mindset, through to fully implemented projects.

Strengths and limitations to the enquiry

The key strength of this research is that the selected descriptive phenomenological methodology was very effective in addressing the research aims and research questions, as evidenced by the detailed structures that have emerged.

Additionally, the geographical location of Australian and New Zealand based practitioner research adds strength to this research by contributing a particular

perspective that reflects their location, in contrast to the majority of co-design research which has been developed in other contexts, including Northern Europe in particular.

The scope of my research involved only the co-design practitioners voice; it could be argued that including the perspectives of co-design participants could have been undertaken to provide useful comparisons in the findings. Also, concepts of participation were only considered from a design field perspective, contributions on participation concepts that have been developed in other fields might have provided valuable insights. However, both of these considerations were outside of the scope of this work but could be addressed in future research.

Concerning limitations, the sample size of six interviewed participants could be considered small. However, within the context of applying a descriptive phenomenological methodology, this size group is appropriate for a rigorous enquiry.

Further research

My research has highlighted a number of areas worthy of more investigation. A key area for exploration is the practical application of the visual framework that emerged from this study, which would assist in clarifying essential aspects of the co-design process to external partners, client organisations, students and new practitioners.

In addition, the application of a descriptive phenomenological methodology to a broader set of participants in order to explore the experiences of people who are engaged in additional aspects of co-design practice, such as end users, clients, organisations and other stakeholders. Use of this methodology could also include further exploration into the relationship between phenomenology and design in the development of design tools used in the generative design development phase of co-design.

Concluding Statement

Overall, this study concludes that co-design retains its integrity as a practice in the varied situations it is employed, as long as the practitioners stay connected to the underpinning philosophies and theories of effective co-design. The essence of effective co-design practice, informed by the lived experience of the practitioners is about; positioning expertise, placing emphasis on relationship work, finding a balance between allowing and guiding, building participation, selecting modes of interaction, navigating dissonance and ambiguity and working within the whole environment.

References

Abrams, M. H. (1953). The mirror and the lamp: Romantic theory and the critical tradition. New York: Oxford University Press.

Akama, Y., & Prendiville, A. (2013). Embodying, enacting and entangling design: a phenomenological view to co-designing services. *Design Research, 1*(13), 29-40. Retrieved from http://ualresearchonline. arts.ac.uk/7713/

Alexander, C. (1971). *Notes on the synthesis of form.* Cambridge, MA: Harvard University Press.

Australian Government. (2008). *Review of Austrailian Higher Education*. Retrieved from: https://www.mq.edu.au/__data/assets/pdf_file/0013 /135310/bradley_review_of_australian_higher_education.pdf

Australian Government. (2011). *Creative Australia Policy*. Retrieved from: http://www.nck.pl/upload/attachments/302586/creativeaustraliapdf2.pdf

Babbie, E. (1995). *The practice of social research* (7th ed.). Belmont, CA: Wadsworth.

Bailey, C.A. (1996). *A guide to field research*. Thousand Oaks, CA: Pine Forge.

Balbi, J. (2008). Epistemological and theoretical foundations of constructivist cognitive therapies: Post-rationalist developments. *Dialogues in philosophy. 1*(1), 15-27.

Beck, E. (1996). P for political? Some challenges to PD towards 2000. *In proceedings of the participatory design conference*. *9*(6), 117-125.

Becker, G. (2001). The association of creativity and psychopathology: It's cultural-historical origins. *Creative Research Journal, 13*(1), 45-53.

Borja de Mozota, B. (2006). The four powers of design: A value model in design management. *Design Management Review. 17*(2), 44-53.

Brown, T. (2009). *Change by Design: How design thinking transforms organizations and inspires innovation.* New York: Harper Collins Press.

Bruce, M., & Bessant, J. (2001). *Design in business: strategic innovation through design*. Harlow UK: Financial Times Prentice Hall.

Buchanan, R. (1992). Wicked problems in design thinking. *Design Issues*, 8(2), 5-21.

Buchanon, R. (2001a). Human dignity and human rights: Thoughts on the principles of human centered design. *Design Issues, 17*(3), 35.

Buchanan, R. (2001b). Design Research and the new learning. *Design Issues. 17*(4), 3-23.

Burkett, I. (2016). *An introduction to co-design*. Retrieved from http://www.yacwa.org.au/wp-content/uploads/2016/09/An-introduction-to-Co-Design-by-Ingrid-Burkett.pdf.

Burns, C., Cottam, H., Vanstone, C., & Winhall, J. (2006).*Red Paper 02: Transformation design*. Retrieved from https://www.designcouncil.org.uk/sites/default/files/asset/document/red-paper-transformation-design.pdf

Carpenter, D. R. (2007). Phenomenology as method. In Streubert, H. J. (Ed.), *Qualitative research in nursing: Advancing the humanistic imperative* (pp. 75- 99). Philadelphia, PA: Lippincott.

Chesbrough, H. (2003). *Open innovation : The new imperative for creating and profiting from technology*. Boston, Mass.: Harvard Business School Press.

Chia, R., & Tsoukas, H. (2002). On organizational becoming: Rethinking organizational change. *Organization Science*, *13*(5), 567-582.

Colaizzi, P.F. (1978). Psychological research as a phenomenologist views it. In Valle, R.S., & King, M. (eds.), *Existential phenomenological alternatives for psychology* (pp 48-71). New York: Oxford University Press.

Creswell, J. W. (2013). *Qualitative inquiry & research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage Publications*.*

Cross, N. (1982). Designerly ways of knowing. *Design Studies, 3*(4), 221-232.

Cross, N., & SpringerLink. (2006). *Designerly Ways of Knowing*. London: Springer-Verlag London Limited.

Cross, N. (2013). *Design Thinking: Understanding how designers think and work.* London, England: Bloomsbury Academic.

Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. St Leonards, NSW: Allen & Unwin.

Davis, M. (2008). Cover Story: Toto, I've got a feeling we're not in Kansas anymore. *Interations*, *1*(15), 28-34.

De Bono, E. (1977). *Lateral thinking: A textbook of creativity.* Harmondsworth, England: Penguin Books Ltd.

Dorst, K. (2011). The core of 'design thinking' and its application. *Design Studies*, *32*(6), 521-32.

Dorst, K. (2015a). *Frame innovation-create new thinking by design.* Boston: MIT Press.

Dorst, K (2015b). Frame creation and design in the expanded field. *The journal of design, economics and innovation. 1*(1), 22-33.

Dorst, K., & Cross, N. (2001) Creativity in the design process: Co-evolution of problem-solution, *Design Studies*, *22*(5), 425-37.

Dreyfuss, H. (1967). *Designing for people*. New York: Grossman.

Dykes, T., Rodgers, P., & Smyth, M. (2009). Towards a new disciplinary framework for contemporary creative design practice. *CoDesign, 5*(2), 99-116.

Ehn, P. (1993). Scandinavian design: on participation and skill. In D. Schuler and A. Namioka, (Eds.), *Participatory design: principles and practices* (pp 41–77). Hillsdale, NJ: Lawrence Erlbaum.

Ehn, P., & Lowgren, J. (1997). Design for quality-in-use: Human computer interaction meets systems development. In M. Helander, T. Landauer, & P. Prabhu (Eds.), *Handbook of human-computer interaction* (pp. 299-313). New York: Elsevier.

Ekebergh, M. (2007). Lifeworld-based reflection and learning: A contribution to the reflective practice in nursing and nursing education. *Reflective Practice, 8*(3), 331-343.

Engell, J. (1981). *The creative imagination: Enlightenment to romanticism.* Cambridge, MA: Harvard.

Eriksen, M. A. (2012). *Material matters in co-designing: formatting & staging with participating materials in codesign projects, events & situations.* (Doctoral dissertation). Malmö University: Sweden.

European Commission. (2012). *Design for growth and prosperity*. Retrieved from: *http://europeandesigninnovation.eu/wpcontent/uploads/2012/09/Design_for_Growth_and_Prosperity_.pdf*

Feast, L. (2010). Epistemological positions informing theories of design research: implications for the design discipline and design practice. *In proceedings of 'Design and complexity' Design Research Society International Conference (DRS2010),* Montreal, Canada: Design Research Society.

Feldman, D., Csikszentmihalyi, M., & Gardner, H. (1994). Changing the World: A Framework for the Study of Creativity, Santa Barbara, CA: Praeger

Finke, R. (1995). Creative realism. In Smith, S., Ward, T., & Finke, R. (Eds.), *The Creative Cognition Approach*, Cambridge: University Press.

Finke, R., Ward, T., & Smith, S. (1992). *Creative Cognition*. Cambridge, MA: MIT Press.

Finlay, L. (2014). Engaging Phenomenological Analysis. *Qualitative Research in Psychology, 11*(2), 121-141.

Fischer, G. (1998). Beyond "couch potatoes": From consumers to designers. *Computer Human Interaction, 1998. Proceedings. 3rd Asia Pacific,* 2-9.

Fochtman, D. (2008). Phenomenology in pediatric cancer nursing research. *Journal of Pediatric Oncology Nursing, 25*(4), 185-192.

Frascara, J. (2004) *Communication Design: Principles, Methods, and Practice.* New York: Allworth Press.

Fry, T. (2008). *Design Futuring: Sustainability, Ethics and New Practice,* London: Bloomsbury Publishing PLC.

Gearing, R. (2004). Bracketing in research: A typology. *Qualitative Health Research*, *14*(10), 1429-1452.

Giorgi, A. (1997). The theory, practice, and evaluation of the phenomenological method as a qualitative research procedure. *Journal of Phenomenological Psychology, 28*(2), 235-260.

Giorgi, A. (2009). *The descriptive phenomenological method in psychology: A modified Husserlian approach*. Pittsburgh, PA: Duquesne University Press.

Gould, J., & Lewis, C. (1985). Designing for usability: Key principles and what designers think. *Communications of the ACM, 28*(3), 300-311. doi>10.1145/3166.3170

Gray, D. E. (2014). *Doing Research in the Real World.* London: Sage.

Groenewald, T. (2004). A Phenomenological Research Design Illustrated. *International Journal of Qualitative Methods, 3*(1), 42-55.

Gumienny, R., Dow, S., Wenzel, M., Gericke, L., & Meinel, C. (2015). Tagging user research data: how to support the synthesis of information in design teams. In Plattner, H., Meinel, C., & Leifer, L. (Eds.), *Design Thinking Research. Understanding Innovation*. London: Springer.

Gunn, W., & Donovan, J. (2012). *Design and Anthropology*. Surrey, UK: Ashgate.

Hagen, P., & Rowland, N. (2017). Enabling Codesign. Retrieved from *Johnny Holland* website: http:/johnnyholland.org/2011/11/enabling-codesign/

Hanington, B. (2003). Methods in the making: A perspective on the state of human research in design. *Design Issues, 19*(4), 9-18.

Harder, M., Burford, G., Hoover, E. (2013). What is participation? Design Leads the way to a cross disciplinary framework. *Design Issues*, *29*(4), 41-57.

Hatchuel, A. (2001). The Two Pillars of New Management Research. *British Journal of Management, 12*(1), 33-39.

Heller, S. (2002). *The graphic design reader.* New York: Allworth Press.

Holloway, I., & Wheeler, S. (1996). *Qualitative research for nurses / Immy Holloway and Stephanie Wheeler*. Cambridge: Blackwell Science.

Hubka, V. (1982). *Principles of engineering design*. Guildford, UK: Butterford.

Hussain, S., Sanders, B., & Steinert, M. (2012). Participatory design with marginalized people in developing countries: challenges and opportunities experienced in a field study in Cambodia. *International Journal of Design*, *6*(2) 91-109.

Husserl, E. (1962 / 1977). *Phenomenological psychology*. The Hague: Nijhoff.

Jacucci, G., Ehn, P., & De Michelis, G. (2011). *Design Things.* United States: MIT Press Ltd.

Johansson-Sköldberg, U., Woodilla, J., & Çetinkaya, M. (2013). Design thinking: past, present and possible futures. *Creativity and Innovation Management, 22*(2) 121-146.

Kemp, G. (2003). The Croce-Collingwood theory as theory. *The journal of art and aesthetics criticism. 61*(2), 171-193.

Kimbell, L. (2011a). *Five things people designing solutions to social problems should know*. Retrieved from www.designleadership.blog.co.uk

Kimbell, L. (2011b). Rethinking design thinking: part I. *Design and culture. 3*(3), 285-306.

Kvale, S. (1996). *Interviews: Introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage.

Kleinsmann, M., & Valkenburg, R. (2008). Barriers and enablers for creating shared understanding in co-design projects. *Design Studies*, 29(4), 369–386.

Kouprie, M. & Sleeswijk Visser, F. (2009). A framework for empathy in design: stepping into and out of the user's life. *Journal of Engineering Design 20*(5), 437-448.

Krippendorff, K. (2005). *The semantic turn: A new foundation for design.* New York: Taylor & Francis.

Kruger, D. (1988). *An introduction to phenomenological psychology* (2nd ed.). Cape Town, South Africa: Juta.

Langdridge, D. (2007). *Phenomenological psychology: Theory, research and method.* London: Person Education Limited.

Lopez, K., and Willis, D. (2004). Descriptive versus interpretive phenomenology: Their contribution to nursing knowledge. *Quality Health Research, 1*(14), 726-735.

Lupton, E., & Cooper-Hewitt Museum. (2003). *Inside design now: National Design Triennial*. New York, N.Y: Princeton Architectural Press.

Maslow, A.H. (1963). 'The Creative Attitude'. In *The Structurist,* University of Saskatchewan: Saskatoon.

Mattelmäki, T., & Sleeswijk Visser, F. (2011). Lost in CO-X - Interpretations of Co-Design and Co-Creation. *Proceedings of IASDR'11, 4th World Conference on Design Research, 1*(31), 30-45.

Moon, J. (1999). *Reflection in learning and professional development*: *Theory and Practice*. London: Kogan Page.

Moustakas, C. (1994). *Phenomenological research methods.* Thousand Oaks, CA: Sage.

Nafus, D., & Anderson, K. (2010). *Writing on the Wall: The materiality of social memory in corporate research, in Ethnography and the Corporate Encounter: Reflections on Research in and of Corporations*. New York: Bergahn Books.

Norman, D. (2002). *The Design of Everyday Things.* Basic Books: New York.

Pandza, K., & Thorpe, R. (2010). Management as design, but what kind of design? an appraisal of the design science analogy for management. *British Journal of Management, 21*(1), 171-186.

Park, J. Y. (2012). Design process excludes users: the co-creation activities between user and designer. *Digital Creativity, 23*(1), 79-92.

Parker, S., & Parker, S. (2007). *Unlocking innovation. Why citizens hold the key to public service reform.* London: Demos.

Perks, H., Cooper, R. & Jones, C. (2005). Charaterising the role of design.*The Journal of Product Innovation Development*. *22*(1), 111-127.

Peirce, C.S. (1958). *The collected works of Charles Sanders Peirce.* Harvard: University Press.

Polit, D. F., & Beck, C. T. (2008). *Nursing Research: Generating and Assessing Evidence for Nursing Practice*. Philadelphia: Wolters Kluwer. Lippincott, Williams & Wilkins.

Polkinghorne, D.E. (1989). Phenomenological Research Methods. In Valle, R.S., & Halling, S. (Eds.), *Existential-Phenomenological Perspectives in Psychology*. Boston, MA: Springer.

Prahalad, C.K., & Ramaswamy, V. (2004). Co-creation experiences: the next practice in value creation. *Journal of Interactive Marketing, 18*(3), 5-14.

Polanyi, M. (1962). *Personal Knowledge: Towards a Post Critical Philosophy.* London: Routledge.

Priest, S. (2003). *Merleau-Ponty* (Arguments of the philosophers). London: Routledge.

Raskin, J. D. (2002). Constructivism in psychology: Personal construct psychology, radical constructivism, and social constructionism. In Raskin,

J. D., & Bridges, S. K. (Eds.), *Studies in meaning: Exploring constructivist psychology* (pp. 1-25). New York: Pace University Press.

Redstrom, J. (2006). Towards user design? On the shift from object to user as the subject of design. *Design Studies*, *27*(2), 124-5.

Rittel, H., & Webber, M. (1984). *Planning problems are wicked problems, in developments in design methodology*. Chichester: Wiley.

Sanders, E.B-N. (1992). Converging Perspectives: Product development research of the 1990's. *Design Management Journal*. *3*(4), 50-59.

Sanders, E.B-N. (2002a). Generative Tools for CoDesigning. Retrieved from http://www.maketools.com/articlespapers/GenerativeToolsforCoDesiging_Sanders_00.pdf

Sanders, E.B-N. (2002b). *Scaffolds for Experiencing in the New Design Space, Information Design.* Retrieved from: http://www.maketools.com/articles-papers/ScaffoldsforExperiencing_Sanders_03.pdf

Sanders, E.B-N. (2006). Design Serving People. Copenhagen, *Cumulus Working Papers, Publication Series G*, University of Art and Design Helsinki: 28-33.
http://www.maketools.com/articles-papers/DesignServingPeople_Sanders_06.pdf

Sanders, E.B-N. (2008). On Modeling: An evolving map of design practice and design research. *Interactions- Designing Games: Why and How. 15*(6), 13-17. Retrieved from: http://www.dubberly.com/articles/an-evolving-map-of-design-practice-and-design-research.html

Sanders, E.B-N., & Stappers, P. J. (2012). *Convival toolbox: Generative research for the front end of design.* The Netherlands: BIS Publishing.

Sanders, E.B., & Stappers, P. J. (2008). Co-creation and the new landscape of Design. *CoDesign*. *4*(1), 5-18.

Sanders, E.B-N., & Westerlund, B. (2011). Experiencing, exploring and experimenting in and with co-design spaces. Retrieved from: http://www.maketools.
com/articles-with papers/SandersWesterlundNordes2011.pdf

Sanoff, H. (2011). Multiple Views of Participatory Design. *Focus*, *8*(1), 11-21.
doi: 10.15368/

Sawyer, K. (2012). *Explaining creativity*. New York: Oxford University Press.

Schön, D. (1987). *Educating the reflective practitioner: Towards a new design for teaching and learning in the professions.* San Francisco: Jossey-Bass.

Schön, D. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books..

Schuler, D., & Namioka, A. (Eds), (1993). *Participatory Design: Principles and Practices*. Hillsdale: NJ Lawrence Erlbaum Associates.

Seidel, V. (2000). Moving from design to strategy: The four roles of design-led strategy consulting. *Design Management Journal. 11*(2), 35-40.

Simon, H. (1969). *The sciences of the artificial*. Cambridge: The MIT Press.

Sleeswijk Visser, F. (2009). Bringing the everyday life of people into design. Retreived from: http://studiolab.io.tudelft.nl/manila/gems/sleeswijkvisser/sleeswijkthesis.pdf

Spiegelberg, H. (1982), *The phenomenological movement: An historical introduction,* The Hague, The Netherlands: Marinus Nijhoff.

Stacey, R. D., Griffin, D., & Shaw, P. (2000). *Complexity and management: Fad or radical challenge to systems thinking?* London: Routledge.

Steen, M. (2013). Co-Design as a Process of Joint Inquiry and Imagination. *Design Issues*, *29*(2), 16-28.

Taffe, Simone. (2012). *Shifting Involvement: Case Studies of Participatory Design in Graphic Design.* (Doctoral Thesis). Swinburne University of Technology, Australia. Retrieved from http://hdl.handle.net/1959.3/230512

Telier, A. Binder, T. De Michelis, G. Ehn, P. Jacucci, G. Linde, P., & Wagner, I. (2011). *Design Things*. Cambridge, Massachesetts: MIT Press.

Vaajakallio, K., & Mattelmäki, T. (2014). Design games in codesign: as a tool, a mindset and a structure. *Co-design*, *10*(1), 63-77.

Van Der Lugt, R. (2000). Developing a graphic tool for creative problem solving in design groups. *Design Studies, 21*(5), 505-522.

van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. London: Althouse Press.

van Manen, M. (1997). From Meaning to Method. *Qualitative Health Research, 7*(3), 345-369.

Visser, F.S., Stappers, P.J., Lugt, R.V.,& Sanders, E.B (2005). Contextmapping: experiences from practice. *CoDesign, 1*(2), 119-149.

Visionary Design Council. (2017, November 8). Designer of 2015 timeline. Retrieved from *The professional association of design (AIGA)* website: https://www.aiga.org/designer-of-2015-timeline

von Eckartsberg, R. (1998), Existential-phenomenological research. In R Valle (Ed.), *Phenomenological inquiry in psychology* (pp. 21–61). New York: Plenum.

Welman, J. C., & Kruger, S. J. (1999). *Research methodology for the business and administrative sciences.* Johannesburg, South Africa: International Thompson.

Wheelwright, S., & Clark, K. (1992). *Revolutionizing product development: Quantum leaps in speed, efficiency, and quality.* New York: Free Press.

Whent, T. (2015) *Design for Dasein: Understanding the Design of Experiences*. Independent Publishing Platform: CreateSpace.

Wieland, H., Polese, F., Vargo, S., & Lusch, R. (2012) Toward a Service (Eco) Systems Perspective on Value Creation. *International Journal of Service Science, Management, Engineering and Technology, 3*(3), 12-25.

Appendix A

Plain Language Information Statement

Federation
UNIVERSITY•AUSTRALIA
Faculty of Education and Arts

Plain Language Information Statement

Project Title: The collaborative designer: an investigation into the lived experience of designers in a collaborative creative process?

Principle Researcher: Kate Brass

Dear …….
I would like to invite you to participate in a research project being completed as part of a Masters of Arts by Research. You are being invited to participate because of your work in the area of co-design and social innovation. This has come to my attention through web searches and recommendations from professional networks. Please find outlined a description of the project for your consideration.

About the research

My research seeks to investigate the experience of the communication design practitioner in a collaborative creative process. I am looking at co-design in particular because of its scope as a multi disciplinary collaborative practice and its current application as a tool for innovation and change particularity in the social sector.

Communication designers increasingly work at community levels and may deal with complex social considerations such as disability, employment, health and environment that require collaborative skills beyond those currently practiced and taught within their discipline. With this research I am interested in gaining more insight into the experiences and perceptions of the designer already working in a co-sdesign practice.

Key questions investigated in thesis

- What are the experiences and perspectives of designers in the creative collaborative processes of co-design?

- What are the different dimensions and levels of collective and individual creativity as applied across the whole span of a design process with both designers and other participants in the group who are not professional designers?

- Does the effect of collaboration and teamwork have the potential to create a shift to a more socially responsibility designer who works within a wider design community and outside of the traditional framework of graphic design?

- How does this inquiry make a contribution to communication design practice and the education of communication design practitioners?

About the interview process

Information will be gathered in individual semi-structured interviews where a small number of participants will respond to a series of questions. Information gathered at interviews will broadly include; a description of the types of co-design projects you are involved in, your motivations to work as a designer within a collaborative model, how you experience your role as designer, how you perceive other team members understand their role and how you experience co-design as having potential as a tool for social innovation and change.

- Your participation in this research is voluntary and any reason you have for refusal to participate requires no explanation. In addition you are entitled to withdraw your consent to participate and discontinue participation at any time until data is processed without prejudice.

- During the interview process please feel free to choose not to answer questions asked of you.

- Interviews should take approximately an hour, where you will respond to a series of questions, as it is semi structured the interview process allows for further inquiry.

- If you do become distressed the interviews will be discontinued. Contact details for Lifeline 24 hour hotline - New Zealand: 0800 543 354 - Australia: 13 11 14

- The researcher has extensive experience as a practitioner and educator in graphic design. She is currently employed as a Lecturer at Federation University, Faculty of Education and Arts, Bachelor of Communication Design.

- Data will be collected by audio recordings and will be stored on password protected computers.

- Interviews will be recorded by video digital audio, they will be held only by the principle researcher and supervisor and only used as research material of the thesis. Collected data will be confidential and that no identifying information will be used in any publication arising from the research.

- In order to maintain data confidentiality only the principle researcher and principle supervisor will have access to the material.

- There is no identifying information required from the participants, unless otherwise agreed in any other publication arising from the research.

- There will be an opportunity for you to review transcripts before data is used as part of thesis.

- Digital transcripts will be stored, and destroyed after a period of 5 years.

- The research will be used for a Master of Arts by Research in the form of a thesis, it may be used at a later date in subsequent publications arising from the research

Thank you for considering my invitation, if you are interested in participating please contact Chrissie Smith. Email: chrissie.smith@federation.edu.au Ph: +64 20 407 67621 up until June 30th or +61 408 278 603 from June 30 onward.

Yours sincerely

Chrissie Smith

If you have any questions, or you would like further information regarding the project titled **The collaborative designer:** an investigation into the lived experience of designers in a collaborative creative process? Please contact the Principle Researcher, Kate Brass of the Faculty of Education and Arts. Ph: +61 (03) 5372 6293 Email: k.brass@federation.edu.au

Should you or any of the participants have any concerns about the ethical conduct of this research project, please contact the Federation University Ethics Officers, Research Services, Federation University Australia, P O Box 663 Mt Helen Vic 3353 or Northways Rd, Churchill Vic 3842. Telephone: (03) 5327 9765, (03) 5122 6446 Email: research.ethics@federation.edu.au

CRICOS Provider Number 00103D

Appendix B

Interview Questions

1. Can you describe the design discipline you work in?

2. Are there any particular design methods have you used previously if any?

3. What do you see as key overlaps in the practices of other design methods and co design and what are the differences?

4. What has inspired/motivated you to work in co design?

5. Have your views and practice changed because of working in this way?

6. Can you describe in your own words how you experience your role/s within the co design process?

7. What is your perception of how do other members in the co design team experience your role as designer?

8. As a designer what is your experience of participating in a process where the outcome at the beginning is unknown, in contrast to being asked to design a certain artefact?

9. Given that there are members in a co design group who come from a variety of disciplines, what is your perception of the different dimensions and levels of collective and individual creativity?

10. How important is your autonomy to you within a collective process?

11. How do you experience levels of control - holding on and releasing control of the direction of a project?

12. What techniques have you found useful for encouraging non designers in a creative process?

13. Do you use a specific design led techniques?

14. What are methods of recruiting participants have you used?

15. What do you feel are advantages and difficulties of that recruitment methods?

16. In your view what barriers exist for students in learning the co design process?

17. Do you feel personally transformed in any way by this process? If so can you describe this for me?

18. Do you think this process has potential to lead to change and innovation?

Appendix C

Example Transcript of Interview

1 **Marcus**
2 Marcus verbally consents to interview
3
4 **Researcher:** *Please describe the job you do right now*
5 **Marcus:** *It is probably what people would call customer experience design*
6 *so focusing on the touch points we have in customer experience design*
7 *with our customers and so that is improving and innovating services and*
8 *some of it is more around the engagement that comes from other work or*
9 *processers like community engagement, engagement for policy formation,*
10 *yeah, as well as engagement in spaces so people use our facilities and*
11 *what their experience was like*
12
13 **Researcher:** *And what sort of background did you come to it from?*
14 **Marcus:** *I came to it quite circulatory I suppose - I trained as a lawyer, I got*
15 *into planning work in local government in particular environmental*
16 *enforcement and monitoring work and then I worked in a review roll for the*
17 *ombudsman in Queensland for a little while - I was a parliamentary*
18 *investigator - so the first 10 years of my career was through investigations*
19 *really and environmental and local government complaints I managed*
20 *teams around complaint resolution and also around environmental offences*
21 *and always had an interest on how policy sort of made a prediction about*
22 *and the tactics that we took in an environment and the outcomes that would*
23 *result so part of my role has been evaluation too, moderating and*
24 *evaluation so I had an interest in how we learnt to do better and then that*
25 *ended my interest in environmental enforcement work when I realized what*
26 *we were doing largely just resolving individual grievances - there was a*
27 *whole lot less of wider community behavior change and that's what we do*
28 *more of - so I became interested in behavior change through engaging the*
29 *community widely and being able to find stake holder groups who could*
30 *have some sort of leverage on your behalf in neighborhoods around*
31 *particular resources, water ways, coastal walks that people have some*
32 *pride in and that way tried to make it go a lot further as a regulating body so*
33 *that interest in behavior change and engagement um took me into an*
34 *interest in overseas aid and development work, poverty elevation that sort*
35 *of thing, I took some time away probably about a year and I did some*
36 *contract work in that time back to monitoring and enforcement and did*
37 *some work for our national agency training other councils in doing that work*
38 *but while I was doing that I was studying development management as an*
39 *international aid development management and I learnt in doing that about*
40 *experiences of international development community and moving from what*
41 *had been a very strong blue print approach of delivering aid into countries -*
42
43 *World bank stuff where they go - ok here is the money and spend it and we*
44 *will spend it according to what we know so we will build a dam and this is*
45 *how we do it or water supply and this is how we do it and we just walk into*
46 *communities and set it up without the understanding that the people there*

1

47 *need to understand how to live with it and how to maintain it - innovate of it -*
48 *change it to suit their own circumstances so those learning's over the*
49 *development community really impressed me and it led to me learning more*
50 *about community engagement techniques and how you involve local people*
51 *as experts in their own situation and that raised for me how do we engage*
52 *communities to own this stuff and in taking responsibility in caring for their*
53 *own environment. Once I got involved in that - basically they were*
54 *participatory techniques - problem solving innovation techniques as well*
55 *and that that s really what stimulated me and I then took a role a year or so*
56 *later managing a community development team at Auckland city council,*
57 *just prior to the amalgamation of Auckland council they had a experimental*
58 *approach going which was play space development, there was 4 or 5 of us*
59 *and we each had an area of Auckland city - we were trying to identify and*
60 *stimulate initiatives it could be anything social economic development wise*
61 *and I got to try some of these participatory techniques and tried to get*
62 *people involved in projects - struggled with that basically people not having*
63 *the time or resources to maintain it even though it is a nice idea in theory*
64 *and after the amalgamation I took on a team of population specialists*
65 *managing a variety of portfolio with a person in each managing things like*
66 *ethnicity and migration, youth development disability Maori, pacific all of that*
67 *stuff as well as community funding for Auckland city council so I stayed in*
68 *that role for another year and about that time I read Tim Browns book on*
69 *design thinking and I thought well this is interesting cause it kind of brings*
70 *together my interest organizational change and improvement particularity*
71 *with this kind of customer centered people centered more participatory*
72 *hands on way of engaging people so I then went out and started practicing*
73 *as a service designer - I re branded myself and went out and looked for*
74 *work - and did that for 2 and half years and trained myself - read a bunch of*
75 *books and experimented running service design processes mostly with local*
76 *government clients and with some NGOs and some of that was - there was*
77 *probably only 3 end to end projects right from conception briefing through*
78 *to blue printing the service - a whole lot of work shopping as well with stake*
79 *holder engagement so that's two and half years before ending back in*
80 *council again*
81
82 **Researcher:** *That's quite a journey and it really reflects as your interest*
83 *change your employment changed.*
84 **Marcus:** *In a way the environment was not ready for that - it is becoming*
85 *more ready because central government in wellington and Auckland are*
86 *building there capability around service design so pretty much every three*
87 *weeks or so there is a new service design role coming out of departments in*
88 *wellington - so it was unrecognized until recently - you had to talk about it in*
89 *different ways like improving customer experience - making the journey*
90 *easier for people and language like that*
91
92 **Researcher:** *And do you think co design as an integral part to service*

2

137

93   *design?*
94   **Marcus:** *It doesn't exist without it but not every one holds that view - the*
95   *practice of it is quite eclectic, its not one thing its borrowing from different*
96   *areas so that why people are still writing text books about that every new*
97   *author every new text book is trying to create it s own frame for a*
98   *fragmented or eclectic practice - you know like Lucy Kimball's new book on*
99   *service innovation she is you know she has taken on 2K theory and put it*
100 *together with sort of design ethnography to create her own little quadrant to*
101 *try and model another way of trying to think about service innovation not*
102 *calling it service design either so its kind of a moving feast this one*
103
104 **Researcher:** *Just going back to co design practice and service design*
105 *practice can you in your experience describe your role?*
106 **Marcus:** *So obviously in council there is not that much opportunity to work*
107 *in co design - across silos there is a real opportunity people who each have*
108 *a role to play in customer service but where the journey is going to cross*
109 *from first point of contact into customer service through to an operational*
110 *department to be passed on to another one and then being pulled back*
111 *again and then being blurred at the other end so one of our greatest*
112 *challenges is our silos and the fact that people, if I took planning as an*
113 *example, where applying for development consent of one kind or another,*
114 *the planner is also acting as a collator of views, from a variety of experts*
115 *across a number of departments but they are not always working very well*
116 *as a coordinator so they are collating but not coordinating and its frustrating*
117 *for the customer - it means that they end up with requests for information*
118 *that are diverse and fragmented not well integrated and a waste of time and*
119 *all sorts - so that is a fairly typical example of what can go on so the*
120 *opportunity here is to get people together from different departments to*
121 *think together about how they might make it easier for a customer but what*
122 *we try to bring in to those situations is some evidence of what that customer*
123 *actually needs, from what might be different from what people assume*
124 *already and typically that has been through drawing on customer*
125 *experience surveys so pulling in often verbatim, so comments made on*
126 *open questions and some degree also scores but customers surveys here*
127 *don't really tell us about what peoples experience is but every now and then*
128 *we manage to pull up verbatim that brings up issues that are new and*
129 *surprising - what my team is trying to do more now is find appetites from*
130 *departments that understand that they have a problem and an appetite to*
131 *do on site observation where there customers are and shadow there staff*
132 *and intercept customers very early on in inspection routines or maintenance*
133 *checks and use those as opportunities to learn about customers in ways*
134 *that staff have not necessary have done because they have not seen it as*
135 *part of their job or they have not had time they have just been to dam busy*
136 *getting through volumes of work so adding value to them and your insights*
137 *and then bringing it into sessions where you have got the different parties*
138 *who can consider those together and reflect on what else might be needed -*

3

139 *so in terms of co-design with customers distinctly there has been arrange*
140 *customer workshops and do journeying with customers and we face the*
141 *normal challenges of recruiting so coming in after work or on Saturdays and*
142 *I am thinking about this project we are working on at the moment which is*
143 *for our leisure services - leisure centers and pools in Auckland we are trying*
144 *to devise a new to try and attract people who perhaps have an intention to*
145 *get more fit or physically active but are stuck in making a commitment it*
146 *might not be in these centers but it will be physical activity of some kind -*
147 *people really do struggle with that - so what I am trying to do now is to*
148 *recruit from our council family - 8000 staff from all walks of life - so trying to*
149 *take a different approach and then we will do some co-design run with the*
150 *staff and then they will be able to use their own work time to do it.*
151
152 **Researcher:** *So within a co design team, I am assuming you have a variety*
153 *of people from different backgrounds - would this be correct?*
154 **Marcus:** *We create virtual teams in my team there is only 3 people and we*
155 *are called solution brokers we are meant to get together and create*
156 *opportunities and inspire our operations team to make changes and the*
157 *approach that we are favoring is a design approach*
158
159 **Researcher:** *Do you have a sense of how virtual team goes in and works*
160 *with others in a co design process so do you have a sense how those*
161 *people might view your role as designer within a team?*
162 **Marcus:** *Typically it is a facilitator and its also coach working this way -*
163 *primarily I work on more time being a coach more than anything else and*
164 *because we don't always have the skills of a graphic designer on board I do*
165 *a lot of visualization work and when we juice what we do I visualize it and*
166 *present that back to the group for more discussion to push us onto the next*
167 *phase of learning so I am also taking that role but mainly as coach reality is*
168 *when I am working on the virtual team I work with people that can't always*
169 *shake the commitments of their normal job while they say yeah ok we will*
170 *help you for 6 or 12 weeks and they are still trying to do the work on the*
171 *side and they have not been fully released so it is a struggle in a busy*
172 *organization the managers see the value of it and sometimes it is only*
173 *because the bosses are telling them they need to see the value of it, they*
174 *don't properly release their staff to assist the project*
175
176 **Researcher:** *Why do you think that is? Why don't people see the value of*
177 *it?*
178 **Marcus:** *A variety of reasons - some people just don't like change from*
179 *what they know they feel confident in their job in the way they are doing it*
180 *now you know they feel less secure about something that is emerging or*
181 *has emerged I imagine it is something that has not been in there head*
182 *before*
183
184 **Researcher:** *How do you cope with unknown outcomes?*

4

185 **Marcus:** *I deal with that all the time whenever I hear some discussion - its*
186 *going to look like this I say hold on a second how can you know that - the*
187 *process we are following we want to discover things -I am always alert to*
188 *what I hear - I always want to get people in the mode of discovery this is not*
189 *about confirming what you know it is discovering what you don't know -*
190 *which might be useful otherwise we are not bringing value to taking a*
191 *design approach - I have to keep on picking people up on that - cause a lot*
192 *of the staff on the virtual teams are advisors, they are advising on a*
193 *knowledge field that they know well so it is quite hard for them to develop a*
194 *new mind set - which is the other challenge of being a coach having a mind*
195 *set of listening not advising certainly not being defensive which they often*
196 *feel like being and actually drawing in and on the stuff that surprises them it*
197 *seems significant to someone else which they might dismiss as being not*
198 *relevant - continued tension their for me.*
199
200 **Researcher:** *How to you understand dimensions and levels of creativity*
201 *that people contribute within the group?*
202 **Marcus:** *I see it as an essential phase in getting to better solutions - it is a*
203 *very distinct creative phase and then when we do with our ideas is very*
204 *important how we form concepts out of them and check feasibility after that*
205 *- there is a very distinct creative phase and so I make that a key part out of*
206 *every project and I always have a workshop that represents that part of the*
207 *process even though the creative bit can come in at other times as well so I*
208 *tend to have a work shop approach to it and in terms of what I experience in*
209 *people it really varies from group to group it is not that I believe that people*
210 *are different creatively it is how they think themselves - how you - it is much*
211 *better to work with a team over time who can ease into being creative than*
212 *it is to gather a team on the spot and try to create a session on the spot -*
213 *because they have not released themselves to be creative and by that I*
214 *mean they have not allowed them selves to enter into free association*
215 *mode where they can try any experience they have and run off in tangents*
216 *be a bit wild I just have them for the day which has happened quite a lot*
217 *then they end up and writing and thinking what they think is sensible based*
218 *on their day job and so we don't get much that's new based on those*
219 *sessions and I get that feedback from managers sometimes from office*
220 *managers saying well this is not so different is it - you said I could run a*
221 *workshop for the day but if you could have given me maybe 4 weeks I could*
222 *have done something, might have got something - so that's the thing and I*
223 *have heard people say well that's when they bring in creative to stimulate*
224 *artists and designers and whatever to stimulate peoples thinking but I am*
225 *not sure about that I think that what you will get are those peoples ideas I*
226 *don't know that will actually help operational staff think differently, the*
227 *exposer is to short and they might react to each other and close down a*
228 *little bit and there fore the people that come in from the out side they are the*
229 *more artistic ones then they will be responding to the information before*
230 *them but they will not be responding to variance and they would not have*

5

140

231 *been through interviews I would much rather have my research team and I*
232 *would much rather prepare them to be creative than bring in some sort of*
233 *outsiders to stimulate that creativity*
234
235 **Researcher:** *Have you had an experience of being able to have a group for*
236 *a longer period of time?*
237 **Marcus:** *Yeah so there a two projects one that I have just exited where I*
238 *had a group for 12 weeks and I was coaching the research phase but I have*
239 *been pulled out of that due to other commitments but the team has carried*
240 *on into their design phase - so I was involved in the first 6 weeks so that is a*
241 *constant thing for 12 weeks although some people left after 6 because that*
242 *is all their work could give them*
243
244 **Researcher:** *How much time over the 12 weeks?*
245 **Marcus:** *Full time over 12 weeks - that's unusual though and the reason*
246 *why that has happened is because it is a consenting project - land*
247 *development in Auckland is such a hot topic - issues of housing and*
248 *whatever and making in differ cult for people to renovate their houses or*
249 *develop their land or what ever else is only making the housing situation*
250 *worse it has so much sport in it that basically managers have said we are*
251 *going to have to create space for this*
252
253 *In contrast the one I am doing with youth centers - they are not giving them*
254 *any time outside of their day jobs I had two people out of a team of 6*
255 *withdraw over the past few weeks because they can't manage it on top of*
256 *their jobs they wanted to but they just can't sustain it*
257
258 *Working remotely is differ cult - for all those reasons I said allowing them to*
259 *think creatively, coaching them as they go being with them when they are*
260 *trying to write their interviews up, coding and cross checking what they are*
261 *coding - doing it remotely is just a pain in the butt just not as effective*
262
263 **Researcher:** *…so much of the process would be about interacting?*
264 **Marcus:** *I am realizing together where they are getting stuck and trying to*
265 *find ways to get over the stuck points and see if that happens they are*
266 *defiantly going through that experience of changing their mindsets*
267
268 **Researcher:** *within a creative process do you feel that people can move*
269 *from one position to another? Create something new or have new ideas do*
270 *you along side them feel personally transformed by that process?*
271 **Marcus:** *I learn I don't know about personal transformation but I learn*
272 *personal transform - what are you thinking of?*
273
274 **Researcher:** *So when you describe to me that journey from lawyer to*
275 *service designer and the process of co-design is meant to be innovative*
276 *and transformative is that transforming you as well along the way- do you*

6

277 *have any sense of that?*
278 **Marcus:** *What I do have to say is that it does keep me in touch with others -*
279 *there is so much about specialization in our jobs - what ever job it is that we*
280 *can lose touch with people different from ourselves so I am continually*
281 *refreshed and delighted actually by doing this kind of work and meeting*
282 *people who surprise me and when I realize I have been surprised I like think*
283 *' of course I was surprised' of course those people are there and they think*
284 *like that, its just I had forgotten that there were people different from me and*
285 *different from how I thought they thought, so I find that really grounding I*
286 *find that really up lifting, it s actually really energizing for me, it is also about*
287 *that's partly because of who I am. I am a person who thrives on diversity,*
288 *and its also why I love to travel and when I travel I usually engage with*
289 *other families along the way via my children – I stay at peoples homes,*
290 *that's just how I travel to get to know people.*
291
292 **Researcher:** *do you think that co design as a tool for innovation and*
293 *change is one of the more effective ones, do you think it can lead to change*
294 *and innovation?*
295 **Marcus:** *Yeah I think people get hyped up about techniques and*
296 *techniques become a way of differentiating themselves from others and*
297 *people are looking for opportunities to sell a set of techniques, to sell a*
298 *course, to sell themselves based on techniques, like the black belt in lean*
299 *sigma for example and I don't connect with that, I don't subscribe to any of*
300 *that, its partly because of where I have come from and I think of co design it*
301 *is a just practice that makes sense, because we are social beings, it suits*
302 *my values – if people learn to solve problems with each other for them*
303 *selves rather than having solutions imposed on them then that is more*
304 *sustainable and in the course of doing so they build connection and*
305 *connection is good for peoples sense of self assurance and security and it*
306 *means you have more loving environments, which helps things be more*
307 *peaceful and helps get things sorted out when they are not and all that sort*
308 *of stuff. To me it just makes sense, it suits my values and it is a very human*
309 *activity so I don't see it as a passing wind, I actually think if it is not, if*
310 *people are not continually reframing and differentiating as this set of*
311 *techniques then you can kind of sell and advertise then it is very sustainable*
312 *and will remain forever in some form even if it goes by different names.*
313
314 **Researcher:** *what barriers do you think exists for students trying to learn a*
315 *co design practice and do you think that they should and how should they*
316 *given its eclectic nature? Do you have any views on the education of co*
317 *design practice?*
318 **Marcus:** *There is something about framing, framing it, framing and*
319 *experience learning is what I think of so while I am not to bothered about*
320 *tool kits and there was this whole push on tool kits for a while, I am not to*
321 *hot on tool kits because I think you can fashion your own tools once you*
322 *have a basic understanding of what you are trying to achieve and the kinds*

7

142

323 *of interactions you want in the development of the thinking, then you can*
324 *draw on all kinds of disciplines you are not limited whether it is macro*
325 *research or aid and development or what ever it is , participatory design in*
326 *the IT world, what ever it is, you can all find all sorts of there are all sorts of*
327 *sources, you can find sources in education theory, like I think it is a very*
328 *human practice co design so there are lots of people who have*
329 *contributions to make and I am sure some of them are undiscovered or*
330 *hasn't been linked yet to design practice, I think for me it is about framing*
331 *than any journey as an experience because I see the whole thing from start*
332 *to end as being a learning journey while you are prototyping you are still*
333 *learning it is not just the research phase at the front end and you know it*
334 *would be useful to compare the frames that different thinkers use and the*
335 *double diamond still has some relevance but like Lucy Kimbell she is still*
336 *framing things in different ways that can help people create that frame for*
337 *the journey they are going to go on for learning and developing something*
338 *else – so for students I would start with the framing – and go ok lets frame*
339 *something that we think will work for the area of interest and the people we*
340 *are going to engage – its try it and lets learn within it and borrow techniques*
341 *that we can learn from and lets be a certain way during this and see what*
342 *that s like and learn how to be together better and then next time lets use a*
343 *different frame, framing is very important.*
344
345 *End of Interview*

Appendix D

Significant & Transformed Meaning Units

1. Marcus
2. Sarah
3. Conner
4. Helen
5. Oliver
6. Johanna

1. Marcus: Meaning Unit Table

Natural Meaning Units *Expressed in the interviewed participant's language as far as possible.*	Transformed Meaning Units *The transformed meaning units, of each meaning unit, relevant for the phenomena of the "experience" of a co-design practitioner.*
94-102/ The practice of service design is quite eclectic, its not one thing its borrowing from different areas so that why people are still writing text books about that every new author every new text book is trying to create it s own frame for a fragmented or eclectic practice. Lucy Kimball's new book on service innovation she is you know she has taken on 2K theory and put it together with sort of design ethnography to create her own little quadrant to try and model another way of trying to think about service innovation not calling it service design either so its kind of a moving feast.	M describes practices like service design as eclectic, what has been written about it, borrows from different areas and is still creating its own framework, Marcus describes it as a "moving feast".
162-167/ Typically it is a facilitator and it's also coach working this way - primarily I work on more time being a coach more than anything else and because we don't always have the skills of a graphic designer on board I do a lot of visualization work and when we juice what we do I visualize it and present that back to the group for more discussion to push us onto the next phase of learning.	M describes his role as a facilitator and a coach, but primarily a coach, he also takes on a lot of visualization work, he takes the juice from discussions, visualizers it and presents it back for more discussion and the next phase of learning.
168-174/ I work with people that can't always shake the commitments of their normal job while they say yeah ok we will help you for 6 or 12 weeks and they are still trying to do the work on the side and they have not been fully released so it is a struggle in a busy organization the managers see the value of co-design and sometimes it is only because the bosses are telling them they need to see the value of it, they don't properly release their staff to assist the project.	Often, M works with people who have not been fully released of the responsibilities of their regular duties and are participating into the project on the side. It can be a struggle for managers in busy organizations to see the value of a process that can take up significant amounts of time, so they don't fully release their staff to assist in the project.
178-182/ Some people just don't like change from what they know they feel confident in their job in the way they are doing it now you know they feel	Some people find change hard especially moving from a space of feeling confident and comfortable in their job to something new and emerging,

less secure about something that is emerging or has emerged I imagine it is something that has not been in there head before.	perhaps a perspective or way of thinking they have not thought about before.
185-188/ I deal with that all the time whenever I hear some discussion - its going to look like this I say hold on a second how can you know that - the process we are following we want to discover things -I am always alert to what I hear.	M often deals with fixed thinking in a discussion; he is alert to guiding and staying with the process of discovery.
188-190/ I always want to get people in the mode of discovery this is not about confirming what you know it is discovering what you don't know - which might be useful otherwise we are not bringing value to taking a design approach.	To bring value to this design approach Marcus wants to get people in the mode of discovery, it is not a process of confirming what you already know it is discovering what you don't know.
191-196/ Because a lot of the staff on the virtual teams are advisors, they are advising on a knowledge field that they know well so it is quite hard for them to develop a new mind set - which is the other challenge of being a coach having a mind set of listening not advising certainly not being defensive which they often feel like being and actually drawing in and on the stuff that surprises them it seems significant to someone else which they might dismiss as being not relevant - continued tension their for me.	M observes that it can be hard for some participants who have expertise in their own fields to develop a new mind sit of listening not advising. They can dismiss experiences that might be significant to others. There is a tension here for Marcus
202-210/ There is a very distinct creative phase and so I make that a key part out of every project and I always have a workshop that represents that part of the process even though the creative bit can come in at other times as well so I tend to have a work shop approach to it and in terms of what I experience in people it really varies from group to group it is not that I believe that people are different creatively it is how they think themselves.	M uses a workshop model to facilitate the creative phase of a project. His experience of people participating creatively varies from group to group, he does not think people are differently creatively, he thinks its about how they think themselves.
211-216/ It is much better to work with a team over time who can ease into being creative than it is to gather a team on the spot and try to create a session on the spot - because they have not released themselves to be creative and by that I mean they have not allowed them selves to enter into free association mode where they can try any experience they have and run off in tangents be a bit wild.	In M's experience he feels it is better to give people time to ease themselves into a space where they feel that they can participate creatively. Marcus uses phases like "allowing themselves to enter into a free association mode", "releasing themselves to be creative" and "run off in tangents, be a bit wild".
216-221/ I just have them for the day which has happened quite a lot then they end up and writing and thinking what they think is sensible based on their day job and so we don't get much that's new based on those sessions and I get that feedback from managers sometimes from office managers saying well this is not so different is it - you said I could run a workshop for the day but if you could have given me maybe 4 weeks I could have done something.	As a consequence of not having enough time for the process, M has found that not much that is new comes out of it as people are still writing and thinking on what they think is sensible based on what they already know. Feedback from manager's reports that they do not see much of a difference in outcomes from usual. Marcus feels that given more time with staff he could have produced some different outcomes.
223-228/ I have heard people say well that's when they bring in creative to stimulate artists and designers and whatever to stimulate peoples thinking but I am not sure about that I think that what you will get are those peoples ideas I don't know that will actually help operational staff think differently, the exposer is to short and they might react to each other and close down a little bit.	M does not believe that bringing in specialist creative people from the outside would help with stimulating people into thinking differently. If the exposer is short they might react to each other and close down a bit.
228-233/ The people that come in from the outside they are the more artistic ones then they will be	The artistic people from the outside will be responding to immediate information in front of

responding to the information before them but they will not be responding to variance and they would not have been through interviews I would much rather have my research team and I would much rather prepare them to be creative than bring in some sort of outsiders to stimulate that creativity.	them and would not have the complete picture having not gone through the interviews so would not be fully aware of the variance of what had gone on before they got there. As a consequence M would prefer to prepare them to be creative as opposed to externally stimulate creativity.
278-283/ What I do have to say is that it does keep me in touch with others, there is so much about specialization in our jobs, what ever job it is that we can lose touch with people different from ourselves so I am continually refreshed and delighted actually by doing this kind of work and meeting people who surprise me and when I realize I have been surprised I like think ' of course I was surprised' of course those people are there and they think like that.	M is aware that specialization can potentially lead to losing touch with others that feel or think differently from us. The co-design process keeps him in touch. "…I am continually refreshed and delighted actually by doing this kind of work and meeting people who surprise me and when I realize I have been surprised I like think ' of course I was surprised' of course those people are there and they think like that".
284-287/ Just I had forgotten that there were people different from me and different from how I thought they thought, so I find that really grounding I find that really up lifting, it s actually really energizing for me.	It is energizing and grounding to interact with people who are different from what I thought they would be like. Co-design allows for an opportunity to experience what other people think and space to explore and appreciate those differences, even to be energized and up lifted from that experience.
287-290/ I am a person who thrives on diversity, and its also why I love to travel and when I travel I usually engage with other families along the way via my children – I stay at peoples homes, that's just how I travel to get to know people.	M describes himself as someone who naturally thrives on diversity, and engaging with people.
295-299/ I think people get hyped up about techniques and techniques become a way of differentiating themselves from others and people are looking for opportunities to sell a set of techniques, to sell a course, to sell themselves based on techniques, like the black belt in lean sigma for example and I don't connect with that, I don't subscribe to any of that.	M does not subscribe to what he believes is the hype that is sometimes situated around co-design techniques. He see's people using it as an opportunity to sell techniques or themselves and uses the black belt in lean sigma as an example of a way techniques can be hyped up, packaged and sold.
301-302/ It's partly because of where I have come from and I think of co-design it is a just practice that makes sense, because we are social beings, it suits my values	Co-design as a practice suits M's values, it make sense to him because we are social beings and it is a people orientated social process
302-304/ If people learn to solve problems with each other for them selves rather than having solutions imposed on them then that is more sustainable.	A person learning to solve problems for themselves is more sustainable than having solutions imposed upon them.
304-307/ In the course of doing so they build connection and connection is good for peoples sense of self assurance and security and it means you have more loving environments, which helps things be more peaceful and helps get things sorted out when they are not and all that sort of stuff.	Solving problems with each other builds connection and connection leads onto gaining a sense of assurance and security. This then leads onto more loving environments that help us to be more peaceful.
308-312/ To me it just makes sense, it suits my values and it is a very human activity so I don't see it as a passing wind, I actually think if it is not, if people are not continually reframing and differentiating as this set of techniques that you can kind of sell and advertise then it is very sustainable and will remain forever in some form even if it goes by different names.	Co-design makes sense for M, it suits his values and it is a very human activity. Because it is an inherently human activity he does not believe it is a passing phase, he thinks it is a process that will continue to be used even if it goes under different names.
318-324/ There is something about framing, framing it, framing and experience learning is what I think of so while I am not to bothered about tool kits and there was this whole push on tool kits for a while, I am not to hot on tool kits because I think	Framing is more important than techniques, if you know how to frame a question or a problem then you can fashion your own tool kit that is responsive to the situation.

you can fashion your own tools once you have a basic understanding of what you are trying to achieve and the kinds of interactions you want in the development of the thinking, then you can draw on all kinds of disciplines you are not limited	
330-334/ I think it is a very human practice co-design so there are lots of people who have contributions to make and I am sure some of them are undiscovered or hasn't been linked yet to design practice.	A lot of different people have a lot of contributions to make some which have not been linked to design practice yet.

2. Sarah: Meaning Unit Table

Natural Meaning Units *Expressed in the interviewed participant's language as far as possible.*	**Transformed Meaning Units** *The transformed meaning units, of each meaning unit, relevant for the phenomena of the "experience" of a co-design practitioner.*
20-28/ I found this world of participatory design and that language and that was very liberating and I though oh great here's this thing that does this stuff that I want to do, so when I practice I would talk about either co-design or participatory design, so what that means is that primarily my work is enabling other people to activate the design process.	S's main practice is co-design or participatory design, she feels very liberated in working with those background philosophies. They provide her with a platform to enable others to activate the design process.
53-55/ The design process is still the same it's just that co-design is a collaborative process, you are working on challenges that any one discipline is capable of responding to effectively.	S's background in design gives her a solid knowledge of design processes and how they are applied in practice. She identifies the traditional forms of design process as the same as you would use in a co-design process, the only difference is that co-design is collaborative.
55-60/ So design process is two things its the process that you follow in that you go wide and you explore and you do your understanding and then you come back and now that you know what the challenges are how will you address it and then you go wide again so that kind of meta process is the same in the development of a thing.	S describes the design of an idea solution and the development of a thing or object as the same process. She says it is a kind of meta process, you go wide, you explore, you come back with your understanding and that assists you to know what your challenges are and how you will address them and then you go out and explore widely again.
60-67/ Then you can use it in cultivating practice in people so when I am doing design coaching and I am preparing people to adopt co-design in their organizations that can just be about developing a more designedly practice themselves so they don't have to think that they know the answer maybe they prototype stuff – maybe they just making it visual, so using some of those techniques that we would use naturally as design practitioners, like I will quickly draw this or sketch it out and every time I sketch it I will know more about it - and critique.	S speaks of preparing people to take co-design back into their organisations. She describes it as coaching them to develop a more 'designerly' practice for themselves. This means using visual techniques that design practitioners naturally use such as drawing prototyping and critique. As these practices become more familiar to them with use they can adopt them more readily into their own working practices.
68-78/ I talk about that much more explicitly that I used to I now I explain to people that this is why in art school you have to show your stuff you put it out there and everyone rips in to pieces and the practice of putting stuff out there and realizing that that they is much more to be gained in offering something out there and working through it and that is how you learn, people can find that enlightening they understand - even if they never did it - they know about that thing - so they are the same practices - its just that they are available to other	S expresses that design is a useful framework for people to use in a multidisciplinary space. Using the art school practice of critique can be enlightening for people that have not used it before. They gain from sharing ideas in visual form, putting them out there for others to see and learning through the feedback that they receive.

people to pick up - or its a way to collaborate so I see it as a process that they are trying to design something but it is also a framework design is a very useful framework in a multI disciplinary space.	
78-83/ So if you are working in health and we want to integrate social enterprise methodologies, agile methodologies health and well being, social outcomes, design becomes the framework for saying yeah, yeah, we will bring that all in and we will work out a way for it to all met each other, so yes I think it get used in a number of ways but I see them as fundamentally the same.	The framework of design process becomes a meeting point of action, it gets used in a number of ways by a number of different disciplines but S sees its application as fundamentally the same.
83-89/ When you look at Donald Schön, he did this really beautiful examination of 'reflection in action' and 'reflection on action' in design practice. He talked a lot about how things talk back to you. You draw a picture and it talks back to you and he exposed that 'designerly' practice now. Which is quite tacit. He just didn't talk anything about collaboration, that's a participatory process	S believes there is an understanding to be gained on reflection in action in design practice, you make something visual, and it talks back to you. It is a generally understood that arts practice so not often explicitly talked about in a co-design process. However she is very passionate about how she uses the idea of the reflective practitioner in her work.
90-92/ I think yeah design uses all the same processes, but used in different ways, some people may argue that differently - design as a craft and design as a discipline and design as a practice	S believes that design as craft and design as a discipline and design as practice are the same processes applied in different ways.
95-97/ I think that that design thinking has brought that back in terms of design as a strategic tool and it provides informed decision making - that what it does at its best - allows you to make good decisions	S speaks of design thinking being used as a strategic tool that provides you with a framework to make informed decisions.
106-108/ I am a people person that is why I get interested in enabling people so for me design is just a vehicle for that so I didn't find design to be a very satisfactory place until I discovered it as a social process	Sarah describes herself as a people person so she did not find design very satisfactory until she discovered it as a social process, she sees it (design) as a vehicle to enable people.
122-128/ So you are basically a facilitator or a broker - sometimes a provocateur - sometimes you have to get people to think strategically it is often giving the people the tools to think strategically about complex decision making and how you use evidence and how you use lived experience and other kinds of data and stuff like that so I see that as a facilitator and brokered type role or its a coaching role.	S defines her role as facilitator, as helping a group of people understand their common objectives and assist them to plan how to achieve these objectives. In doing so, the facilitator remains "neutral" meaning he/she does not take a particular position in the discussion.
153-154/ You know like we will just get S out and she will help us get thinking and we will think together so I would call that kind of their partnership, so it was quite small you know so I will just come in at these pieces and help connect some dots - help facilitate, but they would totally do the lions share of the work, and deliver the work - so partnership would even be over stating the relationship.	Sarah described her work with participants as a partnership but she thinks that might be overstating it as the participants do most of the work, her role is to get them thinking, help them connect some dots.
155-167/ Sarah speaks of ownership of the project "so from a co-design point of view - the organization has to own it, if there is ownership from an external partner there is no longevity in the relationships, the engagement with people or any thing - so I would try not to be ever in a position where I was trying to own the project - so I will plug into support for a	From S's point of view on co-design is that the organization needs to own the process so there is longevity in the relationships and engagement. For her, it is very important to her not to own the project, she positions herself in more of a support role, to help share tools and build on what they are already doing.

team, that s where I position my self - I am just here to help you do what you do share some tools that kind of build on what you are already doing. In the health space.	
168-171/People really love to make you the expert, they really like to say Penny's the expert, that's a very common mind set, which I always feel quite uncomfortable with and because there are things that really trip you up in a co-design when you have a really strong sense of who has got the knowledge about what so the whole point of co-design is really not to be the expert".	S finds that commonly participants are more comfortable of her in the position of 'expert'. This makes her feel uncomfortable, because, for her, the whole point of co-design is not to be the expert.
183-200/ I have always had a mild aversion to the word creativity because I think there is so much more to it than being creative. I understand creativity as a way to open a space for people to explore. I think I just have this really arts and crafts idea of creativity and it's not about creative. I have a response to that like from an arts school space …no but I really think it is important because you are trying to create a space that is creative. So in a way it is creativity with a small 'c' not a big 'C'. I have multiple opinions on how it works.	S speaks of her "mild aversion" to the word "creativity' as it is most commonly linked with the idea of "arts practice". This association in her view can simplify what it means in practice and overlook the multiple options for how creativity can be applied.
201-207/ Sarah describes going into an ideation session … "we are going to generate a whole lot of creative ideas" We must select people to be in that session that can work like that (creative) …so they would work fast. If they are creative they can be and that is important in our process to co creation. In contrast I would work from a different point of view which is, everybody who is effected needs to be involved and we will have to work hard to enable those people to participate and think about what creativity means to those people. So it is less about creativity and more about participation".	S's point of view is that everybody who is affected by design needs to be involved; the work for her is to enable the people she works with to participate. In order to do this she needs to think about what creativity means to the people she works with. Her emphasis is less about creativity and more about participation.
208-224/ I have seen that other scale of go all the way through and let the young people have the idea, let them develop the content - let them cut the media let them produce the program and traditional experts in media productions, for the sake of that particular example, were kind of horrified because of the quality of what came out was not the standard that they were used to but the authenticity was like 260% because these young people had made themselves for themselves	S outlines her theory of 'scale of participation'. She describes feeling horrified at the low quality outcomes at the end of the scale that allows full participation (from the idea though to developing content physically) but on the other hand the authenticity was 260% It was for them selves made by them selves.
225-227/ For the purposes of what it was for, which was social cohesion and cultural diversity communities it was almost the only way you could have done it	Allowing participants full control over creative process was empowering and imperative.
227-230/ in a way so to me we gave them almost complete creative power and the creative director only helped them think about what they were doing - he did not make the decisions, so you could be at either end of the scale and that is a decision that you make about where you want to let people be	It depends on the project and who is leading it creatively. S feels that the person leading needs to make the decision about what level of involvement participants have.
248-251/ I probably simultaneously experience a really open sense of being ok with where a creative process goes and then at the same time totally strong idea of about what is required to get the project done, those two things.	S holds a tension between allowing participants the space to explore and the same time firmly guides the group toward an outcome.
251-255/ There are things that I am happy to let go and then there are things that I deeply care about. You just have to constantly examine what the	S reports needing to constantly examine her own motivations about the difference between the things she is fine about and the things she

motivations for those things are and probably what the motivation of not caring for certain things are.	cares about deeply which may lead to a strong idea of what is required.
261-271/ I am interested to observe how much people need to coalesce around an activity in order to achieve something. However it does not need be the activity that is important, it can be just a vehicle to work collectively around. You can let go quite a lot when you realize that the point is to get the team to be cohesive. For example, they may not produce a particular artifact, but it will enable the team to go on to do something else, that might be more successful together - and those two things are happening at the same time together in the co-design process.	S feels, the important thing is to give people an activity in order to achieve something together, collectively, it might not be the particular artefact that they produce but the process that has enabled them to work collectively which enables them to go on and do something else that might be more successful together, she identifies those two things that are happening at the same time within the co-design process.
284-289/ You are talking about humans working with humans, you know what I mean so they is a lot more relationship work than project work.	Because most to the work is done together, the process becomes more about relationship work that project work.
290-296/ Traditional design is very project, materials, technology heavy and I don't mean technology as in this kind, so when we are in the co-design or participatory or even in the design scale where you start to talk about design in the use of services and policy and stuff, much more talking about people in relationships and that process using design as the vehicle for it - you have to relinquish control	S states that traditional design the emphasis is on the project, materials, technology. In contrast, co- design, participatory design or service design, where the emphasis on talking about people and relationships. Design becomes the vehicle for relationships, so therefore is a need to relinquish control when dealing with humans.
314-323/ In the work that I do with innovation and change, none of those people have a design background, they have a health background, cultural arts background. What they do is a co-design process, a social innovation process. They would pull together, for example a project about long term conditions, the co-design group would include people with long term conditions, medical practitioners and people called in for they creativity. They would do a lot of ideation and comes back, but I would not call any of us the designer we are in a social innovation process. A model of a version of co-design a model for enabling that to happen - there is no lead role for a designer within that process, within that team.	None of the people that S works in groups with would call themselves designers, they come from health and cultural arts backgrounds but the process they use is co-design. She would not call any or the participants including her self a designer, we would describe it as being in a social innovation process.
327-328/ I use tools more conceptually than practically. I use four key principles, which are human centered, start from the outside in, start with the who first. Then make ideas tangible and visible - that's how we do our work to make things available for critique. We would not be talking we would be making and doing - collaboration and then learning by doing - We can't get to the answer by sitting around and talking we have to be doing and testing and how are we are going to do that.	S uses 'tools' more conceptually than practical, she terms it 'starting from the outside and going in'. You start by making ideas tangible and visible, to make things available for critique. She makes a strong point that it is making and doing over talking *"we can't get to the answer by sitting around and talking we have to be doing and testing"*
340-345/ Sarah is looking much further than design "like systems theory, complexity theory, community development, Kopapa Moari. Those kind of things to flesh out all the bits design does not do well. Also evaluation, social impact stuff like that. Design does not do well in a social context around relationship so I am looking for more, there is more - other richness.	S is also looking wider than just design processes, she gives examples of systems theory, complexity theory, community development, Kopapa Maorl in order to flesh out the areas that she feels design does not do so well in like evaluation, social impact, she speaks of design not doing so well in a social context around relationship, that there is other richness that could be added.

349-354/ Participatory design is all about politics as a academic tradition it is all about politics and people and the projects in the purpose of the people so it does exist within that discipline that is quite narrow - it is rich and deep and exciting but it is still a academic discipline which means there is a lot of weight around the processes that are quite hard to take out into the world that is not academic.	Participatory design is quite hard to take out into a world that is not academic. It is quite a narrow practice, it is also rich and deep and exciting.
362-367/ It is strange because design is a social practice and every decision you make is a political one so I think it is deeply problematic, especially as it is now seen as a vehicle for social change - I think lots of people have been doing that for a long time but now that government is investing in it and every designer coming out of design school wants to change the world with their design and I say well that is great but go and learn about ethics - that's a bit harsh	S sees than design, as a vehicle for social change is quite problematic, she says a lot of people have been using it in that way and now governments are investing in it, and designers coming out of design schools want to change the world with design, S strongly identifies that the lack of ethics embedded in design is what makes this so problematic.
382-393/ I think there is huge opportunity and students that I have worked with embrace it - they are challenged in that there is almost no support - there are a few students at universities doing co-design stuff, there are not many people around that can help them out - which is interesting I thought we might be a bit further along in a way and aging we probably need to bolster the education with more social process stuff.	S believes that there is a huge opportunity in education for co-design practices, those trying to are quite challenged in that there is almost no support, not many people around to help them out, she expresses some dismay in that she thought that this would be a bit further along by now and that bolstering education with more social process stuff could help.
Defiantly I think the question of expertise always **377-381/** comes up in that context of design - like who is the expert and who makes the decisions and I just think you make a political decision about that - it is up to your personal politics that you decide if you want to be authoritarian designer or whether to take a different position it is a philosophical that you take	For S it is up to the individual as to whether they want to be an authoritarian designer or whether to take a different position; she sees it as a political decision.
397-404/ I think I do - almost every, radically different ways - in the recent work we have done in the long term conditions and stuff I am always eternally grateful for the time people will give and the depth they are willing to go to and the willingness to share and some of the stories that they contribute they have not ever talked about them before and they are deeply traumatic and they are deeply emotional they will contribute those because they want someone else to benefit from the process that they have been through them selves and that is very humbling that is a very privileged place that people offer you those things.	S feels personally transformed by the processes she works with in radically different ways. She expresses gratitude to participants who give their time and the depth they are will go to and the willingness to share and the stories they contribute, sometimes they have never talked about them before and they can be deeply traumatic experiences and they are deeply emotional and they are willing to contribute because someone else might benefit from the process that they have been through themselves. She finds this very humbling and describes it as a privileged place that people offer you those things.
405-415/ We are working in the workshops together and there will be guys that will be sharing about they addiction story and where they are at with their recovery and stuff - you are constantly, I think one of the challenges for me is that on the one hand it is work and on the other hand it is life - it is these peoples lives that we are dealing with and there is mental heath stuff and its these young peoples lives and there is a degree of risk in the work, if you know people get upset and you may have an event that may trigger someone- you know it is really real, its really real - you could have a profoundly lasting	S gives an example of being in workshops and people sharing stories of addiction and recovery, it is a challenge for S *"I think one of the challenges for me is that on the one hand it is work and on the other hand it is life"* She is very aware that it is peoples lives she is dealing with, that it involves peoples mental health therefore there is a degree of risk in the work, there could be an instance of someone being triggered by something that happens within the process, *"you know it is really real, its really real - you could have a profoundly lasting effect*

effect one somebody through the actions that we take - so in that sense it is transformative.	*one somebody through the actions that we take"* So in that sense S finds the process transformative.
417-422/ you get a bunch of people with no idea of where that is going to go and cool shit happens and you go yep - largely speaking when you put people in a room you give them a little space, a few things to work with and they will come out with some really amazing stuff so in that sense it is really affirming in a way cause you kind of let go and in that way it is frequently transformative	S feels the co-design process is frequently transformative, generally speaking if you put people in a room, give them some space and a few things to work with they will come up with some really amazing stuff, she feels really affirmed by that her position is to let go and let it happen.
426-430/ Its really hard because its really hard to demonstrate ROI on this front and there has been a lot of work and efforts to try - it is quite hard because you don't have a control group to compare to and I that I think it is really important work and I wish someone would go ahead and do it - and I don't really know any other way to do it	When asked about co-design as a way to innovation S feels that it is hard to demonstrate a return on investment because despite the work done in this area it is still hard because of a lack of a control group to compare, she wishes more work would be done in this area as she feels it is really important.
433-435/ Being very really realistic about what humans, what we are like and having to engage in the realities of that all the time	S feels that having to engage in the realities of what it means to be human is part of the work of co-design.
435-447/ For me it is much less about the projects, less about what we discover through the work and what we enable in people so if you can build an elasticity and an openness and a risk taking, without using that work risk cause it gets used all the time and it is more about giving the people the freedom to be genuinely experimental- and oh that did not work that's ok - so what it comes down to often is people just want to demonstrate value in what ever they do they want to do well basically most of the time- so we can come up with great projects but they don't get implemented because the authorizing environment or the context in which the great idea should exist has not been,- is not the right conditions	For S it is more about what the work enables in people around building elasticity, openness and risk taking than the project itself. When using the word risk, S seems careful to explain what that word means as she feels it is often over used, for her it is about giving people freedom to be genuinely experimental.
453-459/ Change is still just about the people in the room who are going to make the decisions at the time just coming to the reflection about where the effort actually lies and where the change happens making sure individuals feel strong and resilient and capable of making a contribution and then they are more likely to be able to do those things so at the end of the day that is what our work is trying to do build resilience in people regardless of what the project is.	When S was asked about her thought of the extent that a co-design process can effect change, she felt like that was a big question, About the people involved in making decisions reflecting on where the work needs to happen in order to effect a change and the environment that supports or fosters resilience so that people feel capable of making a contribution to make that happen, so her work focuses on building the resilience no matter what the project is.

3. Conner: Meaning Unit Table

Natural Meaning Units *Expressed in the interviewed participant's language as far as possible.*	Transformed Meaning Units *The transformed meaning units, of each meaning unit, relevant for the phenomena of the "experience" of a co-design practitioner.*
31-42/ It was about moving from 'we do human centred design which means we do a whole bunch of interviews in peoples homes and we create personae's and journey models and customer needs statements and that's how we keep the face and voice of the customer front	C's motivation to use co-design came from wanting to explore if there was a better way to involve people into the design process, a participatory model. He outlines the human centered design approach his practice currently uses as one that extracts information from

and centre of the design process so that is traditionally how we would do things and then with co-design for us it is wondering if there is a better way and exploring how you might involve the people you might involve the people you are designing for in the design process, more of an active contributor kind of model rather than seeing them as just people that you extract information from and build insights about	people in order to build insights but it does not actively engage them.
42-45/ I don't actually so I consider myself quite new to co-design and I have attempted to try it out a couple of times but I don't think that we do co-design.	Although C has actively attempted using co-design practices he expresses a reluctance to call what he does as co-design. C has attempted to try out co-design within his existing business but does not call what they do co-design.
48-58/To me I see the ultimate benefit is - it feels like it is on the continuum of human centred design where on one end you have the designer who generated empathy and insight for people and their needs and then uses that to create some kind of solution and the other end which is the co-design end for me where the people you are designing for are doing a good chunk of the design process for themselves so my believe is that potentially leads to solutions that are even better designed for the people who will use them and even more reflective of the peoples needs and their wider environments and all that sort of good stuff so I think it is about better solutions it seems like a bit of a means to that end	C uses the idea of a continuum where at the user-centred end, designers generate empathy and insight for people and their needs and at the other end sits co-design where users are actively engaged in the design process for themselves. He identifies this increased use of user engagement as a potential benefit to co-design practice. He believes that it could lead to solutions that are even better designed for people that will use them and more reflective of themselves and their needs and wider environments. The promise and the potential are better solutions.
71-75/ In terms of how I saw my role - I saw it as one of facilitator lead facilitator and champion of the process and I think the client representatives saw me in a similar light as I have had some conversations with them after the fact	C describes his role as lead facilitator and champion of the process – someone who takes an extraordinary interest in the implementation of the success of a project, sometimes called a change agent or change advocate, he felt the client representatives he spoke with saw him in a similar light
76-82/ It was very much the case of working within an existing project and the relationship with the client and the team and it was a case of us suggesting we think there is value of trying out something slightly different here and the reason that we want to try this is to have the kids more directly involved in crafting the system that they are going to use and the client said yes that is great it fits in with a lot of our philosophies about how children, what roles children should play in education	C found that the methodologies of the process he proposed and the philosophies of the client matched up. This identification of a process that allowed for direct involvement by the children matched with the client's views of what roles children should play in their own education.
83-88/ The main thing I took away from interacting with the kids around what it means to participate in a co-design process was a real - they were blown away by the fact that they are being asked to even be relied on to contribute at that level but I got the impression that it was not the norm for them to be given so much power and involvement in creating something that they might use.	C's main take away from interacting with the group of participating children was that, they were blown-away by being asked to contribute to the project. C felt that the kids he was working with were not familiar with being given a high level or control and involvement in creating something that they might use themselves for their own education.
93-103/ We would do things like print out key parts of the screen shots and had the kids working in teams to build on the screen shots	C felt that this level of involvement resulted in the children having a stunned reaction to be given so much control. They were not only being

153

with new interfaces and elements so they were just drawing on these screen shots so from their comments and reactions it seemed like they were quite sort of stunned that not only were these people asking us what we think they were handing over the reins to have a go at it ourselves and I think on one hand that was cool for them and on the other hand they didn't know quite what to do with it and so that is one of the learning's for me about how you set these projects up how you create the right conditions tools and techniques so that participants feel comfortable with what the opportunity is and feel comfortable seizing it	asked what they think, but they were handed the reins to have a go themselves. He felt that on one hand it was cool for them, and on the other that they did not really know how to be involved. For C that was a learning experience on how to set projects up and create the right conditions, which tools and techniques you use, so that participants feel comfortable with seizing that opportunity.
128-135/ On the whole I was 50/50 on the value of what we got out of the co-design approach. There was a learning experience for us. It was incredibly valuable in terms of contributing to the innovation process but for this particular process the jury is still out for me. I think that is due to a combination of factors that include, inexperience with the process, especially the techniques. It was very much a first experiment, so I am sure there is stuff you would improve with the facilitation, with the planning of setting up of the whole process.	After C's attempt at implementing a co-design process he came out of it feeling undecided about the value of using a co-design approach. He acknowledged that he was inexperienced with the process but that could improve with more experience and learning about how to set up and facilitate a co-design project.
136-146/ It felt to me that the value of the co-design process was about the kids trying a different approach. They were excited to have an opportunity to contribute but because the process seemed unfamiliar to them, they did not quite know how to. I suspect it is quite different to how they normally behave and operate in school. I think that going through quite a traditional education experience, which from my experience, tends to focus around getting to the right answer as quickly as possible and learning traditional rules and formulas.	C's perception was that this process was significantly different from the one these children would normally experience. He observed that they were excited to contribute. He suspected that there might have been a tension for them between the traditional education experience that focuses on learning rules and formulas to get to the right answer. In contrast the co-design process, is a process of discovery. C feels It requires some tolerance of sitting in a phase of ambiguity whilst discovering.
145-150/ I don't know whether even with the best facilitation in the world and the best scaffolding and set up that we would have broken through that fundamental barrier. That limited the value of what we did. The kids were not mentally in the right place. I don't know yet about applying co-design techniques with enough audiences and enough different contexts to know that might change but I continue to reflect on this project.	C questions whether improved facilitation and scaffolding of the process would have been enough to break though that (inexperience with design processes) barrier, he felt like they where not mentally in the right place which he felt limited the value of what they did. He acknowledges that his experience is limited in the process and continues to reflect on this.
153-157/ I think that is a really interesting point, who the people you are working with and how flexible they are. I wonder whether it is particularly students. Some seem to be dependent on structures they are given and interpretation skills seem limited. Perhaps it is something to do with the education structures they are coming from.	C is left wondering how much has to do with the people you are working with, how flexible and open to the process they are. He questions the education structures that the students are coming through, to him they seem dependent on these structures they are given and as a consequence their interpretation skills seem limited.
159-166/ The difference between an adult, who normally stands up the front of the class and tells me what to do and tells me if it is right or not, versus there is an adult standing up in front of me now saying …here's what I would like you to do …and I don't understand it completely but they want me to have a go and they are not ticking it off not saying you did the right thing	C is not sure that the students he worked with where able to cope with a creative ambiguous activity. It leaves him feeling a little bit skeptical of the co-design process. He is not convinced that just any audience or set of participants can cope with a design process being handed over to them. Especially, if they have no prior experience of working in that way.

Natural Meaning Units	Transformed Meaning Units
here …maybe that's going back to the question of ambiguity it raises. If I am being completely honest I am still a little bit skeptical of co-design, because I am not totally convinced that you can hand the design process over to any old audience or set of participants.	
167-175/ I am not convinced that that is the right thing to do and even with the best facilitation the best processes part of me still thinks that there is quite a unique skill set that tends to sit with people who call themselves designers of some sort that is necessary to that process that does not just sit in the facilitator role it also sits in the participants role and to what extent are people naturally capable of applying that skill set if they are not semI experienced with design work	C is not convinced co-design's inclusion of non-designers in co-design is very effective, even with the best facilitation. He still thinks that designers possess a unique skill set that is necessary to the creative process. He questions, to what extent are people naturally capable of applying that skill set if they are not as least semi-experienced with design work.
178-183/ I consider myself a novice and I have not seen or witnessed much co-design in action from other people and I am hopeful that if I was to go and sit in on a session on a fly on the wall by a really experienced co-design facilitator that they would be able to take that same set of kids I worked with and really weave some magic with them - I am optimistic but have that skepticism as well	C is very aware that he has limited experience in co-design in practice, he is hopeful that by observing an experienced facilitator he may be able to transfer that knowledge more effectively with the same set of participants. He says; …weave some magic. Which reflects both his skepticism and optimism of his current ability to apply a co-design process.
187-195/ I feel like it is the kind of thing where the whole design industry could easily get to the place where we say yeah we do co-design and what that means is we run workshops in a particular way or we have people preform a certain set of activities but as to whether that is delivering a huge amount of added value over how we might have traditionally run things - I can see we could be stuck in a little bit of a kind of lip service like we are actually faking it we are not really doing co-design and we are doing some things differently but it is not adding a whole lot of value	C questions design industries motives in adopting co-design as a new practice using it as a technique or activity without understanding the depth of the practice. He uses descriptions such as lip services and faking it and questions the real value added by doing this.
216-224/ I was interested in interaction design - digital interaction design and having kids participate in that process I think I was able to find some stuff specifically about that and found a few key techniques that I thought could work for us and slightly adapt them for our setting so that was all pretty cool and exciting that part of the process - there is stuff here I can do here that has worked for other people and it is quite a confidence builder - to get to that other part of the process and question - wow how much did we really get out of that?	C was interested adapting co-design techniques to his project, he found that part of the process cool and exciting, he then speaks of getting to the other part of the process that is the practical application and then question how much value came out of that.

4. Helen: Meaning Unit Table

Natural Meaning Units *Expressed in the interviewed participant's language as far as possible.*	Transformed Meaning Units *The transformed meaning units, of each meaning unit, relevant for the phenomena of the "experience" of a co-design practitioner.*

21-23/ My focus is much more on experience-based co-design which involves patience and families and it's a slightly different method from how I see as the traditional design method.	H's focus is on experience based co-design, she sees this as a slightly different focus to traditional user centered design methods
24-28/ Because for me a lot of the traditional design work does a lot of emersion but its us going into someone else's world and trying to understand it whereas experience based co-design has much more of a focus on in my opinion anyway, patience and families telling their own experience and identifying the touch points themselves.	H identifies the differences between traditional user centered design methods and experience based co-design; in her opinion, one method is to go in and try to understand someone else's world, and the other where the user is (the patient or family) telling their own story and identifying the touch points them selves.
31-35/ The design lab is within our performance improvement team, the guy works within our team, they also operate kind of as a separate entity, like they don't all come to our meetings but there is a lot of cross over and often within my work we get the designers within the lab to do a specific piece of work but we generally manage the projects	H is situated within a performance improvement team, is a lot of cross over with designers, the design lab sits within the performance improvement team but they still operate as a separate entity, they are called in to do specific parts of the work but do not generally manage the projects.
48-51/ We generally tend to pull people up on specific projects because the idea is that we want to build up our own capacity internally rather pulling people in all the time - so if it is a big complex project or we want help with particular methods we would contract someone in.	H's team is interested in building capacity within they own team internally, rather than relying on outside contractors.
65-68/ If you look at the reasons why people don't want to do it, probably one of them would be time, it is seen as a very time intensive method to do, if you follow the whole model right through, I think the time would probably be the main issue.	Time is a significant barrier to people taking up co-design, it is seen as very time intensive if you follow the whole model right through.
There are probably some other issues around a lot of the methods used around the hospitals are very evidenced based, and the evidence based for experience based co-design is fairly new - its not unheard of	Co-design can be a challenging method for people who are more accustomed to goal-orientated outcomes.
68-71/ I agree with that but it is not something that would be emphasized in a medical setting we tend to emphasis – (when we are dealing with very clinical people they are very much process orientated) a lot about the method is - being comfortable to dealing with uncertainty and that comfortableness is ok but we don't really go to much into emphasizing that everybody is creative.	H makes a point not emphasis creativity as a process in a medical setting as the people that work there, work from a clinical model.
115-118/ think most people once they have tried out the tools would give them a go but we probably would not talk about it on a theoretical level we would just do it so at first they are quite reluctant and then something switches inside their head and they really enjoy it.	H works at a practical not theoretical level, trying out a variety of prototyping materials and different kinds of different approaches and generally just having a go. She finds that at first participants can be quite reluctant, but in time they get it and go on to really enjoy it.
148-155/ You have these projects where you are not sure what you want to do and that is becoming more acceptable for example we are currently working on a project in the acute mental health in patient unit and basically what they have said is - we just want to work out what works well and what doesn't and what people experience and that's it - that is all they said - so no other parameters so that's really good - that is the ideal project but I am not sure that would apply on all projects just some.	H has noticed that there is a growing acceptance to open ended experience based methods, especially around problems that are more complex.

159-164/ I am much more comfortable with it now with working with uncertain outcomes than I used to be -I used to feel really uncomfortable going into that I am not really at the DMAIC end of the spectrum but to come in and say well we don't know what we are going to find and we don't know what people are going to say but there is a structure around the process so I am more comfortable with that part of the project but there are still parts of it that I am uncomfortable.	It was uncomfortable at first going into structured research processes within the hospital and trying to explain the open mindset approach of co-design. It is difficult to explain because input from users and outcomes are unknown.
165-171/I am really enjoying it and I think it works well with staff because there has been some problems in the unit but we are not coming with any agenda and that can be refreshing for staff so we don't have any agenda to cut anything or any thing like that we are just coming in and say we have absolutely no agenda, we have a structure for engaging we are just going to come up with what some of the experiences are and it seems to be going down ok in that quite complex political environment.	It can be a refreshing difference for hospital staff to be part of a process where there is no specific agenda, as most of the time they work in quite a complex political environment.
174-176/Good question - I am not 100% sure I think it is probably a number of individuals who are really keen on the method and who have risen to a level of influence	H has found that hospitals are more open to the co-design process, as people that are interested and support the method have risen to levels of influence.
179-188/I have had a bit of a deliberate strategy to try and influence medical people so in a sense article published was in a NZ medical journal - there is a bit of a question why we went for that type of journal to publish and it was deliberate to try and inform people who are more likely to be less accepting of the method - it gives it a lot more credibility - like doctors with look at medical journals and they quote them and cite them - if we had published in some design journal which has respect among the design community I just don't know that there would be the interested in that - that is something I want to do over the next year, I want to try and get some more articles published at least written up.	Writing articles about co-design and publishing in medical journals, as opposed to design journals gives a wider audience more access.
207-213/The wards been built - and she said that was one of the best moments of her career was actually looking around the ward and seeing the design features that had been incorporated - influenced by - obviously not solely - by the patience and families	H has observed that patients and families at the hospital recognize that design brings a lot of value to their experience of the hospital.
225-232/I used to get quite frustrated but I think the way I look at it is even the ones that are really not co-design I kind of look at it like as shifts in thinking - it is a small shift in someone's thinking so if someone comes to me and says How can we engage patience or do an interview then it is an opportunity to educate them about the method.	When external factors limit a co-design project H used to get quite frustrated, now she has come to value even small shifts in thinking and opportunities to educate people on the methods even though it is not really a co-design in practice.
242-249/Yeah that's interesting - so what I call a pure designers ones who have trained in that background rather that a mix of all trades probably the biggest issue is that we would have is around language because people seem to like very set language and a very set method and the more linear and process orientated you are the more difficulty you have when people use different terminology and I have had a few battles	H defines people who have trained specifically in design as 'pure designers' rather than others who come from varied professional backgrounds. As a consequence she sees a problem around language and terminology, if people are locked into very set methods there will be more difficulty with different terminology.

with people around method and language because if I call something engagement and they call it emersion it immediately confuses people.	
They either want one or the other and I also don't always think some design actually engages with because one of the philosophies of experience based co-design is more of an equal partnership between patients and families and in an ideal world they would be involved in the set up of the project how we design on what methods we use - identification of the touch points of significance, implementation of the outcomes.	H seems skeptical that design actually engages with people, in contrast she says that experience based co-design has a philosophy of equal partnership. In an ideal world patients and families would be involved in the set up of the project, design and methods used, identification of significant touch points and implementation of outcomes.
249-254/The other debate that can be differ cult is a lot of design just focuses on just going and doing it but within a hospital there is a lot of ethics in talking with patience like if you are in a shopping mall you can probably set up interviews and just do it but within a hospital you have to look at is it a vulnerable population is there any ethical considerations do we need to go to the ethics committee so even though I get frustrated by delays I think designers get even more frustrated.	The action-orientated nature of design is unrealistic in a hospital context because of ethical considerations of talking with patients. Delays from going through an ethics committee process can be frustrating for her. She feels like it would be even more frustrating for designs as they are not familiar with the ethics process.
257-267/I don't know if students get taught that aspect - there's a thing around mobility access and people having difficulty getting around the hospital in wheel chairs or with sticks we just had a very small group and we were just doing a quick piece of work and the designer said lets go and talk to people and take photos and I said well we cant actually take photos of patience or staff - you can take them of staff if they give permission.	Because ethics is not commonly embedded in design, designers (esp. students) often do not consider it as part of the project process. They assume that they can go in and talk to people, take photos etc. H has to inform them that they need permission.
With patience there is a process you have to go through to get consent you know you cant just go around with your camera and I felt a bit like I was stemming him a bit saying no you cant but there is a tug between doing things quickly - being agile and the ethics of the population you are working with.	H states, that because of the consent process, there is a tension between being agile and ethics in the hospital population
There is a real lack of training - we tried to do some a couple of years ago - don't think we quite got it right, we will have to set something up - people are always asking about external training- there is some there is some but there is not something that I can say like this is just right, this will work for you because there are so many limitations around time with health.	Because of considerations like ethics and time constraints within the health sector, H does not feel like there is external training in co-design methods that fits particularly well, she is aware of the lack of training available
That's a really interesting process and they is just some small times like in this acute mental health unit we cant really interview the patients because they are not really well enough to be interviewed but we were allowed to go, every so often they have a joint staff and patient BBQ and we were allowed to go in to this BBQ.	There are sometimes informal opportunities for co-design to be involved within the hospital environments.
We talked to about 10 in patients and it just felt really good obviously it varied the depth of the comments but I just thought this is really great that we are sitting here in a acute ward with acutely unwell people and we are still able to engage them and get their views on things.	H felt informal opportunities for engagement was a really great way to do co-design project work with people whom where acutely unwell.
At first I was not that keen on using it when I first saw it but it could be adapted for different groups and get such depths of information so they are photographs with valor, it was designed by an	The tool was designed by an external design service and at first she was not keen on it but saw it's value when she realized it could be adapted for different groups and get a

	significant depth of information.
So one of them was this clock so we just put a picture of a clock up with polarized views so staff picked the clock because every thing races by and they haven't got enough time to do it and as you can imagine the in patients picked the clock because time goes so slowly and they get so bored	H outlined a particularly powerful example of a picture of a clock. This image was interested as it brought up polarized views from patients and staff. Staff picked the clock because everything races by and they feel like they never have enough time to get things done. Patients picked the clock because for them they felt like time goes so slowly and they get bored.
It was just quite a powerful way of getting information and presenting it back and that is all through design and piloting tools	H felt this use of design and piloting tools was quite a powerful way to both get information and present it back.
I don't think the last time we worked in a mental health unit that was in patient older persons mental health which was over 65 age we could not even go and observe so it is just a shift over time the first unit the staff were very reluctant and protective of their patients and us being involved and I don't know if this is a different unit but that shift is quite significant that we could actually go in and they could show us around the unit and we were able to do this and the occupational therapist art therapy around some of the questions we wanted to ask so to me that was really good	H feels like there has been a shift in attitudes over time around gaining access to these older patients in mental health units. Previously staff had been very reluctant and protective of their patients and H and her colleagues were not even able to go in and observe, now they allow them to go in and are shown around, and are able to use these tools.

5. Oliver: Meaning Unit Table

Natural Meaning Units *Expressed in the interviewed participant's language as far as possible*	Transformed Meaning Units *The transformed meaning units, of each meaning unit, relevant for the phenomena of the "experience" of a co-design practitioner.*
188-191/ If you want to do a technique or a tool with a group of people, your technique is only as good as your ability to be able to show people how to do it, so you might be a guru in that technique but you have failed unless they can do it really well.	For O no matter how good you are at using a creative tool or technique with a group you have failed unless you are able to show people how to do it. Not only a sense of expertise in the act but an ability to dismember how those acts have been embodied …how highly subjective feelings must be made sharable.
191-192/ For me creatively there is a huge tension, so I am only as good as my ability to teach people to do something in a couple hours timeframe or less, so huge pressure,	Time pressure causes a huge tension for O creatively because there is often a sometimes only a couple of hours to teach people.
192-195/ You also have to let go of a lot of stuff and you have to ask yourself what is the crucial task here, the out come and what is the best way to get to that and you leave the guru at the door and you often leave technique at the door and you, it forces you to be really creative in unexpected ways is my view of it.	What is the crucial task, the outcome and what is the best way to get to that, in his view the best way is to let go, to leave the guru at the door, often leave the technique at the door and this forces you to be creative in unexpected ways.
203-206/ I ask myself, is what I am doing actually making sense, what are we gaining, where is the balance, how valid is what I am doing?	Vigilance through self questioning emerges for O as an integral part of his process as facilitator
206-210/ Questions of expertise fit within a framework of co-design because you are always asking how much ownership do people have over this process, over the	O feels that these questions fit within co-design because ownership of the project and empowerment of the participants to be self-directing are fundamental to principles of co-

project, over the technique - how much is let go and how much handing over so they can walk away and do stuff for themselves is core to the practice.	design.
210-213/ Co-design was a 5-10 year transition for me, quite a journey, with very awkward moments as it is not articulated well territory, it has not been written about a lot.	O describes his journey as a huge transition from what he previously did to working within a co-design framework. He expresses feelings of awkwardness as the territory of co design is not well articulated – not a lot has been written about it.
213-216/ You get used to trusting yourself to have a sense if where you want to go with things even though it feels like your are in a boat riding up a stream not knowing where the stream is going to.	Through experience O has gotten used to trusting himself to have a sense of where he wants to go with things even though the outcomes are uncertain. He uses a metaphor of being in a boat riding up a stream, not knowing where the stream is going to and getting used to trusting himself to have a sense of where he wants to go with things.
218-224/ You get used to holding a group in a process that is new to them. That holding feels like it has many layers for me and there is a lot going on in my head, are the people happy? is my process working?, is it warm enough?. I am giving my best effort to show them what I think is a good way of doing something and what the outcomes are.	O is very attuned and aware of the needs of the group participating in a process that is new to them. He describes it as feeling like it has many layers and that there is a lot going on. His descriptions range from how he is guiding the process, through to the physical and emotional comfort of the participants.
228-232/ So personally I am naturally creative what ever that means and professionally I had a problem with research, you do this amazing research thing - you present it or hand it over in some way and you walk away and its always just felt so incomplete, and often it would become something that was globally wrong, so that was the initial appeal of design.	The appeal of design for O is designs capacity to have a fully implemented outcome, in contrast to researching where you present your work and hand it over to someone else to implement it. The process of the researcher feels very incomplete for O.
233-236/ I have always been fascinated by service design, because it deals with what is complicated and intangible and all those things so I have personality and professionally has just gravitated toward that.	Personally and professionally O has gravitated toward the complicated and intangible nature of the problems service design deals with.
255-261/ So I am a hermit - I am an introvert, so I have changed - now I spend all my time with people. I am intuitive and reflective, and I am very interested in how social stuff works, so I have learned to be extrovert and perhaps in the past I over compensated.	O has had an internal shift from feeling like an introvert to learning to be extrovert and that reflects on professional work. The shift for O felt like he moved from having a relatively analytic perspective to more holistic or systemic in his thinking.
261-264/ So when I teach co design I teach I spend a good amount of that time teaching people to be human, what does it mean to be human and for example what sensations or feelings do we use to make sense of things and so that is how you empathize and that is how you analyse.	When O teaches co-design for him it is about a focus on what it means to be human that is what sensations or feelings do we use to make sense of things and how you use that to empathize and analyse.

265-266/ I do this thing …so that is like a theorized working model of how simple co design is as opposed to all the other design stuff you need to know and all the research stuff you need to know.	He uses this as a theorized working model of how simple co design is as opposed to all of the design stuff and research stuff you need to know.
267-270/ I tend to be a de-mythologizer and a crystallizer of basic human truths, so when you do an interview …you engage with the person not with the question, I try to get a feel for them.	O describes himself as a de-mythologizer a crystallizer of basic human truths. In the context of interviews it is important for him to engage with the person not with the question, try to get a feel for the people he works with.
303-308/ *Does co-design make a difference*? I have no idea, that sense that people make sense of the world together, and that is where I am happiest in a workshop where we are doing that because it feels like we are making something amazing together, that feeling like this is so cool, it is not me struggling on my own, we are all struggling together and it is only ever going to make partial sense - so it is kind of a Zen thing a Buddhist Zen thing, so does it really make a difference - I am really sceptical that designers and co designers or what ever can actually make a difference, so I think part of our metrology is that is why we are there, but I have my doubts	For O there is a tension on one hand he explains that because he is an introvert, the world does not make sense to him but in his attempt to try to make sense of the world he has realized that it is impossible and that in turn teaches him acceptance (he describes it as kind of a Zen thing) and that there are many senses to be made and that insight helps him to appreciate the worlds of others and he feels happy with that.
340-346/ As I age I get more interested in the idea of wisdom - that to see the problem you need to see the system and it takes a lot of wisdom to see the way though, complicated things and solve them through wisdom, people don't write about it - it s new age - but then how do you articulate co design in those terms - it gets a bit freaky - what is it - a lived experience - they is also that discovery of someone else - that's that the other thing we struggle with - the western perspective of creativity and it is only a contract there's a team that is different from a group of people creating and you can't articulate it well	Ollie speaks of being interested in the idea of wisdom as he ages, he is interested in how that idea may fit with a co design practice, the idea that you need a lot of wisdom to see your way through complex problems, he believes that again it is unarticulated territory and it has the potential to get a bit freaky or perceived as new age. On wisdom, O is alludes here to different types of knowing …the type of knowing that is understood in any kind of design process is the understanding the comes from acting out what we know by experiencing it in a way that our bodily engagement facilitates understanding.
350-355/ Alternative models that I bring to mind are like the reflective group practice like the Hui in the Maori tradition - its a bit more - in its essence it is group decision making so there are practices where you listen to people carefully - you think about it for a while and you reflect on it and then you stand up and respond and then you sit down and you have said it there is no litigation its very considerate in that way, its very secure.	O makes a point about the narrow western perspective of creativity. He suggests a alternative cultural framework from of the reflective group practice in Maori tradition of the Hui …in his view it is in essence a group decision making process, where you listen to people carefully, you think about it, reflect on it and then stand up and respond and then you sit down and when you have said it there is no litigation, he describes it as considerate and very secure.

375-380/ One thing I would add is that the service design industry in general is still very wedded to design thinking, and that bugs me a lot because I don't think that that is actually it- so there is a lot of took kit stuff — do we have the right tool kit and that really bugs me because I think they are filling in templates and not going into hard core enquiry and that bugs me kind of like every time I see a tool I reach for my gun - I am a little bit bigoted - it does bug me	Oliver has a strong negative reaction to the use and reliance of toolkits and templates if they are used to replace more rigorous enquiry.

6. Johanna: Meaning Units Table

Natural Meaning Units *Expressed in the interviewed participant's language as far as possible*	**Transformed Meaning Units** *The transformed meaning units, of each meaning unit, relevant for the phenomena of the "experience" of a co-design practitioner.*
49-53/ You can use design thinking to help businesses to re design their businesses around the customer and a lot of people with graphic design – you know visual design, communication, organization design and then system design and system design is what I find really interesting.	J is really interested in many aspects of design thinking and how it contributes to redesigning business around the customer …she is especially interested in system design.
53-58/ This job came up with the co-design lab and the government wanted to experiment with these methodologies to deliver better value and also get away from the siloes we know the question, we know the answer and then deliver it - to see if we could prove that this stuff works better and the only way that you can prove better.	J is part of an experimental project that was set up with government support to experiment with methodologies of co design. To see if it delivered better value, in particular to get away from silo solutions, to prove if there is a better way of doing things.
58-63/ Especially in this economic environment is it has to be cheaper and given that governments services are all delivered down silos you know, they design, they implement, and then they say they evaluate …but they don't …but no one ever owns up to a program not working because they might lose their jobs and the communities might lose there funding or contracts.	She explains that one of the deliverables of the experiment is that it has to be cheaper to deliver than the way that government services are currently delivered. Also there is a lot at stake for government organizations if they report during the evaluation of a project that it does not work as they may lose their funding, because of this J thinks that they do not own up to it.
65-67/ There is this fiction that we deliver great services but when it comes to longitudinal studies of what's changing or not …nothing is changing, so really persistent social problems like family violence … there's been programs and ideas and money that's been tried over the years but yet it is no different.	J believes there is a fiction to government delivering great services, longitude studies according to her report that nothing is changing, persistent social problems continue despite programs, ideas and money that have been tried over the years.
68-71/ The idea is how do we actually shift the needle by collaborating across government both central and local which can be quite difficult in … because the government that is right wing and …. Council which is left wing.	J feels that it is difficult collaborating across central and local government when there are opposing political ideologies.
95-97/ I suppose like any other innovation unit the theory is that if you take things outside of the mother ship and you make a neutral space where the general rules don't apply you are far more likely to change.	J feels you are more likely to achieve change and innovation if you can work creatively in a neutral space away from the rules and demands of everyday work.
99-104/ The challenge is that if you take stuff out is you have to bring it back into the system the way that we try to do that is to bring people from council and central government and these organizations together and to work intensively for	J's way of working is to bring together people from council and central government together, provide a neutral space for working intensively so they can discover a new way of working, the challenge is, when you work outside of the system, you have to

say four months on a project - we see the lab as being a neutral sand pit and they can discover a new way of working.	find ways of bringing it back in.
106-107/ The idea is that they have had a mind set change and then they go back to the mother ship and they become the change agents that make it happen.	Having time away from their own organisations allows participants space to gain new perspectives. Ideally they take their newly found insights back to the organisations and continue to work with co-design methods to create change.
117-121/ As a director my role is to reach into the system and find the willingness and where the heat is where people want to solve problems but where it is not so hot - so finding the just right porridge of an area to play in, and then influencing people, because I can't make them to, contribute their resources.	J's role is director, she looks for places where there is a willingness in people working within the government systems to want to solve problems.
121-125/ We are asking people to come for four months, so my role is to try and get the resources, the political buy in and then try to shield the people doing the design process from the politics and my other role is to tell the stories that advocate and show where the differences are	J describes two parts to her role, one is to get resources and political buy in and to shield the people involved in this process from the politics. The other is to advocate the methods of co-design and show how it is different from usual processes that they might traditionally use.
125-129/ I speak at conferences, so there is the social impact conference in …, I suppose it is to tell the story and to spread the word, we all know that if you get credibility from outside it is much better than you telling the story, I suppose my role is - I try to unlock resources, topple hurdles and spread the word and tell the story.	J describes her role is action orientated, unlocking resources, toppling hurdles, spreading the word and telling the story of co-design.
135-138/ So the role of the designer for me is a coaching role, I have been in the teams as well as managing them, to actually find out, undreamt of possibilities, all a designer is an un locker and a conduit of a different perspective,	J sees a designer as someone who explores different perspectives, to find out what is possible. She currently sees her role as a coaching role, she has experienced being both positions of being in the team and managing the team.
141-145/ Generally people want meaning in their lives and seek it in different ways I think the role of the designer is to show where is the meaning and putting it in a way it is attractive to people so whether that be advertising, service design, designing systems.	J identifies meaning as central to what people seek in their lives, she sees the role of the designer is to show people where that meaning is, generally in a way that is attractive to people, whether it is in advertising, service design or designing systems.
145-150/ I guess it is about curating, understanding, and coaching people to understand what they already know and reflect that back and then create experiences, make it easy, relevant meaningful for people to do something, design without doing is just flatness, design needs to be a catalyst for something whether it is a mind shift, some understanding, an action something you want people to do because you want them to think differently about communities or drive slower you know there is always some kind of action otherwise it is not functional not meaningful	J is very clear about what see believes meaningful design needs to be a catalyst, it could be a prompt or a mind shift, some understanding, an action. There has to be some kind of action, otherwise it is not functional, not meaningful.
153-157/ A lot of people have a perception of design as being elite and narrow, snobbish, high end version of things people can find that quite intimidating, people can think design is not for me but actually we design things all the time, we are all designers, whether they are aware of it or not so for me its that purposeful reflection and uncovering.	J looks beyond narrow identity stereotypes of a designer, as everyday people design things all of the time even if they are not be aware it. The essence of design for J is about purposeful reflection and uncovering.
157-162/ In the team we have people from lots of different backgrounds, as you say really eclectic,	J describes the people in her co-design team as eclectic, they come from many different

so they all share this sense of …they all want to give something back …its kind of a humble its not the elite thing of wanting to put a certain thing on you … it's a really open and learning mindset and what to discover and so in that setting designers who are acting that way.	backgrounds, she identifies that they are generous to each other, that is incorporated into their values and work.
168-170/ I suppose where it is that aspect of social impact and action you are designing a system that supports experiences – so I suppose it is a slightly different part of the design field.	J sees the area of social impact that she works in as a slightly different part of the design field. They are focused on designing systems that support experiences, in contrast to designing products or artifacts.
170-173/ But one of the worst things a designer could do is be closed or have a fixed mind set only have one view of the world – design would fail to reach people because they don't understand people.	J states that one of the worst things a designer could do is have a fixed mindset or only one view of the world – the design would fail to reach people because the designer needs to understand people.
193-207/ … who is at … and she did a lot of behavioral stuff from a business perspective and she came up with two kind of mindsets the fixed and the learning mind set and she believes in business we value the fixed mindset over the learning mindset and the fixed mindset is ruled by fear of failure its about setting up rules and following them its about jumping through the right hoop and that's kind of what the education system and when it comes to creativity and originality we kind of beat it out of people and a fixed mindset is great for perpetuating the status quo and for making a system work well and then there is the learning mindset and the learning mindset has the motivation of perhaps menace and learning and you see that more in entrepreneurs who haven't been to university and have left with there creativity intact and the learning mindset is also important and that is at the core of the process, embrace ambiguity, take off expert hat, be curious, be ok with the fact that you do not even no what the problem is let alone the answer.	J draws in research from a business perspective on fixed and learning mindsets. She quotes from the research to illustrate the two mindsets; "…the fixed mindset is ruled by fear of failure its about setting up rules and following them" Advantages of that mindset is that it is great for perpetuating the status quo and making a system work well. She then contrasts that with the learning mindset "…the learning mindset is also important and that is at the core of the process, embrace ambiguity, take off expert hat, be curious, be ok with the fact that you do not even no what the problem is let alone the answer.
207-211/ The fixed mindset and things that go with that are really important but if you want newness and you want to innovate you cant do that within the fixed mindset cause when you look back you only have risk as your guide so if you want newness you need to inject some of this learning mindset and there is kind of a instinct.	J points out the importance of both of these mindsets, but emphasizes the importance of the learning mindset over the fixed mindset if you what to innovate, if you want newness. She speaks of a kind of instinct, earlier on she used the example of an entrepreneur, who have not been through trainings in fixed mindset, she uses the example of not participating in higher education, and because of this they have their creativity intact, so therefore have a higher tolerance for ambiguity
211-217/ Most people usually have one or the other but you can learn from each others skill set but most people have an orientation for one or the other people who do really well in lots of companies and also in government have that very good at working within the system so that is part of their skill set and that not so say that that is not needed because it definitely is so that's the kind of, the battery hens and then there is the feral goats who crave new and who crave novelty.	J believes that most people have an orientation for one mindset over the other, often people are situated in a work place, where their particular orientation is most useful or suited
223-228/ People that are in the fixed mindset find it very challenging not to know the outcomes and the people that are attracted to this work are much more naturally feral goat , I think I am more that, to	J places herself in the 'feral goat' category, to her change is exciting, she does not find it threatening, she loves to learn, loves newness. She believes it is important for both mindsets to have empathy

me change is exciting not threatening I love to learn and I love newness and I think we need to have empathy for each other they are not freaks and I am not a freak we have all got great stuff to offer.	toward each other as they both bring value to various situations *"they are not freaks and I am not a freak we have all got great stuff to offer"*
228-233/ I just think that government has up weighted the value of the fixed mindset than the learning so I think we have to unlock the creative and learning mindset to get them comfortable with it and really the only way to do it is to do it it is a learning by doing process its like guys you are going to be outside your comfort zone.	Government organisations value the fixed mindset over the open mindset, J sees her job as getting these guys out of their comfort zones, unlocking the creative and learning mindset, get them comfortable with it, in a learning by doing process.
233-237/ Just roll with it for a bit and see what happens and most people just go OMG this is amazing and life changing this is so how we should do it and there are a few people that go this is weird and horrible and I don't like I am going to go back to how I have always been it but most people become infected.	J observes that most people get a lot out of the process, for a few it will never fit but for the ones that it does it can feel like a life changing experience.
237-239/ It is like a virus and for me it is re connecting people with their natural creativity and generosity so a long story short I love ambiguity others hate it but I think it has to be part of the process	Ambiguity is a natural part of the process, for J it feels like a virus, connected people with their natural creativity and generosity.
240-249/ You have to find ways to manage it that's why when you introduce people to this stuff you do basic steps and you do something really small and safe and you go up to the shop and you say to someone hey just wondering what we are going to get at the shops today and you have a very soft egg conversation and then you come back and unpack that come up with the insights and then you come up with something as to why people go up to the shop and you might go out and do and interview with somebody but you will have been coached through baby steps so that you are more and more comfortable with the method.	J feels that guiding people into this process if it is new to them is important. Starting out with small basic steps, and slowly building their experience and knowledge, an incremental process that they extend upon over repeated experiences.