

Northumbria Research Link

Citation: Yee, Joyce and White, Hazel (2016) The Goldilocks Conundrum: The 'Just Right' Conditions for Design to Achieve Impact in Public and Third Sector Projects. International Journal of Design, 10 (1). ISSN 1991-3761

Published by: IJDesign

URL: <http://www.ijdesign.org/ojs/index.php/IJDesign/article/view/2381>
<<http://www.ijdesign.org/ojs/index.php/IJDesign/article/view/2381>>

This version was downloaded from Northumbria Research Link:
<http://nrl.northumbria.ac.uk/id/eprint/26777/>

Northumbria University has developed Northumbria Research Link (NRL) to enable users to access the University's research output. Copyright © and moral rights for items on NRL are retained by the individual author(s) and/or other copyright owners. Single copies of full items can be reproduced, displayed or performed, and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided the authors, title and full bibliographic details are given, as well as a hyperlink and/or URL to the original metadata page. The content must not be changed in any way. Full items must not be sold commercially in any format or medium without formal permission of the copyright holder. The full policy is available online: <http://nrl.northumbria.ac.uk/policies.html>

This document may differ from the final, published version of the research and has been made available online in accordance with publisher policies. To read and/or cite from the published version of the research, please visit the publisher's website (a subscription may be required.)



**Northumbria
University**
NEWCASTLE



University**Library**



The Goldilocks Conundrum: *The 'Just Right' Conditions for Design to Achieve Impact in Public and Third Sector Projects*

Joyce S. R. Yee ^{1,*} and Hazel White ²

¹ Northumbria University, Newcastle upon Tyne, United Kingdom

² Open Change, United Kingdom

What are the most important conditions necessary for a design-led approach to innovation or transformation to flourish in an organization? This paper introduces and discusses three 'just right' conditions for design to achieve the desired impact in the context of public and third sector projects, where *third sector* refers to a broad range of community and volunteer groups. The paper draws on a six-month Arts and Humanities Research Council (AHRC) funded project, aimed at identifying and mapping the impact and value of design in public and third sector organizations. Our research insights are derived from six case studies that were co-created with the project participants of service innovation projects. The case studies were selected based on three criteria: 1) an acknowledged value that design-led approaches have brought to the project; 2) access to a triangulated base of stakeholders: service users, service commissioners and service designers; 3) projects that cover a range of sectors from healthcare, mental well-being, youth services and social care across England, Scotland and Australia. In total eighteen conditions were identified and the ten most important conditions were selected and ranked by the research participants through a workshop validation session. We further clustered these into three overarching themes: *community building*, *capacity*, and *leadership* based on the authors' previous experiences with public service innovation projects. This research suggests that *community building* is valued above *leadership* and *capacity* as the most important condition for design to have the greatest impact in innovation and transformation projects.

Keywords – Conditions for Impact, Design in Public and Third Sector Organizations, Value of Design, Service Design, Transformation, Innovation.

Relevance to Design Practice – As the role of design expands from its traditional role of idea generation, visualization and prototyping to becoming a catalyst for change, we need to understand the conditions required for a design-led approach to innovation and organizational change. Without the 'just right' conditions, this design-led approach will fail to achieve its intended impact.

Citation: Yee, J., & White, H. (2015). The Goldilocks Conundrum: *The 'just right' conditions for design to achieve impact in public and third sector projects*. *International Journal of Design*, 10(1), 7-19.

Introduction

The Goldilocks Conundrum in Social Design and Innovation

'Goldilocks and the Three Bears' is a fairy tale about a girl who breaks into the house of a family of bears. She proceeds to try out the bears' bowls of porridge, chairs and beds. In each instance she finds each item either too hot or too cold (the porridge), too big or too small (the chairs) or too soft or too hard (the beds). Goldilocks was only satisfied when she found the right balance between two extremes for each of the items. Anyone involved in using design-led approaches with organizations either to help them innovate their service, redesign their business strategy or change practices will recognize how hard it is to ensure the right conditions for design to have a sustained impact.

Burns, Cottam, Vanstone, and Winhall (2006) define transformation design as a practice that uses design to facilitate change by building capacity for radical change within both organizations and communities. As the use of design as a transformative agent in organization grows (Kimbrell, 2014), it is all the more important to identify the conditions required for

design to flourish and to turn those conditions into actionable strategies to ensure the reach and impact of design. Despite strong arguments and drivers in favor of innovation in public services (Mulgan & Albury, 2003; Albury, 2005; Design Commission, 2013) there remains a knowledge gap as to how this can be achieved effectively. Tidd, Bessant, and Pavitt (2011) and Hartley (2005) and Lekhi (2007) suggest that innovation in the public sector generally remains a 'fragile and unpredictable process, with a high rate of failure' due to a lack of agreement in defining what innovation means in public services (Greenhalgh, Robert, Bate, Kyriakidou, Macfarlane, & Peacock, 2004). And while there are a significant number of books and research papers that can help us understand the practices and challenges of using design

Received Sept. 4, 2015; **Accepted** Feb. 5, 2016; **Published** April 30, 2016.

Copyright: © 2016 Yee & White. Copyright for this article is retained by the authors, with first publication rights granted to the *International Journal of Design*. All journal content, except where otherwise noted, is licensed under a *Creative Commons Attribution-NonCommercial-NoDerivs 2.5 License*. By virtue of their appearance in this open-access journal, articles are free to use, with proper attribution, in educational and other non-commercial settings.

***Corresponding Author:** joyce.yee@northumbria.ac.uk.

in the public sector (for example Burns et al, 2006; Sangiorgi, 2009, 2011; Kimbell, 2014) there is still limited research looking specifically at identifying conditions required for design to achieve the desired impact, especially within the public and third sector arena.

The research presented in this paper has emerged from a study aimed at identifying the value, impact and conditions for impact of a design-led approach on the organizations. The six case studies are located within public and third sector contexts and range from three short, hour-long workshop interventions to an ongoing six year project. Design has been used for various purposes: as a facilitation tool, as a product and service innovation tool, and a change management tool. This paper presents and discusses the three overarching conditions identified by the research participants and further reflections on which conditions were key to project success.

Using Design for Transformative Purposes

Innovation in the Public Context

Innovation can be viewed as a purposeful and focused effort to achieve change in (an organization's) economic or social potential (Drucker, 1985.). However, the majority of innovation literature is dominated by and focused on achieving economic rather than social potential. For this reason, innovation models are often biased towards the needs and makeup of commercial organizations rather than public ones. It also quite common for studies to draw from the private sector to inform innovations in the public sector (see Ling, 2002 for example). Compared to businesses, public services usually exist within a more complex social system, with goals and values that are more ambiguous and difficult to quantify (Denis, Hebert, Langley, Lozeau, & Trottier, 2002; Lewis & Hartley, 2001; Marsh & Olsen, 1989). Additional barriers such as a risk averse culture, ad-hocism, short-term thinking, performance driven culture and lack of incentives make innovation in public services (Mulgan & Albury, 2003) more difficult to achieve.

Joyce S. R. Yee is a Reader at Northumbria University Design School, UK. Her research is divided into two main strands: one focusing on the impact and value of design in social spaces and the other on the epistemological and methodological implications of research through design. She is the co-founder of the Design for Social Innovation in Asia-Pacific network (DESIAP) with Yoko Akama. She was also instrumental in setting up the biennial conference series Research Through Design (RTD) with Jayne Wallace as an experimental platform for disseminating practice-based design research. She co-authored a book titled *Design Transitions* looking at how design practices are changing. She was also involved in co-editing *The Routledge Companion to Design Research*, featuring 39 original and high quality design research chapters from contributors around the world. Her next book is focused on understanding how organizations are innovating through design.

Hazel White is a researcher and educator in Design for Services. She has experience in enabling knowledge exchange between communities of interest, brought together through networks which include interdisciplinary experts from business and academia, to use their insights and creativity to improve services. She has worked with a number of public and third sector organizations in Scotland through her role as Program Director of the Masters of Design for Services program at the University of Dundee and as Director of Open Change, a partnership that promotes and enables transformation through design: working with government, public and not for profit sectors to enable creativity and design methods to be used to facilitate strategic change.

Organizational Change in the Public Context

Helping organizations to transform has been studied in a number of disciplines such as change management, human resource management and organizational studies. There are also a number of models of organizational change that are widely used, for example Kotter's (1996) eight-stage process and Lewin's (1947) three-step change model of 'unfreezing, moving and refreezing' (p.34). While popular and widely used in commercial organizations, these models have been less useful for non-commercial organizations. Verganti (2009) argues that for successful companies in the private sector—such as Apple—leadership often focuses on a shared vision which creates meaning and purpose for both employees and customers. In contrast, public sector organizations are often led by the need to ensure good governance and accountability. Kotter's eight-stage process stresses the importance of leadership in the change process but this can be challenging for public and voluntary organizations as it is often unclear who has the ultimate responsibility for change (Butler & Wilson, 1990). Lewin's model has been criticized as being too linear, requiring too much control by management and underestimating the impact of changing contexts currently experienced by the public and third sector organizations, especially in the UK (Kellock, Beattie, Livingstone, & Munro, 2001). Additionally, replicating change initiatives across different organizations is difficult and does not transfer easily across organizations due to the diverse circumstances and contexts involved (Buchanan, Claydon, & Doyle, 1999; Martin, Beaumont, & Staines, 1998). Similarly, while a co-production approach—where the services themselves are in part created by the actions of the service users (for example The Citizens Advice Bureau's ROTA project trains prisoners to support other prisoners) may be more suited for the transformation of public and third sector services (Brandsen & Pestoff, 2006), there are doubts as to how effective it can be. While there is a general agreement that the co-production of services is beneficial to the organizations and their users (Boyle & Harris, 2009; Needham & Carr, 2009), there are challenges in trying to effectively deploy co-production processes (Boyle & Harris, 2009) due to tokenistic participation of people and limited opportunity to truly 'co-create' services¹.

Design's Role in Transformation Projects

Applying design in a new context, and specifically in transformation projects, has gained traction and support in the last ten years. A design-led approach (mindset, process and tools) is increasingly seen as a viable approach to bridge the shortcomings of other change models that may be too prescriptive, linear, abstract or non-participative. Design helps 'deliver solutions that are practical and desirable and places the individual at the heart of new solutions, and builds the capacity to innovate into organizations and institutions' (Burns et al., 2006, p.6). The role of design in organizational change has been discussed by Junginger (2006), Burns et al. (2006), Bate and Robert (2008) and Junginger and Sangiorgi (2009). Junginger (2006) suggested a link between human-centered design and organizational learning. Burns et al.'s paper (2006) introduces the term 'Transformation Design'

and proceeds to explain through four project examples how user-centered design principles can be used to address complex problems in large-scale systems and services. Bate and Robert's paper (2008) discusses how co-designed user experiences can be used to help improve healthcare through Experience-Based Design (EBD), where it refers to how well the experience is understood by the user, how users feel about it and how it fits their needs when using the service. In EBD, the 'co' in co-design suggests that patients play a more active and significant role as designers of their own services alongside service providers.

There is a wealth of literature from the field of Change Management and Management (for example Armenakis, Harris, & Mossholder, 1993; Weiner, 2009) that discusses organizational readiness for change. Within the design field, research has mainly focused on the characteristics of transformation projects involving design (Burns et al., 2006; Sangiorgi, 2011) and inhibiting factors of design (Bailey, 2012; Warwick, 2015).

Burns et al. (2006, pp. 20-23) listed six characteristics of transformation projects which were: 1) Defining and redesigning the brief; 2) Collaborating between disciplines; 3) Employing participatory design techniques; 4) Building capacity, not dependency; 5) Designing beyond traditional solutions and 6) Creating fundamental change. Bailey's (2012) research looked at the factors affecting how service design methods and practices are embedded within an organization. He found that the conditions necessary to allow innovation to take place within an organization are closely related to conditions for enabling design to be used effectively in the development and delivery of services. He coined the term 'design readiness' to describe an organization's capacity to absorb design thinking and methods. Halvorsen, Hauknes, Miles, and Rannveig's (2005) concept of 'absorptive capability' (p.3) was used by Bailey to evaluate the ability of an organization to assimilate and make use of design approaches. Halvorsen et al's concept was originally related to the transference of technology but was appropriated in Bailey's research to describe how design thinking can be effectively disseminated. Bailey recognizes that while design readiness can be used as an initial measure of awareness and potential to embed design at the start of a project, it has limited value in ensuring that it happens in practice.

In a similar vein, Warwick (2015) identified five inhibitors to the use of Service Design in a Voluntary Community Sector (VCS) context. They are: Capacity to change; Permission to change; Resources available to support change; Type of change, and; Understanding what design can offer. She used these inhibitors to guide the creation of a Service Design Readiness tool used to help VCS organizations assess whether they have the optimum conditions that can maximize Service Design's impact. While Warwick highlights the inhibitors to impact, Sangiorgi (2011) calls for the adoption of practices and principles from organizational development and community action research when aiming to create transformative services. She identifies seven key principles that are common across transformative practices in design, organizational development and community action research with a particular focus on issues of public service reform and wellbeing. These principles are: 1) Active citizens;

2) Intervention at community scale; 3) Building capacities and project partnerships; 4) Redistributing power; 5) Designing infrastructures and enabling platforms; 6) Enhancing imagination and hope; 7) Evaluating success and impact.

Early research has so far aimed at defining the role of design and at 'proving' the value of a design approach for transformative purposes rather than looking at ways to maximize its impact. The next evolutionary step is to look at ways to ensure conditions are 'just right' for design, which we will now focus on in this paper.

Project Context

Research Questions

The paper draws on a six-month Arts and Humanities Research Council (AHRC) funded project, and was aimed at addressing three main research questions:

1. What aspects of a design-led approach are valued?
2. What is the impact of a design-led approach?
3. What are the conditions for impact?

The outcomes from the first two questions were reported in an earlier paper (Yee, White, & Lennon, 2015) and will not be touched on in this paper. Instead, this paper will specifically focus on the third question: describing the conditions for impact identified in the research.

Case Studies Summary

The research insights have been derived from six co-created (Sanders & Stappers, 2008) case studies of service innovation conducted in UK-based public and third sector organizations. The term 'co-created' used in this context refers to how we collectively (researchers and stakeholders) generated ideas and themes from the case studies. The criteria for selecting projects to study were based on the use of design-led approaches in the projects; access to a triangulated base of stakeholders—service users, service commissioners and funders and service designers; and projects that covered a range of sectors including healthcare, mental health promotion, youth services and social care. The projects ranged from three short, hour-long workshop interventions to an ongoing six-year project. A summary of each of the case study is located in Table 1.

Research Approach

The case studies, and the interviews on which they were based, were further analyzed, discussed and extended in a participant workshop. In total, the project team conducted semi-structured interviews with twenty-six participants, including eight designers, six commissioners/funders, ten internal service users and three external service users in Aberdeen, Edinburgh, Newcastle, London and Victoria (Australia). The three Australian based internal service users were interviewed remotely via Skype. We made a distinction between internal service users and external service users because, in many instances, service innovations were more focused on enacting changes for internal staff who

Table 1. Summary of the case studies.

Title	Participants	Location	Duration	Summary
1. The Matter	Snook, Design Council, Edinburgh Young People's Forum	Edinburgh	3 months	<p><i>The Matter</i> is a novel way for young people to tell their organizations, councils and government what they think about problems that matter to them. It helps organizations understand what young people think and feel about problems that affect their communities. <i>The Matter</i> is a newspaper that is run, produced and published entirely by young people. Each edition is their public response to a question asked by the client—in this case a local authority. <i>The Matter</i> was developed in partnership with Snook and Young Scot. The pilot project was supported by Firstport and the City of Edinburgh Council. Various design methods were used by the editorial team to collect user feedback and communicate the results through <i>The Matter</i> newspaper.</p>
2. Wheel of Well-Being	Uscreates, South London and Maudsley NHS Foundation Trust (SLaM)	South-east England	Ongoing (since 2008)	<p><i>The Wheel of Well-Being (WOW)</i> is a mental health promotion initiative that has developed on an ongoing collaboration between Uscreates and SLaM. They collaboratively developed <i>WOW</i> from a brand to a framework and finally to a mental health strategy that consisted of a number of products and services.</p>
3. Patchwork	FutureGov, Municipal Association of Victoria (MAV) and Department of Family and Community Services, New South Wales	Victoria and New South Wales, Australia	Ongoing (since 2014)	<p><i>Patchwork</i> is a web-based platform designed and developed by FutureGov (a design, technology and change management agency) to assist in team collaboration and information sharing around safeguarding children and vulnerable adults. This case study focuses on <i>Patchwork</i>'s implementation across two different organizations and sites, the Municipal Association of Victoria (MAV) and the Department of Family & Community Services, New South Wales (NSW), Australia. A co-design approach was used to develop and customize <i>Patchwork</i> for the different audiences.</p>
4. Better by Design	Taylor Haig (now called Thrive) and Scarf	Aberdeen	2 years	<p><i>Better By Design</i> is a two-year program to support 15 voluntary sector organizations across Scotland using a design-led approach. We focused on a partnership project between Taylor Haig and Scarf, a social enterprise which supports those in fuel poverty and promotes sustainable living across the north-east of Scotland. Design was used to support a change management process in Scarf.</p>
5. Empower Your Mind	Laura Warwick and Tyneside and Northumberland Mind	North-east England	3 months	<p><i>Tyneside and Northumberland Mind</i> is one of a network of 143 independent charities that are part of the Mind network, working in partnership to improve mental health across England and Wales. User insights gained through design research approaches were used to help the organization review and reframe current services. The insights were then used to shape the <i>Empower Your Mind</i> project, which fundamentally altered the relationship between the organization and service user.</p>
6. Visioning Future Care Plans	Open Change and Scottish Government's Quality and Efficiency Support Team (QuEST)	Across Scotland	3 x 3 hour workshops	<p><i>Visioning Future Care Plans</i> is part of a series of interventions presented to a diverse range of stakeholders within NHS Scotland and Social Care organizations in the form of workshops. Part of a larger program, the workshops were organized in response to legal changes aimed at integrating health and social care. This case study centres on a one-hour 'Future Visioning Session', which took place during a series of one-day 'Integrated Care Learning Events' across Scotland in 2013. Design approaches were used to facilitate a creative thinking session involving a wide range of practitioners for joint discussions about improvements, innovation and transformation in Integrated Health and Social Care, with the view to sharing learning and creating future visions to be further developed.</p>

were involved in delivering services rather than external service users. In the interviews participants were asked to describe and comment on their experiences using a guided interview tool that asked them to note down how design was used, how it was valued, and the impact it had across a time frame of ‘before, during and after’ the project officially ended (see Figures 1 and 2). Interview transcripts were then used to create multidimensional case studies that identified the impact and value of design as understood from three complementary perspectives: the design team, the project team and the service users. Participants were asked to identify the key conditions present in their project that enabled them to successfully achieve their intended outcomes. The interview data from the transcripts were also affinity mapped into themes based on the three research questions.

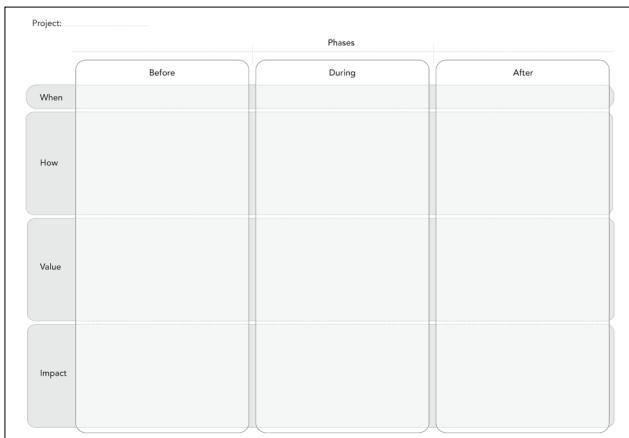


Figure 1. Example of a blank project timeline sheet used in the interview with participants.

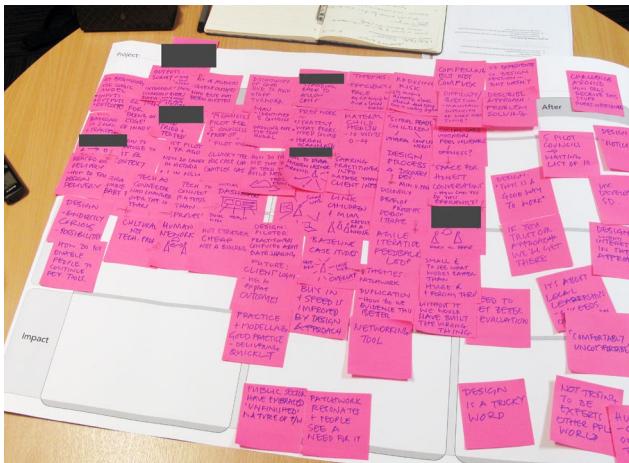


Figure 2. Project timeline filled in during the interview (specific data has been blanked out to ensure project is not identifiable).

In the second phase of the research we conducted a workshop at Northumbria University in Newcastle with a selection of the participating commissioners/funders, designers and service users where we presented the insights gathered from the interviews for discussion, correction and extension. There were eleven participants: four commissioners/funders, six designers and one external service user. Although the workshop included only one

external service user, we were able to ask some of the participants in the workshop to evaluate the research insights from a service user point of view. This was possible due to the fact that many participants had dual roles in the project, for example in the *Better for Design* example (case study 4), the CEO of Scarf (a social enterprise based in Aberdeen) was both the commissioner but also considered himself as an internal service user. We used the data from the workshops to triangulate insights back to the earlier interviews in order test our initial assumptions. The workshop validated and built upon the findings and extended both the understanding of the research team, and enabled the participants to share additional insights. Participants were presented with a list of conditions for impact and asked to rank the top five conditions that they feel are most important and relevant for their context. They were also asked to annotate the conditions to qualify their choice and to add further comments to the conditions. An initial eleven conditions were selected from the original list of eighteen, and then finalized to ten, with the merging of two conditions into one based on feedback from the participants. We initially placed the ten conditions on a framework that differentiated between values, actions and outcomes (see Figure 3). Further reflections based on two previous projects derived from our own practices working with public sector organizations have led us to identify affinity and commonality between the initial ten conditions. To conceptualize this further, we have clustered these into three overarching themes: *community building*, *capacity* and *leadership* to help discuss the conditions in a more coherent manner (see Figure 4).

Conditions for Impact

This section will present and discuss in detail the three conditions for impact, which are co-dependant.

Condition 1: Community Building

Build and Maintain Trust

Building strong and successful relationships based on trust was by far the most important condition for impact. All stakeholders—commissioners, designers and users—were equally convinced of its importance. The importance of building trust has been highlighted by Warwick in her study of using service design with the voluntary community sector (2015). The term ‘critical friend’ borrowed from educational literature (Costa & Kallick, 1993, p.50) is used by Warwick to describe the type of relationship required to challenge established perspectives and support the first stage of organizational transformation. It builds on the ‘provocateur’ role identified by Tan (2012) in her doctoral study on the roles of designers in social design projects. The provocateur role can only be successful if trust is present in the first place. Warwick extend Tan’s research by suggesting in her *critical friend* model (2015) that building trust will give permission to the designer to act as a ‘provocateur’ by challenging existing assumptions and offering alternative visions (Baskerville & Goldblatt, 2009). Warwick argues that if a designer can establish trust and an embedded



Figure 3. Initial mapping conditions for impact against categories of values, actions and outcomes. Although some conditions can be placed in all three categories, we have mapped each condition based on the context described by the participants.



Figure 4. Grouping the ten conditions into three overarching themes.

position in the organization, they are able to increase the reach and impact of their work. The relationships between the project teams that closely reflected this high level of trust were evident in longer-term cases studies used for this research such as the *Better By Design* and the *Wheel of Well-Being* projects. For example the term ‘critical friend’ was coincidentally used by Scarf’s CEO (Billy Sloan) to describe the role of the *Better by Design*² program.

We saw Better by Design as our critical friend, someone who we know is supportive but who is going to say—What are you doing? What have you done about that? How are you taking that forward? (B. Sloan, interview, May 14, 2014)

Trust is required to build a shared understanding between those involved, and continual communication between the team is necessary to alleviate the anxiety many clients have in engaging with a new approach. This is part of the relationship building process and it is important that the organization be willing and committed to the project from start to end. It was important that the organization not only trusted the process but also the designer, as reflected by Laura Warwick in her work with Tyneside and Northumberland Mind in case study 5:

Tyneside and Northumberland Mind was willing to engage in the process. They trusted they would get something out of it and invested time and resource in the project. There was a real alignment in what they needed and what I offered. (L. Warwick, interview, May 1, 2014)

Trust enabled the team members to recognize each other’s areas of expertise, within a multidisciplinary team. While a design-led approach was the dominant approach used in all the projects, other expertise and tools were brought in when needed. This condition was evident in the *Wheel of Well-Being* project (case study 2) where the specific expertise within the design team and the mental health experts was explicitly valued by each of the team members.

Storytelling

The ability to communicate by telling compelling stories is key to building good relationships with both internal and external audiences. Heapy and McManus (2011) talk about this condition as a way of helping multidisciplinary teams understand and empathize with the users by bringing users’ stories to life. They argue that making user research and user stories highly visible in the organization helps focus the team on a common goal. For the *Patchwork* case study, the importance of a compelling story was important to the Municipal Association of Victoria (MAV) as it helped them convince internal stakeholders to engage and sign up to the system. This view is encapsulated by Joanne Fittock, the Policy Advisor at MAV:

The focus of the project has not necessarily been on the IT, it’s been on what *Patchwork*’s whole ethos is, which is connecting practitioners and how you work around families. So the focus of the training information and promotion is around making it better for families and children. It’s focused on the stories that they tell and the way in which they explain process mapping. The IT sits in the background... (J. Fittock, interview, June 10, 2014)

The role and power of stories was also important in the dissemination of the project and in securing further funding for the project, as recounted by Rochelle Romero from the Department of Family & Community Services, New South Wales:

A short film of service user stories was presented by FutureGov to the Directors. The user stories were a powerful way for the Directors to quickly understand the importance of Patchwork and how it works. (R. Romero, interview, June 13, 2014)

Project Champions

An important condition for transformative practices is treating citizens as ‘agents’ and acknowledging that they play an active role in the creation of well-being (Sangiorgi, 2011). The concept of project champions extends this idea of an active citizen and suggests that for projects to have an impact, champions are needed to push for and advocate the adoption of new practices, tools and approaches. While having support from the top is important (discussed in Condition 2) it is vital to have champions at all levels of the organization. Change is difficult and it is critical that organizational leaders participate in the process—a design-led process is a participatory process, not something that is ‘done-to’ an organization. It requires that the commissioner engage with new ways of thinking and doing to build skills and capacity in their organizations, including ensuring that there is time, space and resources to support projects.

For the *Patchwork* team, it was important to embed the process of finding project champions as the project extended to other departments. Workshops were run to introduce the system to new teams and to recruit project champions that would help lead its implementation. Similarly, to help increase uptake and use of the *Wheel of Well-Being* website, the project team ran a series of workshops to help identify and train project champions. The *Wheel of Well-Being* website was launched in 2014, as a platform to bring together the collection of *WOW* resources and activities, as well as a place for community engagement. As it was a place to coalesce and communicate *WOW*’s activity, it was important to make it visible and find champions of the work being done. Joanna Choukier from Uscreates explains how important it was:

It’s about building a sense of ownership, so our vision is that at the end of the workshop series, participants from all different disciplines and teams would become the champions/ambassadors of the website, and that they would be advocating it. They are going to be a vital part of our engagement strategy. It’s like having a steering group of experts. (J. Choukier, interview, June 6, 2014)

Engage and Build a Community

The importance of engaging and building a community through participation and knowledge transfer in order to generate lasting legacy in transformative practices through design has been discussed by a number of researchers (Sangiorgi, 2011; Bailey, 2012). Although being able to demonstrate value is important (Yee, Jefferies, & Tan, 2014), one-off interventions will not

generate significant results in terms of service improvements (Bauld, Judge, Barnes, Benzeval, & Sullivan, 2005), especially in changing political and socio-economical environments. We are also observing recent initiatives in the change and transformation space, for example the establishment of NHS England Quality Improvement's *School for Healthcare Radicals* and MIT's online course *U.Lab*, that suggest building and nurturing a community is the way to effect positive change. Therefore it is important to find ways to engage stakeholders through other means to help create a culture of participation and involvement that can survive through changing contexts. There have been a number of strategies the project teams from the six case studies have used to create engagement and participation in their projects.

In almost all of the case studies, the designers had to create pilot projects to prove the value of using a design-led approach. *The Matter* project (case study 1) was created for that specific reason and used to prototype a new service. Subsequent other 'Matters' have now been run with different councils in Scotland using the same process. Similarly, the *Patchwork* project had been developed and tested a number of times before it was implemented at the two sites in Australia. The commissioners specifically highlighted the importance of having evidence of previous implementation and demonstration of effectiveness, especially when making a case for funding.

Language is crucial—the design team must 'speak the language' of the client community. Dominic Campbell of FutureGov talks about using the 'right' language for different audiences, for example positioning a project through the lens of 'policy' when speaking to a transformation team and pragmatically focusing on immediate benefits when speaking with a front-line practitioner. Dominic's previous work in local government gave him credibility through his understanding of the issues and challenges of the sector.

Finally, one of the most effective ways to engage a community is to get them to experience the work by *doing*. All the projects had elements of knowledge transfer and training in their activity. This may involve formal training sessions or workshop sessions where the stakeholders are taken through the design process and asked to prototype services themselves. This strategy is linked with Condition 2: Capacity.

A Multi-disciplinary Approach

The term 'design' has always been a contested area (Nussbaum, 2011), and a number of perspectives, methods, tools and techniques used in the six projects we looked at were not exclusive to design but cross-disciplinary: from management, sociology, ethnography, marketing and human-computer interaction. This mixed methods approach comes from a very pragmatic and open approach to adapting and using what is useful in that particular context. It is clear from participant interviews that bringing conventional design and multi-disciplinary methods together under the banner of a 'design-led approach' fostered a spirit of creativity and enabled people to work in new ways. We asked in a follow-up

workshop what other approaches participants had previously used: these ranged from a 'portfolio approach' to LEAN³ and AGILE⁴ methodologies (in software development processes), The Pacific Institute⁵, PRINCE2⁶, and NLP⁷ methodologies. Others described their previous approaches as 'reactive' and 'not user-centred'.

In a number of cases, participants adapted tools and methods for their own purposes, rather than following a prescribed process—giving them confidence that they could continue using a design-led approach after the projects finished. This ability to adapt to local needs (Heapy & McManus, 2011) helps tailor the approach to specific requirements, skills and team dynamics. It is also important that the project team be comfortable enough to adapt tools to their requirements. A clear evidence of this happening is when the approaches are used beyond the project period. For example, Tim Packer from the City of Edinburgh Council (one of the *Matter* project partners) has changed his communication approach (in reports or presentations) and is being much more visual through the use of infographics after experiencing the value of visualization through the project. Kathleen McGuire from NHS Ayrshire and Arran Health Board has used the techniques learned in the *Visioning Future Care Plans* workshop (case study 6) with her own team. She is also considering adopting a design-led approach for the integration of health and social care models in her health board.

Condition 2: Capacity

Build Capacity and Skills

Changes in practices do not occur without building the capability to change across the organization. Some authors have noted the importance of having certain capabilities in leaders to lead the change (Antonacopoulou & Fitzgerald, 1996), while others have drawn attention to the importance of change agents and the role of Human Resources to build the competencies of change in staff (Ulrich, Brockbank, Yeung, Lake, & Dale, 1995). Hence it is important to ensure that learning opportunities are built into projects aimed at enacting long-term change in an organization. It is as important to build in 'learning capability' to develop a mindset receptive to change, as it is to build practical skills in being able to deploy tools. Halvorsen et al. (2005, p.1) advocates the importance of creating teaching and learning opportunities in parallel with business practices to ensure that design thinking and methods are more effectively disseminated throughout the organization.

In order to ensure that the transformative changes are maintained beyond the project duration, the participants acknowledge how important it was to build capacity and skills in the project team. In the six case studies, a range of methods used in design (and other disciplines) were introduced, used and adopted, including user-research methods: observations, personas, empathy mapping, customer journey mapping, future visioning, idea generation, visualization and service blueprinting. In many cases the methods were introduced by the designers but

implemented by the service providers or service users giving them the skills and knowledge to use them independently in the future. The Service Design agency Snook understood this as a key condition for post-project impact as well as a key aim of the project. As a result, they trained the editorial team (recruited from a local youth group) in areas of user research, editorial design and journalistic writing to ensure they had the skills to work independently to produce *The Matter* newspaper. This knowledge transfer has been so successful in the pilot project that it gave the editorial team the confidence to create two further unofficial editions of *The Matter* after the project ended. Similarly, the *Better by Design* program was explicitly set up with a capacity building aim and the process has been designed in a way that supports organizations to enact the changes they have identified, as Karen Lyttle, from Taylor Haig expresses:

The good thing about *Better by Design* is that it is aimed at getting the organizations to explore different ways of doing things for themselves. It might not mean that they will never need a service designer again, but it does ensure there is some longevity in the process.

This capacity building occurred in a more organic manner in the *Wheel of Well-Being* project. Throughout their six-year relationship, the project team from South London and Maudsley NHS Foundation Trust (SLaM) built a strong and enduring relationship with design agency Uscreates. Collaboratively, they have developed new products and services, and also developed flexible business models to ensure the sustainability of the *Wheel of Well-Being* brand and framework. SLaM created new funding streams to enable them to work with Uscreates on a number of different levels: as project partners, on a ‘pay as you go’ model and on an ‘advice only’ level. This has been made possible by building a relationship of trust through proven effective delivery on projects, and by SLaM raising revenue through delivering training to other organizations on what they have learned from Uscreates.

Receptiveness to Change

This condition is linked to Condition 1: Community Building. By building a good working relationship with the clients, designers were able to create an atmosphere of openness to encourage a culture of ideas rather than a culture of risk management. Warwick, Young, and Lievesley (2014) talk about this condition as an organization’s receptivity and capacity to change. In their study of three voluntary sector organizations, they found different attitudes to change. One organization had recently gone through a round of restructuring, meaning there was less appetite for change, while the other two organizations were more receptive to change due to a culture and leadership open to new approaches.

This culture of openness and being comfortable with transformation was not always present at the start of our six case studies. Stakeholders in all cases recognized the importance of creating a culture of openness to achieve their project aim but they realistically acknowledged that fostering this condition requires

time. For the *Wheel of Well-Being* project the culture of openness and willingness to experiment was built up over a number of projects over time. This was achieved by demonstrating the value of a design-led approach and building trust in both people and the process. In the case of Scarf (the Aberdeen-based social enterprise in case study 4), they already had an appetite for change, with the arrival of the new CEO. Organizations entered a competitive process to join the *Better by Design* program, indicating that they were receptive to change.

However, if managers do not lead by example, the change efforts will be undermined (Kotter, 1996). Fostering a culture of openness has to come from the individuals involved in the project and being able to work with a commissioner or team leader who has an open attitude is important, as some of these quotes show:

We were trying to have a fairly open expectation and wanted to just listen to what Snook proposed at the start. (T. Packer, City of Edinburgh Council, interview, May 16, 2014)

I’m more open to trying out different ways of looking at things. I think it is based on my personality type; I love to try something new and to see how it works. (K. McGuire, Long Term Conditions and Community Ward Manager, NHS Ayrshire and Arran Health Board, interview, July 17, 2014).

Acknowledge and Value Expertise

A project team involved in service and organizational innovation tends to be made up of individuals from different disciplinary backgrounds with different expertise. Being able to form successful collaborations through building trust (Condition 1) and the ability to acknowledge expertise in the team is vital. Yee et al. (2014) discuss how important it is for designers to learn how to work with and leverage the expertise of other professionals. More often than not a project team consists of multi-disciplinary experts—learning when to listen and accept advice and when to offer expertise is crucial to the project’s success. Equally, commissioners and service users in the project team have to be brought on board to understand and recognize the value of design. This is evident in a number of projects in our research. For example, the *Wheel of Well-Being* project team was able to clearly articulate each other’s strengths and areas of knowledge, reflecting a working relationship that acknowledges and recognises diversity of input. Both quotes below illustrate how each team member acknowledges and values expertise.

Anything that’s related to positive psychology, well-being, the expert topic areas, they know that that’s their cup of tea, that’s what they do. Anything that’s related to communications, engagement, design strategies, evaluation, that’s what we do. (J. Choukier, Uscreates, interview, June 6, 2014)

In this situation they [Uscreates] were adding things that we can’t do. So first of all we’re using some of the techniques and actually we recognised that you need to be really visual about some of the things. (T. Coggins, South London and Maudsley NHS Foundation Trust, interview, June 5, 2014).

Condition 3: Leadership

Align Change with Organizational Values

A key lesson learnt by Heapy and McManus (2011) through their work at the service design consultancy, Engine, is that in order for new practices to be adopted, they have to be linked to a clear service vision. Developing a vision and strategy is also one of the key steps suggested by both Verganti in (2009) and in Kotter's (1996) definitive eight-step process to effective change in organizations. The process of creating a vision is critical and will take time and collaborative effort to get right. Rather than being reactive, a proactive attitude is needed to help the organization define their values and goals. In the case of Tyneside and Northumberland Mind (in case study 5), the organization had to respond to long-term funding cuts in the sector and needed to rationalize their services and increase their income. Rather than continuously chasing funding, they used the work with the service designer to help them identify their strengths and gaps in their service provision. This helped them clarify their values and gave them the confidence to promote their expertise, as expressed by Helene Turner, their Funding and Contracts Manager:

We learnt that you must stay very true to your values; you mustn't bend those just so that you can get a fast buck. We must go out there and promote what you're really very good at, what you do best of all. (H. Turner, interview, May 15, 2014).

Understanding who their users are and what their needs are helped Tyneside and Northumberland Mind align their organizational aims with current social and economic drivers in the voluntary sector. It resulted in a successful targeted large funding bid. Similarly, a lot of the early work done with Scarf was to help them clarify their thinking around their customers' journey and realign their strategy to focus on designing *with* the customer. This clear vision has since been used to help them review their current offering and to redesign the way they currently deliver services.

Leadership and Resources

Research has shown that the leadership structure and style can help produce results that can encourage creativity and innovation. A management style that is collaborative, rather than heroic and authoritarian, will often encourage more innovative responses (Askenas, Ulrich, Jick, & Kerr, 2002). It is not surprising that if the leadership structure and mindset are not receptive to change then this would be a major barrier to innovation. Hence a lack of support from the leadership team is often cited as one of the key barriers affecting innovations in public services (Halvorsen et al, 2005; Mulgan & Albury, 2003). Although having project champions is an important condition for success (discussed earlier in Condition 2), it is equally important to have strong leadership in change-management projects where commitment to the original aim and outcomes will require a significant resource (human, finance and cultural) investment. This insight is supported by Heapy and McManus's practice experience (2011) and one of

the key lessons learnt was the importance of buy-in from the executive team in advocating and supporting change. They argue that if leaders are able to articulate the need for change and enact it in their practice, others will follow suit. Furthermore if leaders themselves are able to value creativity and are enthusiastic about change, then it becomes easier for others to adapt to changes ahead (Agbor, 2008). For example, Richard Hewitt from Taylor Haig talks about the importance of having a leader who understands and trusts the design process to enable it to be cascaded to other levels. Kirsty Elderton, who oversaw the implementation of the *Patchwork* system in Australia noted how instrumental the local leadership (within the larger municipal council) was in bringing together different agencies involved in safeguarding vulnerable children and adults.

Leadership support also gives access to resources. The initial investment of time and money has to be established from the start, but equally important is the commitment of resources during and after the project is completed is crucial to ensure project legacy (Warwick, 2015). For example, the ability to mobilize people and resources was important in helping Helene Turner, Tyneside and Northumberland Mind's Funding and Contracts Manager bring together a team for the *Empower Your Mind* project.

Discussions

Research has shown that organizations that had members who held values congruent with the prescribed changes were able to successfully engage in the transition process (Amis, Slack, & Hinnings, 2002). Put simply, people will support what they help to create. For this reason it is important to highlight and discuss the values that are conducive to enabling *community building, capacity and leadership* to help achieve the intended impact.

An Open Culture

Having a culture of openness is an important indicator of an organization's receptivity to change. That's not to say that the culture cannot be nurtured, but if the key team involved are not receptive to change, new practices are unlikely to gain traction in the longer term. Having an open culture is a crucial component in building and maintaining a trusting relationship, initially. This relationship has to be built up between the initial project team members (sometimes called the change team), but it then becomes important to build an open and trusting relationship with other teams in the organization. In so doing, this new community will support and engage with the changes. There are many ways of doing this. Often it is the personal relationships that keep a community together and the shared experiences that help the community create a strong identity. Compelling stories of users and stakeholders are often used as focal point to rally a team behind a specific challenge. By turning these stories into business assets, it not only helps the organization address specific user needs but also provides a sense of agency and accountability to the individuals in the team.

A Learning Organization

A learning organization is one that is constantly reflecting and sharing to help it learn from its actions; this is fundamental to maintaining business relevance and making progress. Learning happens in a number of ways. One way is to continuously build capacity and skills in different areas—for organizations looking to innovate through design, it is important to build design capability internally. Common across our case studies was the practice of bringing in external trainers and facilitators, then gradually developing an ‘in-house’ training program.

Ownership and Commitment

As beautifully illustrated by the NASA janitor’s reply to President Kennedy’s query as to what he was doing —‘I’m helping put a man on the moon’—ownership and commitment need to be in place throughout the organization. A stable leadership which embodies the organization’s values and project champions at all levels demonstrates support for the process and advocates the outcomes, increasing both reach and impact.

Conclusion

How much is ‘just right’?

Goldilocks was looking for the right balance between extremes. The ‘just-right’ conditions for a design-led approach to innovation in the public and third sector are a little more complex. Leadership (Agbor, 2008; Gill, 2003; Kotter, 1996; Tichy 1997; Verganti, 2009) and capacity building for change (Conner, 1999; Ulrich, Losey, & Lake, 1997) are equally valued and rated highly in other disciplines and approaches to innovation and transformation. However what this research suggests is that above leadership and capacity, ‘community building’ is valued as the most important condition for innovation and change projects in the public and third sectors. Putting people, the commissioners, service providers, and users at the heart of the process has led to the greatest impact. In contrast to design-led approaches in business, where strong leadership can propel a design-led vision forward, in the public and third sector, a bottom up approach, through the creation of communities, is what enables a design-led approach to have the greatest impact.

Endnote

1. Here we take co-production and co-creation in relation to public services to refer to a similar concept—a review done on 122 academic records by Voorberg, Bekkers and Tummers (2013) found that both co-creation and co-production in social innovation are to a large extent similarly defined. Both definitions involve the active involvement of citizens in public service delivery by creating sustainable partnerships with citizens. Their review reveals three types of involvement: 1) citizens as co-implementer of public policy, 2) citizens as co-designer and 3) citizens as co-initiator. The first level is represented the most frequently.

2. *Better By Design* is a two-year program aimed at supporting 15 voluntary sector organizations across Scotland by using a design-led approach. One of the case study used for this research (involving the Aberdeen based fuel charity Scarf and Taylor Haig) has been funded through this program.
3. LEAN (short for Lean manufacturing or lean production) is a systematic method derived originally from the Toyota Production System to eliminate waste within a manufacturing system.
4. Agile methodology is normally used in software development as an alternative to traditional sequential product development. It enables teams to respond quickly to unpredictable factors through incremental, iterative work cycles, known as sprints.
5. The Pacific Institute® uses cognitive psychology principles to help individuals and organizations unlock their potential, and enabling organizations to transform their culture and improve business results.
6. PRINCE2 (an acronym for PRojects IN Controlled Environments) is a commonly used project management methodology based on seven principles, themes and processes. It is extensively used by the UK Government as well as being popular in the private sector, both in the UK and internationally.
7. NLP (an acronym for Neuro-linguistic programming) is an approach to communication, personal development, and psychotherapy created by Richard Bandler and John Grinder in the United States in the 1970s.

Acknowledgements

We would like to thank all the participants for their contributions to the research. Their contributions have helped shaped our insights and conclusions. The project was funded by the Arts and Humanities Research Council (AHRC) supported by Northumbria University and Dundee University.

References

1. Agbor, E. (2008). Creativity and innovation: The leadership dynamics. *Journal of Strategic Leadership*, 1(1), 39-45.
2. Armenakis, A.A., Harris, S.G., & Mossholder, K.W. (1993). Creating readiness for organizational change. *Human Relations*, 46, 681-703.
3. Amis, J., Slack, T., & Hinnings, C. R. (2002). Values and organizational change. *The Journal of Applied Behavioral Science*, 38(4), 436-465.
4. Antonacopoulou, E., & Fitzgerald, L. (1996). Reframing competency in management development. *Human Resource Management Journal*, 6(1), 27-50.
5. Askenas, R., Ulrich, D., Jick, T., & Kerr, S. (2002). *The boundaryless organization: Breaking the chains of organizational structure*. San Francisco, CA: Jossey-Bass.

6. Bailey, S. (2012). Embedding service design: The long and the short of it. In *Proceedings of the 3rd Nordic Conference on Service Design and Service Innovation* (pp. 1-11). Espoo, Helsinki: Laurea University of Applied Sciences.
7. Bate, P., & Robert, G. (2008). *Bridging user experience to healthcare improvement: The concepts, methods and practices of experience-based design*. Oxford, UK: Radcliffe Publishing.
8. Baskerville, D., & Goldblatt, H. (2009). Learning to be a critical friend: From professional indifference through challenge to unguarded conversations. *Cambridge Journal of Education*, 39(2), 205-221.
9. Bauld, L., Judge, K., Barnes, M., Benzeval, M., & Sullivan, H. (2005). Promoting social change: The experience of health action zones in England. *Journal of Social Policy*, 34(3), 427-445.
10. Boyle, D., & Harris, M. (2009). *The challenge of co-production*. London, UK: New Economics Foundation.
11. Brandsen, T., & Pestoff, V. (2006). Co-production in the third sector and the delivery of public services. *Public Management Review*, 8(4), 493-501.
12. Buchanan, D., Claydon, T., & Doyle, M. (1999). Organisational development and change: The legacy of the nineties. *Human Resource Management Journal*, 9(2), 20-37.
13. Burns, C., Cottam, H., Vanstone, C., & Winhall, J. (2006). *RED paper 02: Transformation design*. London, UK: Design Council.
14. Butler, R. J., & Wilson, D. C. (1990). *Managing voluntary and non-profit organisations*. London, UK: Routledge.
15. Costa, A., & Kallick, B. (1993). Through the lens of critical friends. *Educational Leadership*, 51(2), 49-51.
16. Conner, D. (1999). *Leading at the edge of chaos*. New York, NY: Wiley.
17. Denis, J. L., Hebert, Y., Langley, A., Lozeau, D., & Trottier, L. (2002). Explaining diffusion patterns for complex health care innovations. *Health Care Management Review*, 27(3), 60-73.
18. Design Commission (2012). *Restarting Britain 2*. Retrieved October 2, 2014, from <http://www.policyconnect.org.uk/apdig/research/report-restarting-britain-2-design-public-services>
19. Drucker, P. (1985). *Innovation and entrepreneurship: Practices and principles*. New York, NY: Harper and Row.
20. Gill, R. (2003). Change management – or change leadership? *Journal of Change Management*, 3(4), 307-318.
21. Greenhalgh, T., Robert, G., Bate, P., Kyriakidou, O., Macfarlane, J., & Peacock, R. (2004). *How to spread good ideas*. London, UK: NHS SDO.
22. Halvorsen, T., Hauknes, J., Miles, I., & Rannveig, R. (2005). On the differences between public and private sector innovation, *Publin Report No. D9*, Oslo. Retrieved September 21, 2015, from <http://unpan1.un.org/intradoc/groups/public/documents/apcity/unpan046809.pdf>
23. Hartley, J. (2005). Innovation in governance and public services: Past and present. *Public Money and Management*, 25, January, 27-34.
24. Heapy, J., & McManus, J. (2011). 10 Lessons from the propagation of design practice in organisations. *Touchpoint*, 3(2), 68-71.
25. Junginger, S. (2006). *Change in the making: Organizational change through human-centered product development* [Unpublished doctoral thesis]. Carnegie Mellon University, Pittsburgh, PA.
26. Junginger, S., & Sangiorgi, D. (2009). Service design and organizational change: Bridging the gap between rigour and relevance. In *Proceedings of the 3rd IASDR Conference on Design Research* (pp. 4339-4348). Seoul, South Korea: Korean Society of Design Science.
27. Kellock, G., Beattie, R. S., Livingstone, R., & Munro, P. (2001). Change, HRM and the voluntary sector. *Employee Relations*, 23(2), 240-256.
28. Kimbell, L. (2014). *The service innovation handbook*. Amsterdam, the Netherlands: BIS Publishers.
29. Kotter, J. P. (1996). *Leading change*. Boston, MA: Harvard Business School Press.
30. Lekhi, R. (2007). *Public service innovation report*. Manchester, UK: Research Republic LLP.
31. Lewin, K. (1947). Frontiers in group dynamics. In D. Cartwright (Ed.), *Field theory in social science* (pp. 5-41). London, UK: Harper & Row.
32. Lewis, M., & Hartley, J. (2001). Evolving forms of quality management in local government: Lessons from the best value pilot programme. *Policy and Politics*, 29(4), 477-496.
33. Ling, T. (2002). *Innovation: lessons from the private sector: A 'think piece' in support of the invest to save study*. Retrieved September 23, 2015, from https://www.nao.org.uk/wp-content/uploads/2002/11/020350_innovation.pdf.
34. Marsh, J. G. & Olsen, J. P. (1989). *Rediscovering Institutions: The Organizational Basis of Politics*. New York: The Free Press.
35. Martin, G., Beaumont, P., & Staines, H. (1998). Changing corporate culture: Paradoxes and tensions in a local authority. In C. Mabey, D. Skinner, & T. Clark (Eds.), *Experiencing human resource management* (pp. 73-94). London, UK: Sage.
36. Mulgan, G., & Albury, D. (2003). *Innovation in the public sector*. Retrieved August 21, 2015, from http://www.sba.oakland.edu/faculty/mathieson/mis524/resources/readings/innovation/innovation_in_the_public_sector.pdf
37. Needham, C., & Carr, S. (2009). *Co-production: An emerging evidence base for adult social care transformation*. Retrieved September 1, 2015, from <http://www.scie.org.uk/publications/briefings/briefing31/>
38. Nussbaum, B. (2011). Design thinking is a failed experiment. So what's next? *Fast Company Magazine*. Retrieved August 21, 2015, from <http://www.fastcodesign.com/1663558/>
39. O'Sullivan, D., & Dooley, L. (2009). *Applying innovation*. Thousand Oaks, CA: Sage.
40. Sanders, E. B. N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *CoDesign*, 4(1), 5-18.

41. Sangiorgi, D. (2009). Building a framework for Service Design Research. In *Proceedings of the EAD Conference 'Connexity'* (pp.415-420), Aberdeen, UK: University of Aberdeen.
42. Sangiorgi, D. (2011). Transformative services and transformation design. *International Journal of Design*, 5(2), 29-40.
43. Tan, L. (2012). *Understanding the different roles of the designer in design for social good. A study of design methodology in the DOTT 07 (Designs of the time 2007)* (Unpublished doctoral thesis). Newcastle upon Tyne, UK: Northumbria University.
44. Tichy, N. (1997). *The leadership engine: How winning companies build leaders at every level*. New York, NY: Harper Business.
45. Tidd J., Bessant J., & Pavitt, K. (2001). *Managing innovation: Integrating technological, market and organizational change* (2nd Ed.). Chichester, UK: Wiley.
46. Verganti, R. (2009). *Design-driven innovation: Changing the rules of competition by radically innovating what things mean*. Cambridge, MA: MIT Press.
47. Voorberg, W., Bekkers, V. & Tummers, T. (2013). Co-creation and co-production in social innovation: A systematic review and future research agenda. In *Proceedings of the EGPA Conference* (pp. 11-13). Edinburgh, UK: University of Edinburgh.
48. Ulrich, D., Brockbank, D., Yeung, W., Lake, A. K. & Dale, G. (1995). Human Resource Competencies: An Empirical Assessment. *Human Resource Management*, 34(4), 473-496.
49. Ulrich, D., Losey, M. R. & Lake, G. (1997). *Tomorrow's HR management: 48 thought leaders call for change*. New York, NY: John Wiley.
50. Warwick, L., Young, R., & Lievesley, M. (2014). The potential of a design for service approach to transform voluntary community sector organisations. In D. Sangiorgi, D. Hands & E. Murphy (Eds.), *Proceedings of the 4th Conference on Service Design and Service Innovation* (pp. 47-56). Lancaster, UK: Lancaster University.
51. Warwick, L. (2015). *Can design effect transformational change in the voluntary community sector?* (Unpublished doctoral thesis). Northumbria University, Newcastle upon Tyne, UK.
52. Weiner, B. (2009). A theory of organizational readiness for change. *Journal of Implementation Science*, 4(67). doi:10.1186/1748-5908-4-67.
53. Yee, J., Jefferies, E., & Tan, L. (2014). Brave new worlds: Transitions in design practice. In D. Sangiorgi, D. Hands, & E. Murphy (Eds.), *Proceedings of the 4th Conference on Service Design and Service Innovation* (pp. 67-78). Lancaster, UK: Lancaster University.
54. Yee, J., White, H., & Lennon, L. (2015). Valuing design in public and third sector organisations. In L. Valentine, B. Borja de Mozota & J. Nelson (Eds.), *Proceedings of the 11th Conference of European Academy of Design, "The Value of Design Research"* (pp. 1-16). Boulogne Billancourt, France: University Paris Descartes.