Policy Design and Practice

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/rpdp20

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**To cite this article:** Emma Blomkamp (2022) Systemic design practice for participatory policymaking, Policy Design and Practice, 5:1, 12-31, DOI: 10.1080/25741292.2021.1887576

**To link to this article:** https://doi.org/10.1080/25741292.2021.1887576

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POLICY DESIGN AND PRACTICE
2022, VOL. 5, NO. 1, 12–31
https://doi.org/10.1080/25741292.2021.1887576

ARTICLE

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# Systemic design practice for participatory policymaking

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**ABSTRACT**

As the complexity of policy problems is increasingly recognized, and participatory approaches gain popularity, policy workers are applying different methods to engage a wide range of stakeholders and citizens in policy development and implementation. Alongside burgeoning interest in various forms of design and systems thinking, *systemic design* has emerged as a descriptor for a practice that integrates dialogue, design and co-creation for sensemaking and decision-making. As an approach to participatory policymaking, systemic design involves creating the conditions for stakeholders to more meaningfully participate in building shared knowledge and taking collective action. This article puts forth a new practice framework for systemic design in public policy and social innovation. It distills insights from the author's experience and knowledge as a researcher, evaluator, practitioner and educator in the design and delivery of public policy and human services. The five core domains of the practice framework—principles, place, people, process and practice—are based on established understandings of design-led, systems-informed and participatory approaches to policymaking, as well as knowledge from critical practice reflections, recent research and evaluation reports. The relevance of the practice framework is illustrated through a case study of a design-led approach to a community services policy in New Zealand. Examples from the case study demonstrate some of the benefits and challenges of systemic innovation and participatory policy design.

**ARTICLE HISTORY**
Received 15 July 2020
Accepted 4 February 2021

**KEYWORDS**
Policy design; design thinking; systems thinking; co-creation; policy practice; participatory design

## Introduction

Government departments and policy workers around the world are adopting the processes, principles and tools of systems thinking, human-centred design and co-design. These approaches reflect the participatory turn in public policy and human services, recently described as a "new paradigm" of public administration (Torfing, Sørensen, and Røiseland 2019) and a "zeitgeist" in the context of health systems (Palmer et al. 2019). The spread of public sector innovation labs both reflects and contributes to the popularity of "designerly" methods, which emphasize empathy and creativity

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alongside abductive forms of reasoning (McGann, Wells, and Blomkamp 2021, 2). A recognition of contemporary planetary crises and complexity, notably the interconnected nature of "wicked problems" (Buchanan 1992), also sees systems thinking brought to bear on policy issues. This is exemplified in transition design, which extends the skillsets and methods of service design and social innovation to a longer-term horizon and transdisciplinary practice that advocates societal transition toward more sustainable futures (Irwin 2015).

There is great variance in the terms and techniques being used, causing confusion among scholars and practitioners alike (Blomkamp 2018; Jones 2014; Haynes et al. 2020). Over the past decade, *systemic design* has emerged as a useful descriptor for a practice that integrates design thinking and systems practice. While the term is not widely used or understood, systemic design can be defined as "a design-led practice that integrates dialogue in co-creation for sensemaking and decision making" (Jones 2018, 45). It may also be called systems (oriented) design, systems-led design, systems-aware co-design, design for complexity or system(s/ic) innovation.

The participatory approach of systems and design practices holds much promise for policymaking, yet there are significant challenges to embedding these methods in public sector organizations. The logic and application of collaborative and design-led modes of policymaking challenge traditional governmental relationships based on "power, control and expertise" (Durose and Richardson 2016, 35). They represent a departure from the classical view of the public sector as "the sole provider of public goods" (Torfing, Sørensen, and Røiseland 2019) as well as from siloed performance-based systems with narrow targets based on New Public Management (Tonurist et al. 2020). Research and evaluation specifically on (human-centred) design for policymaking (Bason 2014, 2017; Kimbell and Bailey 2017; Lewis, McGann, and Blomkamp 2020) and systems thinking for policy (Ryan and Leung 2014; Bijl-Brouwer and Malcolm 2016; Haynes et al. 2020) is beginning to emerge. In-depth case studies of design-led policy practice are rare but much in demand.

This article offers both a case study and practice framework to bridge the gaps in the theory and practice of systemic design and contemporary participatory policymaking. It aims to provide useful knowledge, especially to support practitioners interested in the application, limitations and potential of creative and participatory methods to improve public policy. Jones's (2018) framework for co-creation practice in systemic design is informed by practical case studies and contains relevant considerations for, and observations of, problems in systemic design practice. Yet it remains scientific in orientation and practitioners may find it difficult to understand and apply. By practitioners, I mean people responsible for developing public policy, including public servants, elected decision makers, and contractors or consultants. This article will help bridge the significant "gap between the theoretical knowledge embodied in systems thinking, the historical knowledge of how actual [policy] systems have changed in the past and the practical knowledge needed to make systems change happen in the real world" (Leadbeater and Winhall 2020, 47).

The "5 Ps" practice framework for systemic design in public administration and social innovation offers an accessible, flexible, comprehensive and contemporary approach. Recognizing that systemic design is an emerging, pluralistic practice, it

would be inappropriate to propose a fixed methodology (Sevaldson and Jones 2019; Bijl-Brouwer and Malcolm 2020). Instead, the framework offers broad guidelines to accommodate transdisciplinary practice in diverse contexts. Inspired by practice frameworks in social work and human services, it "integrates empirical research, practice theories, ethical principles and experiential knowledge in a compact and convenient format that helps practitioners to use the knowledge and principles to inform their everyday work" (Connolly and Healy 2009). The aim is to build common understanding and improve the capability of professionals and organizations to implement systemic design practice and effectively cooperate and collaborate in complex engagement situations (Jones 2018). The five core domains of this practice framework—principles, place, process, people and practice—are based on established understandings of design-led, systems-informed and participatory approaches to policymaking, as well as knowledge from critical practice reflections and previously unpublished research and evaluation reports.

## Methodology: a practice-based approach to participatory policy design

This research approach and outputs are similar to those of Bijl-Brouwer and Malcolm (2020) who present principles derived from case studies of systemic design in public and social innovation. As well as initially focusing on design-led practice, our principles are similar, except Bijl-Brouwer and Malcolm (2020) draw more extensively on living systems literature, while power is explicitly considered in the "5 Ps" framework. This article presents a more comprehensive framework to understand systemic design in practice in the public sector, emphasizing context and the roles and capabilities of key individuals.

The relevance of the practice framework is illustrated through a case study of community services policymaking in New Zealand, which demonstrates some of the benefits and challenges of participatory policy design. Examples from the case study suggest a growing appetite for the principles and practice of systemic design within this organization. It offers a clear and comprehensive example of a design-led policy process, with the outputs generated since adopted as official public policy, as well as an increasing appreciation of "designerly" ways of working in government. It is a unique example of design-led practice within the social policy branch of a large government organization, rather than within a public innovation lab, which has been the focus of much recent literature on design-for-policy (Lewis, McGann, and Blomkamp 2020).

The community services policy project was led by a government organization in New Zealand from 2016 to 2018 to address its prior lack of consistency in providing and supporting community facilities. The project resulted in a policy framework designed to guide strategic and operational decision-making and improve organizational practice, notably in terms of community relationships and facility management. Although the policy project was not explicitly described as "systemic design," like the case studies of Bijl-Brouwer and Malcolm (2020, 403), a key feature was its experimental *design-led* methodology. The project team trialed methods not previously used in their organization for designing policy in collaboration with internal and external stakeholders. Examples from the case study effectively represent systemic

design as a practice that integrates dialogue, design and co-creation for sensemaking and decision-making (Jones 2018, 45).

The case study formed part of academic research on efforts to build and spread human-centred design capability among public sector workers in Australia and New Zealand. Between September 2017 and June 2018, the author collected documents and conducted interviews (in person and by phone), and spent ten days on site at the government organization. I conducted a total of 17 semi-structured interviews with all team members described in the "People" section below. Each interview took between 20 and 90 minutes, was digitally recorded, then transcribed in full. The 13 individuals interviewed included the Principal Policy Analyst (lead policy designer—several interviews), two senior managers (project sponsor and authoriser) project team members from different departments and external consultants (design coach and communication designer). I also observed two meetings involving the Principal Policy Analyst and external service providers. Participants gave consent on the condition that the individuals and organizations involved would be deidentified.

The documents, interview transcripts and observation notes were analyzed thematically to capture detailed information about policy-related practice (Yanow 1996). This abductive approach recognizes the political and institutional contexts in which policy is made and the multiple forms of knowledge and practice needed to work effectively in this field. The analysis of the case study and creation of the practice framework were informed by my experience and knowledge as a researcher, evaluator, practitioner and educator in the design and delivery of public policy and human services. This includes having led projects for public purpose organizations as a social innovation and strategic design consultant in New Zealand and Australia. Alongside this practical experience, as a research fellow at The University of Melbourne, I have conducted academic research on design-for-policy and public sector innovation, building on earlier research in cultural policy, local governance, community wellbeing and outcome evaluation. This experience of connecting different forms of policy-relevant knowledge (Tenbensel 2006) has enabled me to develop a practice framework for systemic design that bridges theoretical knowledge, practice-based evidence and ethical principles.

The "5 Ps" framework incorporates systems thinking, human-centred design and participatory design theories and practices to articulate what needs to be taken into account when tackling complex problems and designing for social change. This practice framework explicitly brings a systems lens to build on previous work, notably recognizing the importance of people and place in addition to the key features of co-design as principles, process and practical tools (Blomkamp 2018). Early sharing and testing of the "5 Ps" framework suggests it could be a useful point of reference for planning and commissioning systemic design work, teaching and practice reflection, as well as evaluating process and impact. The framework has been iterated and represented as the Systemic Design Practice Wheel (see Figure 1) following application and feedback by workshop participants with varying experience in systemic design (Blomkamp 2020a). RSD9 workshop participants considered it most useful as a structured planning or reflective tool for intermediate and experienced practitioners, rather than as a teaching framework for introducing people to systemic design.

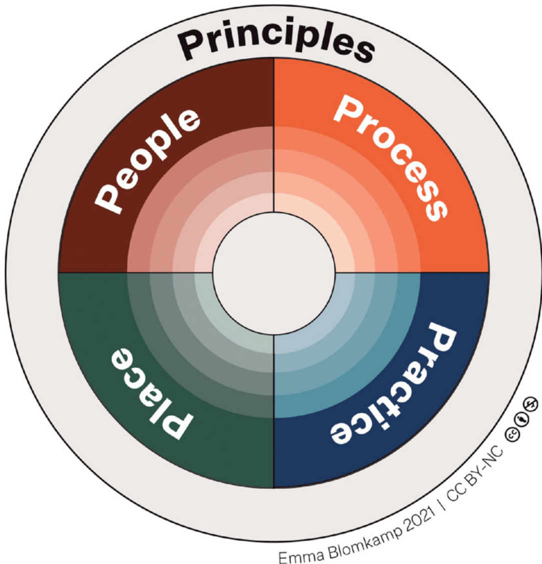


Figure 1. The Systemic Design Practice Wheel.

## A systemic design practice framework for policymaking

The Systemic Design Practice Wheel has five core domains: principles, place, process, people and practice (see Figure 1). As a framework for reflection or planning, key questions for practitioners to consider in relation to each domain are:

- Principles: ***Why*** *and how does this work need to happen? What matters most?*
- Place: ***Where*** *does this work sit and fit? Which level are we working at?*
- People: ***Who*** *needs to be involved? What resources and support do they need?*
- Process: ***How*** *will we structure and organize our approach?*
- Practice: ***What*** *specific methods, techniques and tools will enable us to reach our objectives and follow our principles?*

Each of these domains is introduced below, before further details are provided from the case study. The above questions and related guidance can be tailored for different stages of the work—invitation, preparation, navigation and completion—as well as the maturity of the practitioner.

## Principles

The principles are the values and core guidelines that underpin and characterize a systemic design approach. A synthesis of learnings from practice, they can be applied in similar contexts to improve the likelihood of success in future design practice (Bijl-Brouwer and Malcolm 2020). The principles presented below are based on a number of sources, in particular practice-informed principles of co-design (Blomkamp 2018) and systems change (Lankelly Chase 2020; Abercrombie, Harries, and Wharton 2015), analysis of systemic policy design case studies (e.g. Ryan and Leung 2014) and Jones's

(2014) systemic design principles, which "were drawn from the generalization of systems principles applicable to design, and design principles developed as guidelines from systems theory." As Jones (2014, 2018) explains, the principles of systemic design "provide theoretically-sound guidance … for practitioners to enhance engagement and evolve better practices," notably in the context of facilitation at "higher levels of complexity". While my abductive approach to identifying specific principles makes it likely they will apply in various contexts of public policymaking and social innovation, they could also be exchanged or adapted for other sets of principles to suit the place and process of a particular project.

The six core principles of the 5 Ps framework are each presented below, then later described in the context of the community services policy project.

1. **Purpose-driven.** Like other forms of design and innovation, systemic design aims to produce a particular result or change the future. This is akin to the idealization and purpose finding principles (Jones 2014) and the outcomes focus in co-design (Blomkamp 2018). By identifying an ideal state or future vision, the participants in systemic design articulate a common goal and are motivated to act together to achieve a desirable outcome. As Leadbeater and Winhall (2020, 32) put it, "The purpose should provide the point around which people, activities and resources are organized."
2. **Recognizing complexity.** Systemic design is founded on the recognition of complex adaptive systems, which have features such as self-organization, feedback loops and emergence. The mindset and behavior informed by this principle is: "People view themselves as part of an interconnected whole… Everyone wants the system as a whole to work, and knows they cannot control it." (Lankelly Chase 2020). This means acknowledging the dynamism and interconnectedness of activities, relationships and problems with multiple definitions and causes (Jones 2014). Complexity requires us to work together to build understanding of the system(s) we are seeking to influence and to remain open to reframing problems and boundaries as new understandings emerge.
3. **Self-determination**. Taking a rights-based or strengths-based approach is a value of ethical systemic design practitioners. Enshrined in the International Covenant on Civil and Political Rights, and particularly relevant for First Nations, the right to self-determination is essentially the right of people to determine their own destiny. Applied to individuals in co-design, this is often expressed as, "people are the experts in their own lives" or "experts of their experience" (Sanders and Stappers 2014, 30). In systems thinking, self-determination is connected to the self-organizing principle and social systems theories that see all stakeholders as designers of the system (Jones 2014). This aligns with the demands of dialogic design, that we protect the autonomy and authenticity of each participant (Jones 2018).
4. **Equalizing power**. Systemic design aims to reconcile ever-present power relations between individuals and organizations by eliciting and incorporating a variety of perspectives (Jones 2018). As Banathy (1996, 2) puts it, systemic design can help to achieve "truly participative democracy" by enabling people "to take part

in decisions affecting our lives and guide the activities that can enrich the quality of our lives and add value to the systems in which we live." There are two main dimensions to this principle. Firstly, following the democratic tradition of participatory design, equality of voice is actively promoted through creating the conditions for genuine participation. This entails a shift in the role of the lead designer or policy practitioner from "expert" to "enabler" (Ryan and Leung 2014), and "finding ways to give voice to those who may be invisible or weaker in organizational or community power structures" (Luck 2018). Secondly, in recognition of systems behaviors and self-determination, leadership is distributed and decision-making devolved as much as possible (Lankelly Chase 2020; Leadbeater and Winhall 2020; Yunkaporta 2019; Abercrombie, Harries, and Wharton 2015).

5. **Inclusive collaboration**. Systemic design engages diverse worldviews, leverages the expertise of each participant, and enables stakeholder collaboration to create implementable plans and ethical action (Ryan and Leung 2014; Jones 2018). This reflects the foundational cybernetic principle of "requisite variety," which can be applied in systemic design to achieve the optimal selection of diverse stakeholders to participate in dialogue (Jones 2014). In plain language this can be expressed as "getting the whole system in the room" (Jones 2014) or "engage multiple actors" and "do it together" (Abercrombie, Harries, and Wharton 2015). The selection of a variety of participants and strategies for their involvement should take into account the different kinds of knowledge they hold, including lived, professional and specialist expertise (Blomkamp 2018).
6. **Adaptive learning**. Systemic design requires the creation of space, mindsets and mechanisms for collaborative problem-solving and mutual learning. Continuous feedback and a flexible accountability structure are needed to enable ongoing adaptation throughout the design process, from the early phases of problem framing through development to implementation (Jones 2014; van Buuren et al. 2020). Feedback loops are a natural part of systems, and iteration is integral to design practice, but feedback processes may need to be carefully designed and coordinated in order to effectively learn from and adapt to actions and responses in the system.

## Place

Acknowledging the context, constraints and connections of a project or issue helps practitioners and participants to contribute meaningfully. This domain can be understood as "time and place," which "are usually the same word in Aboriginal languages" (Yunkaporta 2019, 66). A systems lens encourages us to consider when and where the work fits in relation to other activities, initiatives, organizations and networks, as well as within broader, interrelated human and ecological systems.

Articulating the scope clearly helps all involved to understand the constraints and boundaries of the work. The pitfalls of drawing a system boundary either too narrowly or too widely are noted by Leadbeater and Winhall (2020, 18), who explain that "a first step is to draw the boundaries of the system in a way which makes system change a viable activity." In a public sector context, particular attention must be paid to the authorizing environment and enabling conditions. As Buuren and coauthors (2020, 15)

articulate, with regard to design-for-policy, "Politics, but also legal principles, the need for accountability and public bureaucracies, not only set specific conditions on processes of co-creation and co-design but also limit the room for creativity."

This dimension of the practice framework could be called "placement" (Jones 2014), in the sense used by Buchanan (1992) in his seminal depiction of four "orders" of design as:

1. Symbolic and visual communications
2. Artifacts and material objects
3. Activities and organized services
4. Complex systems and environments

Whereas conventional design practice focuses on communication (first order), products (second order) or services (third order) in a market context, the increasing demand for systems-informed design occurs within the contexts of large organizations, industry consortia and healthcare systems (Jones 2018). Another way to consider context and scale is with regard to working across the three levels of system change—micro (niche), meso (regime) and macro (landscape)—as articulated by Frank Geels (2005). Each placement, level or order of systemic design requires a different strategy along with "skill and coordination of distinct methods, design practices, collaboration skills, and stakeholder participation" (Jones 2014). These related aspects are explored within the domains of people and practice.

## People

The quality of systemic design depends on various factors related to the people involved. The individuals and roles involved may vary throughout any systemic design approach, depending on the place and process phase (Jones 2018). There are nonetheless some key roles needed for systemic design to be impactful: "entrepreneurs" (and creative designers); "insider-outsiders" (sometimes called social *intrapreneurs*); "convenors" (leaders and facilitators); and "commissioners (and enablers)"; not to mention the "supporting cast" of participants, key stakeholders and predecessors (Leadbeater and Winhall 2020, 40–41). The people domain draws attention to the personal commitment and wellbeing of systemic design practitioners; their roles, strengths, mental models, biases and positionality; and the involvement of and connections between other participants. This domain is all about power, care (for self, team, organization and community) and relationships. The principles of inclusive collaboration, self-determination and equalizing power are particularly important here—as illustrated in the case study analysis below.

## Process

Systemic design practice typically follows an innovation process. This could be based on a design thinking model, such as the "double diamond" (Design Council 2007), systems change framework, branded methods such as MG Taylor, another innovation process framework and/or models of project management such as Lean or Agile. The

**Figure 2.** Overlapping phases in policy design.

concern for context, distributed leadership and adaptive learning in systemic design means there is no universal process that can be applied to every situation. Rather than a stage-based linear process, it can be more helpful to think of overlapping "spaces" of design, which Bason (2017, 80–83) names, "exploring the problem space," "generating alternative scenarios" and "enacting new practices". We adapted this model in a recent policy design project, as shown in Figure 2, with simpler names for the key spaces, summarized as: "understanding," "imagining" and "making" (Blomkamp 2020b). Whichever process model or schema is used, it will offer an overarching organizing strategy with different spaces, phases or stages to navigate, which will also connect with methods for coordinating, documenting and communicating action.

A design-led approach differs from the dominant model of "the policy cycle," also known as the rational-comprehensive model (Bridgman and Davis 1998). In a conventional approach to policymaking, problem identification is conducted through desk research and data analysis. A design-led process focuses on the lived experience of the people involved or affected by an issue, to understand the problem and its context. Taking a systemic approach often means going beyond the initial brief to explore the root causes of an issue, as well as consider different perspectives and the interrelatedness of problems (Bijl-Brouwer and Malcolm 2020, 394), so that the policy developed can effectively intervene in the system. Both design- and systems-led approaches often result in a reframing of the problem before potential options or solutions are explored (Bijl-Brouwer and Malcolm 2016; Ryan and Leung 2014; Jones 2014). In addition to the described differences in models of policymaking, the design process cannot be entirely delineated or predicted in advance, which challenges dominant approaches to project planning. All of these challenges are illustrated in the case study analysis below.

## Practice

As a design-based *practice*, rather than primarily an analytic tool or theory, systemic design is a craft with practical tools and techniques to enable participation, reflection

and action. Like other forms of design, systemic design "is not a single method that can be applied like a boilerplate from one situation to the next" (Luck 2018). The practice of systemic design is shaped by the context in which it operates, as well as the resources and norms within those systems and the skills and limitations of individual practitioners (Jones 2014, 2018). It includes relational practices of helping, building, challenging, sharing, creating and innovating (Hancock 2019, 31).

Adopted and adapted from relevant disciplines (such as systems thinking, participatory design, community engagement, human-centred design, action research, appreciative inquiry, organizational design, dialogic design and principles-based evaluation), systemic design capabilities are developed through learning, action and reflection. Jones (2014) has identified five key methods of systemic design practice, which enable interventions within the third and fourth order of design. These are all illustrated in the case study analysis: human-centeredness, convening stakeholders, dialogic process, iterative inquiry and multiple design actions over time.

## Policy design case study

As well as providing concrete examples for each domain of the practice framework, the community services policy case study illustrates several challenges for adopting and applying participatory, systems-aware and design-led approaches to policymaking.

## Principles

The primary *purpose* of the community services policy project was to improve how the government organization provides and supports community facilities. A secondary aim was to build capability in and test a design-led approach to policy development and stakeholder engagement. Visual depictions of the policy issue helped project participants and stakeholders develop a holistic understanding of its *complexity*. One diagram (with concentric rings showing all the teams involved and data points indicating the volumes of work) in particular helped participants to understand the issue, identify their role in the system, and recognize the complicated organizational relationships surrounding community facilities. A team member described how participating in the project shifted their perspective to see relationships, rather than a document, as the most important output of a policymaking process. This aligns with Bijl-Brouwer and Malcolm's (2020, 396–367) observation that a distinguishing feature of systemic design, especially when compared with human-centred design, is its concern for human relationships.

The *inclusive* methods of the design-led approach, discussed further below, allowed the policy to develop in a real-life context, with input from people who would be responsible for implementing it. The Practice section illustrates how various methods and tools were used to "help different participants to express their needs and visions" (Luck 2018), which had the effect of *equalizing power* relations. While a wide range of stakeholders, including representatives of community organizations, were involved in the policy development process, this did not include citizens until the consultation phase. This, and the challenges of indigenous engagement, described in the next

section, illustrate some of the limitations of participation and *self-determination* commonly faced in a government context (see, e.g. Blomkamp 2018).

The design-led process involved multiple feedback loops between project team members and stakeholders, which supported practice improvements and generated strategies for policy implementation. The mutual *learning* through the project helped participants to assess and question whether they were working in a meaningful way. The engagement process and materials fostered knowledge transfer between community members, policymakers and other stakeholders. The walkthroughs in particular (see *Practice* below) further encouraged a collaborative approach to embedding learning in the organization.

## Place

The community services policy project was particularly complex in that it involved all orders of design. Policy design fits within the fourth order, which directly corresponds with systemic design. The focus of this policy was on the third order activities of the organization, which required consideration of "governance, operations, product line and service strategies, human resources, and all internal systems" (Jones 2014). Key outputs of the project were documents and posters (second order), which followed the visual style guidelines of the organization and represented ideas in new, visual ways (first order).

Systemic design practice (fourth order) may only be appropriate and effective in certain circumstances and environments. The case study suggests that conditions for a systemic design approach to policy include:

- An organization that allows for experimentation;
- A project team open to new ways of working, including democratic approaches to decision-making and power-sharing;
- A project/team leader with experience of design and skills in the use of participatory and creative methods, as well as having the authority, autonomy or permission to apply these methods; and
- A policy requiring significant consultation or engagement with stakeholders and/or community members.

This is not a definitive list of prerequisites for systemic design for policy; rather it identifies key elements from the case study as enabling conditions or key factors for success. Particular constraints in this organization were:

- Ways of working that did not accommodate design-led practice;
- Limited capacity and capability in systemic design practice;
- Inconsistent understandings of methods (language, techniques and tools); and
- Lack of foresight to engage Māori in the policy design process.

The lack of support and ownership from senior management is often identified as a key challenge with design-led approaches in government (Bason 2014; McGann, Wells,

and Blomkamp 2021), as the process and outputs are unlikely to gain sufficient influence and impact if not supported by the authorizing environment. Some participants considered that the lack of understanding of the value and principles of human-centred design from some managers and politicians, or the view of it as "a fad," was a limiting factor in this project. An interesting outcome from the project, however, was that its perceived success encouraged wider adoption of design-based methods throughout the organization. This reflects how a systemic design project is not only constrained by its environment, but its self-organizing and emergent properties can shape that context too (van der Bijl-Brouwer and Malcolm 2020, 397).

The constitutional conventions in a state also set some boundaries and principles for policy development. Under the Treaty of Waitangi, government organizations in New Zealand have obligations to work in partnership with Māori (*mana whenua*). The policy design team were surprised to discover early in the project that the government organization had few, if any, partnerships with *marae* (traditional gathering places for Māori that continue to be important community facilities and sites of cultural knowledge). The project scope had not initially included any focused engagement with Māori, so an additional workstream, dedicated project team and Māori design contractors were added. The additional work involved in rebuilding relationships with Māori put additional pressure on the project team and timelines. Despite the challenges and inability to resolve historical injustices, the Māori engagement workstream effectively informed the policy development. A team member explained, "some of the things we heard about what good relationships look like has totally made its way into the mainstream policy. And that wouldn't have happened had we not spent the time that we have with Māori over the last year." These examples of indigenous engagement illustrate an important element of how systemic design needs to respond to place, or context, in colonized countries.

## People

The community services policy project brought together staff from different parts of the organization to work across silos; as one team member explained, "it breaks down those artificial divisions". The systemic design approach enabled the team to build and strengthen internal relationships to access information and understand different aspects of the policy. This was achieved by having people involved at the operational and policy levels of the organization, as well as developing relationships with community stakeholders.

Key human resources and capabilities involved in the project included, with reference to the roles identified by Leadbeater and Winhall (2020) in brackets:

- *Lead policy designer*: the Principal Policy Analyst instigated and managed the project throughout all phases. As lead policy designer (inside-outsider), they used sophisticated project management, institutional knowledge and policy analysis along with facilitation, strategy, design thinking and related creative skills. This person had a unique mix of creative capabilities and analytical skills that may not always be found in one individual.

- *Design coach/co-facilitator*: a consultant was hired to support the policy design and facilitation activities. An expert facilitator (convenor), they used various methods and facilitation skills throughout the process to guide the project team to think visually and to forge positive group dynamics, as well as providing moral support and strategic advice to the lead policy designer.
- *Visual designer*: as the visualization of concepts and production of materials is an essential part of design-led policymaking, a communication designer (entrepreneur) was contracted to communicate the ideas in simple yet nuanced and effective ways.
- *A multi-disciplinary, cross-organizational team* of "the right people": the project team included staff from different departments at the operational and policy levels who were committed to building internal and external engagement and had the ability to "work differently".

Other important roles included Māori design consultants and two senior managers (project commissioners). Apart from the Principal Policy Analyst, participating staff remained in their usual role and were not relieved of any responsibilities, which made it difficult to fully participate in a systemic design process. One staff member commented, "A real challenge for bureaucratic organizations that are politically driven is being able to fund that amount of flexibility in frontline staff to contribute." External consultants or contractors, like the design coach and communication designer, are often used in these contexts to increase capacity and provide expertise, especially when organizations are fairly inexperienced in systems or design-led methods.

Apart from representatives of community organizations in the discovery phase (see Figure 3), it is notable that citizens were not included in the policy development process. The lead policy designer consistently acknowledged that the project took a "design-led" approach but was not an example of "co-design," since they did not actively engage different users and stakeholders throughout the process: "I don't think it's co-design if you haven't got all the people in the room, who are basically

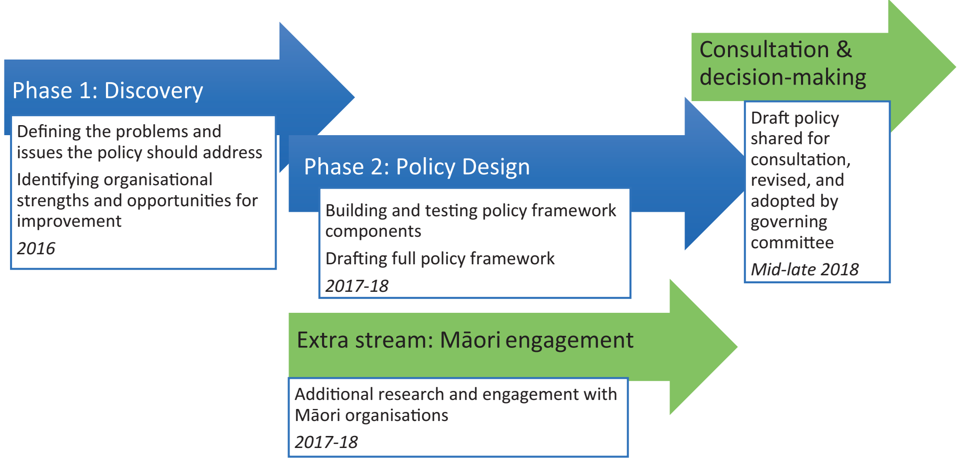


**Figure 3.** Community services policy design process.

representing all the different users in the system." In this way the project did not overcome typical power imbalances and information asymmetries between governments and policy beneficiaries. Through greater involvement of affected citizens, the project could have gained more diverse insights and reframed problems "in more acute and nuanced ways 'than professionals acting alone'," (Fung 2015, 5; McGann, Wells, and Blomkamp 2021, 5). The designerly methods nevertheless allowed stronger participation of citizens at the consultation stage and of internal stakeholders throughout the policymaking process.

## Process

The community services policy project involved two key phases, modeled on the "double diamond" (Design Council 2007): discovery (understanding) and design (imagining and making). They were accompanied by the additional indigenous workstream, and followed by public consultation and decision-making by elected politicians (see Figure 3). The designerly practice of exploring problems and causes, before fully defining the issue to be addressed, goes against conventional approaches to policy, and was not fully supported by staff accustomed to traditional modes of policy analysis. While the double diamond is commonly used and understood as a heuristic to represent the design process, in reality a design-led process is iterative and messy. Following a systemic design process can result in the scope and focus of the project changing regularly. As one internal stakeholder stated, "You know the process loosely that you're going to use—that mentality is really hard for some people [in this organization] to take and possibly also support their staff to go on that journey because they want to know what's going to happen at each touchpoint." A team member similarly reflected on the challenge of an iterative approach, "Your project manager has to be open to the fact that this means that this either will take longer or that some of your stuff is more flexible at the end, or there might be parts that compress and expand; even if you need to end up here by this date, it's more movable." The flexibility needed made it difficult to fully implement a design-led process in this bureaucratic context.

Several participants commented that the design-led approach had not proven to be quicker or cheaper than regular practices of policy development. One manager suggested that elected decision-makers desire an efficient, not a creative, process. They argued that, unless politicians were calling for design-led methods, there was no mandate for using them. Another participant suggested that a design-led discovery phase may be useful at the start of a policy project, but then traditional policy analysis should take precedence. A culture of risk aversion and overly bureaucratic processes are commonly identified as challenges for change and innovation in government, especially for systemic design practice (Bason 2014; McGann, Blomkamp, and Lewis 2018).

## Practice

The community services policy project demonstrates the importance of selecting, adapting and applying appropriate techniques and tools to engage a variety of stakeholders, build shared knowledge and maintain momentum over an extended period of

time. Practical tools and designerly methods (in italics below) were used during the project by the lead policy designer and co-facilitator to enable numerous stakeholders to meaningfully participate in dialogue and co-creation.

A variety of *facilitation tools and techniques* enabled participation and fostered group dynamics. Relational practices and resources such as flipcharts, sticky notes, Lego, picture cards, sketching, games and role play were used by the experienced co-facilitators to keep meetings and workshops lively and to facilitate discussion and learning. At the same time, they helped to build trust within the team and ensure that all participants felt safe and comfortable interacting and contributing.

*Empathy interviews* were a data collection technique applied to gain an in-depth understanding of the needs, experiences and aspirations of community members, staff and other stakeholders. Conducted by staff from different departments, the empathy interviews served to explore the policy problem from different perspectives and build early engagement with users and stakeholders in defining the issue together as a "shared problem". They also provided a rich source of stories and natural language quotes. With the emphasis on hearing the voice of "users," staff from operational and policy levels put themselves into a deep listening mode through the interviews. By analyzing the interview findings as a project team, one member explained, "We really understood what different people's motivations and influences and things that were obstructing them were." Another participant said the interviews enabled them to develop a "depth of knowledge really quickly" and "having that story context around people's issues and how the policy can help address a lot of those things was really helpful."

*Personas, scenarios and vignettes* were generated to represent typical policy users and situations, showing the personal, operational and systemic impacts of experiences in a human-centred way. These fictional representations were easy to recognize and relate to, helping stakeholders to understand the impacts of the current approach and work through possible implications of a new policy framework. At the same time, they made it safe for participants to share their experience without identifying particular individuals or organizations.

*Graphic visualization* and communication tools, such as infographic diagrams and sketches, were valuable for getting complex information and key messages across in a simple and engaging way. The visual representation of different stakeholders helped people to see both their role and relationships as well as the complexity of the system surrounding the issue. By disseminating information in images that told stories, rather than only through words, participants were able to engage with a lot of content quickly.

*Walkthroughs* were interactive sessions where stakeholders were invited to view the work in progress and to participate in providing feedback and validation on findings. Considered a particularly effective method for engaging stakeholders throughout the project, the walkthroughs shared the voices and views from the community and demonstrated how insights, data and feedback gathered along the way were taken into account. They allowed stakeholders, including elected members, to see work in progress and provide feedback in early phases of the project, well before the usual consultation period. This offered a less formal and more convenient validation process, as

people could review and comment on components of the policy in their own time and in a range of formats.

Several participants commented on the subsequent adoption of walkthroughs and other design methods throughout the organization as a result of exposure to this project. While some expressed concern about people without the skills, time or experience to effectively execute walkthroughs adopting this technique; on the whole, the interest and take-up of this practice was seen as evidence of a design-led approach spreading through the organization. The community services policy walkthroughs were especially successful because they pictorially presented complex problems and systems, curating experiences for the people involved and showcasing the flow of information in carefully designed visual materials. The development of the final written policy document extended and complemented the visual and narrative elements developed in earlier phases of the project to continue communicating complex and abstract ideas in engaging ways. The case study thus demonstrates the ongoing importance of esthetics within first and second order "design as making," even in the complex landscape of the fourth order of "design as social transformation" (Aguirre Ulloa 2020, 39–43).

The openness of design practice encouraged experimentation and risk-taking. For some team members, *design* was code for "different ways of doing things". Participants described design as a methodology that took its own shape to fit the project purpose or as a creative multidisciplinary practice, but not necessarily involving *only* design-based methods. One team member praised the flexibility of the approach for encouraging self-determination and different ways of thinking: "Because [in government] you get very locked into processes and systems and ways of working, and what I like about this is [it's] different and we can create it."

## Conclusion

Overall, the design-led approach of the case study project had benefits for policy-making, particularly by building a human-centred understanding of issues and systems, and by involving a range of people in innovative and engaging ways. The experience of taking part in the project encouraged staff to be in a continual state of readiness for change, since they saw the value in not starting with predetermined problems and were eager to experiment with different methods. There was not, however, consistently strong understanding or support for this approach throughout the organization, especially by senior managers. It was at times challenging for the organization to provide the requisite skills and expertise for systemic design, or to adapt to different ways of working. None of this is surprising given that this was the first time the organization had experimented with a design-led policy development process. As Evans and Terrey (2016, 257) have written on co-design for policy, this approach "requires particular skills of observation, negotiation and empathy that are often in short supply in many public sectors."

Participants also noted that the collaborative approach to building relationships and understanding demanded more time than usually required by staff in the early phases of policy development. As has been argued elsewhere, concerns "about the requisite time and cost of co-productive policy approaches should be taken into account when

managers decide which policy issues warrant a more participative approach" (McGann, Wells, and Blomkamp 2021, 16). Other research on co-design, co-production and public sector innovation has similarly highlighted the challenge of introducing designerly methods and participatory practice into the hierarchical and bureaucratic culture and structures of government (Bason 2014; McGann, Wells, and Blomkamp 2021; Lewis, McGann, and Blomkamp 2020; Blomkamp 2018; Durose and Richardson 2016; Aguirre Ulloa 2020). Despite the challenge and cost of participatory approaches, systemic design may nevertheless "pay off in the longer run in terms of establishing solutions that enjoy a higher degree of endorsement and robustness" (Dieckmann et al. 2020, 158).

The case study illustrated the core domains of the "5 Ps" framework for systemic design: principles, place, people, process and practice. It is expected that by reflecting on their work in relation to each domain of the framework, practitioners could identify constraints, guiding principles and practical options to pursue. Using the narrative form of news journalism as an analogy, the practice framework could be used to tell a story of why (principles), where and when (place), who (people), how (process) and what (practice) is, was, or will be involved in participatory policymaking. In particular, this can highlight missing elements and likely challenges to overcome in practice. Further research could explore the value and limitations of applying the practice framework in specific circumstances, not only in participatory policymaking but in other collaborative approaches to systems change. It would be particularly relevant to consider its application to cases that more fully involve the public in systemic design.

## Acknowledgments

Some case study analysis was conducted by research assistant Primatia Wulandari. The paper was strengthened following helpful comments by the journal's peer reviewers and discussion at workshops at the National University of Singapore (March 2020) and at RSD9 (October 2020). The author sincerely thanks the participants in the case study research, especially the key informant (Principal Policy Analyst), for their openness and time.

## Disclosure statement

In accordance with Taylor & Francis policy and my ethical obligation as a researcher, I—Emma Blomkamp—am reporting that I am a consultant whose business may be affected by the research reported in the enclosed paper. The research was developed prior to my current role, when I was fully employed at The University of Melbourne, and where I continue to be an Honorary Fellow.

## Funding

The case study research presented in this article was supported by The Policy Lab at The University of Melbourne and some analysis conducted by research assistant Primatia Wulandari.

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