Growing interest in the potential of collaborative approaches to knowledge production as innovative solutions to bridging the research-to-practice gap (Boaz et al, 2018; Rycroft Malone et al, 2016) has been accompanied by critical considerations, both in this journal (for example Geddes et al, 2018 and Décieux, 2018) and wider public management literatures (Osborne et al, 2016; Osborne, 2018). Several recent reviews and commentaries (for example, Beresford, 2019; Paylor and McKevitt, 2019; Greenhalgh et al, 2016) and a special issue (Bovaird et al, 2019) have considered the nature and scale of the potential contribution of such approaches – broadly defined – to improving public services. While some of these have discussed ‘co-production’, the term ‘co-creation’ has also been used in the knowledge mobilisation literature to describe close, collaborative working (Langley et al, 2018; Pokhrel et al, 2014). Co-creation itself was originally popularised in the context of business management by Prahalad and Ramaswamy (2000; 2004) who argued that the ‘distinguishing feature of the new marketplace is that consumers become a new source of competence for the corporation’. But evidence to support co-creation (and indeed co-production) as a knowledge mobilisation intervention remains thin on the ground; as a potential strategy for transforming relationships between knowledge producers, policy makers, practitioners and publics, co-creation continues to sound somewhat optimistic if not naïve.
This special issue arises from an international pursuit funded by the US National Science Foundation through SESYNC (the National Socio-Environmental Synthesis Center) to further explore the contribution of co-creation to support the use of evidence in policy and practice change. Pursuits are collaborative, transdisciplinary activities where teams come together to work through a topic or challenge. For this pursuit, we focused on co-creative capacity, which we defined as ‘the deep involvement of a range of key stakeholders across scientific, governance, and local practice boundaries to create the infrastructure and context that enables and sustains the use of evidence in practice’ (Metz and Bartley, 2015).

The contributors come from a diverse set of disciplinary backgrounds, work in different policy and practice domains, and span geographic boundaries – North America, South America, Europe and Australia. While they share a commitment to promoting evidence use and experience of working with stakeholders, they are not experts in co-creation. Together, they have developed their thinking over a series of international meetings, and this special issue presents a selection for the international evidence and policy audience. This editorial seeks to draw out the learning from the contributions and to reflect on how they relate to the wider co-creation literature and debates.

The individual papers grapple with a range of issues. These include whether co-creation is distinct from other modes of research and practice approaches – including, for example, stakeholder participation – and whether there are common features that guide co-creative processes and produce value to participants. The papers consider specific tools for supporting co-creation and suggest methods for assessing whether co-creation achieves the intended benefits. Taken as a whole, the papers interrogate three key questions:

1. What is co-creation and why is it used?
2. Does co-creation produce added value and contribute to desired outcomes?
3. What frameworks and tools can facilitate co-creation?

What is co-creation and why is it used?

Locock and Boaz (this issue) and Nichols et al (this issue) consider whether co-creation has been sufficiently clearly defined as an approach to closing the research-to-practice gap, and whether co-creation is distinct from other stakeholder participation approaches. In Nichols and colleagues’ research article and Locock and Boaz’s debate piece, the boundaries of co-creation are examined in terms of whether it is a unique approach worthy of specific methods and practices. While these papers offer differing points of view regarding the utility of co-creation as a distinct approach – Locock encouraging boundary spanning to promote learning across different participatory approaches, and Nichols positing that viewing co-creation as a unique research approach will provide a basis for critical reflection, ongoing improvement, and a platform for debate on ethics, legitimacy and quality of co-creation approaches – both papers present a shared understanding of the motivation and purpose of co-creation. They describe motivations for co-creation in terms of the inclusion of those likely to be affected by the work and making interventions more likely to reflect the needs of service users in their daily lives.

Both papers explore how issues of ethics, power and legitimacy are considered in co-creative approaches asking key questions about why it matters that patients are
involved in designing and evaluating interventions. Nichols and colleagues use critical heuristics to tackle issues of motivation, power, expertise and legitimacy in more detail. For example, when exploring issues of power, they describe shared decision making as an important feature of co-creation. Legitimacy of co-creation approaches is underpinned by explicit core values and assumptions about how affected parties will be involved in the work.

Research papers by Yazejian et al and Sherriff et al (this issue) take a more pragmatic approach and hypothesise that core features of co-creation can be operationalised and evaluated. Yazejian and colleagues use a case study methodology to assess whether the use of a co-creative technical assistance approach with Head Start early childhood centres in the US achieved intended outcomes, and Sherriff and colleagues describe critical success factors pertaining to a co-creative approach used in the Study of Environment on Aboriginal Resilience and Child Health (SEARCH) in Australia. While these studies were conducted in different countries and service settings with different populations, the authors define similar core features of co-creation:

- **Valuing local knowledge** – Yazejian and colleagues describe co-learning as understanding context and culture, creating spaces for new ideas to emerge, valuing the expertise of local practitioners and families, and synthesising diverse perspectives and checking for understanding. Sherriff and colleagues describe valuing local Aboriginal knowledge by working collaboratively with Aboriginal communities to produce a more culturally sensitive design and employing local Aboriginal staff to provide guidance on the research design, data collection, analysis and interpretation.

- **Brokering connections and building trust** – Sherriff and colleagues discuss connecting across cultures by supporting mutual learning through small, frequent and informal meetings with the community. They note that both the quality and quantity of interactions was important for building and sustaining trusting relationships. Yazejian and colleagues describe brokering as an essential element of co-creation. Brokering involves connecting otherwise disconnected individuals or groups affected by the work and enabling knowledge exchange. Connections among individuals and communities is described as vital to the success of the work. Yazejian and colleagues also discuss building trusting relationships and approaching the co-creative work with regard for others as legitimate, respected, and valuable contributors to the development and growth of the innovations and associated processes and outcomes.

- **Ongoing collaboration, investment and support** – Sherriff and colleagues describe how resources, reciprocity, and follow-through demonstrate long-term commitment to community members, while Yazejian and colleagues describe the importance of tailoring support so that the frequency, duration and intensity of co-creative support depend on the needs, goals and context for the local community. Both approaches, however, emphasise that such tailoring helps to build trust and relationships which are central to successful co-creation efforts.

- **Leadership** – Yazejian and colleagues describe how co-creative approaches foster space for new and emerging leaders, particularly those without historic or current access to power. This aligns with Sherriff’s description of strong credible leadership that ensures everyone has a voice and diversifies the partnership’s perspectives.

- **Facilitation** – Yazejian and colleagues explain the importance of facilitation to enable participatory problem solving; they promote cycles of mutual consultations
among stakeholders to ensure different forms of knowledge and ways of knowing are integrated in planning and solutions. Sherriff and colleagues emphasise shared power and collaborative problem solving where facilitation supports working through challenges together.

**Does co-creation produce added value and contribute to desired outcomes?**

Research papers in this issue demonstrate empirical support for co-creation and identify research questions and designs that can fill gaps in the evidence base. Yazejian and colleagues demonstrate the successful use of a co-creation approach when providing implementation support (in the form of technical assistance) to Head Start regional centres. Technical assistance is the provision of expert advice to support the implementation of evidence into practice. It tends to be quite a ‘top-down’ approach, so the development of more co-created technical assistance was a novel way of supporting the uptake of research evidence. This co-creation approach supported the achievement of interim outcomes including trusting relationships, mutual accountability for implementation and outcomes, and some integration of evidence-based implementation approaches into ongoing supports for Head Start early child programmes across three federal regions in the US. The authors note that outcomes were achieved even with a relatively low ‘dosage’ of onsite technical assistance, highlighting the potentially robust effects of co-creation.

Sherriff and colleagues illustrate how SEARCH, a co-creative partnership with Aboriginal services, researchers, policy makers and clinicians, resulted in trusting relationships that have led to improved outcomes for Aboriginal communities. They note that trusting relationships described by participants contrast markedly with accounts in the literature, suggesting that co-creation provides a distinct opportunity for building trust between researchers, policy makers and local communities. The development of trust is one of the most important requirements for successful research-practice partnerships and one which requires commitment, openness, honesty, respect, and a willingness to learn about one another (Palinkas and Soydan, 2012). These papers demonstrate how co-creation approaches can effectively build trust, providing the foundation for successful partnerships and the development and implementation of interventions that are more likely to meet the needs of local community members.

Despite such empirical evidence for the potential of co-creation, case studies are limited in their generalisability. Metz and colleagues (this issue) identify key research questions for determining the extent to which co-creation can contribute to evidence use and positive outcomes for people and communities. The study focuses on a form of support commonly provided in the US to support the implementation of evidence. This support, described as technical assistance, covers a wide range of activities designed to increase the local uptake of research evidence. The paper outlines the protocol for a study that will address the following research questions: 1) to what extent do technical assistance strategies involve stakeholders and for what purpose? and 2) under what conditions have specific technical assistance strategies, including strategies that foster stakeholder participation, contributed to supporting research evidence use? The study will investigate how, when, and with whom co-created technical assistance strategies promote the use of evidence and facilitate improved outcomes for people and communities.
What frameworks and tools can facilitate co-creation?

Two practice articles in the special issue (Bammer; Zurbriggen) identify specific tools and processes for facilitating and studying co-creation. Bammer proposes the Integration and Implementation Sciences (i2S) framework to systematically consider multiple stakeholders’ contributions. Bammer posits how this framework can be used to study co-creation processes and how elements of complexity might be systematically addressed. Bammer makes use of an existing tool, developed by the International Association for Public Participation, for assessing how best to involve specific stakeholder groups during the co-creation process. This raises the important point that when dealing with multiple stakeholder groups co-creation processes need to understand and address how best to involve different stakeholders. Do all stakeholders need to be engaged in the same way for the same purpose? Is empowerment the end goal for all or indeed any stakeholders? Or are different engagement strategies appropriate depending on the relevant stakeholder input?

Zurbriggen (this issue) introduces a Roadmap used to study and improve co-creation in a public innovation lab project in Uruguay. Zurbriggen encourages a shift beyond simply measuring outputs (for example, number of workshops, number of stakeholders who attend workshops, number of prototypes developed) to using methods that embrace learning and mutual consultation to understand and improve co-creation efforts over the course of an initiative. The Roadmap provided a fundamental contribution to the Uruguayan public innovation lab, supporting the acquisition and use of data that provided feedback on tools and ideas to enhance co-creation.

What next?

Taken as a whole, the special issue makes an important contribution to our understanding of the potential role of co-creation in closing the research-to-practice (and policy) gap. Debates on the purpose of co-creation and critical assessments of the merit of co-creation as a distinct method for engaging stakeholders provide important perspectives for studying the motivation, ethics and legitimacy of co-creation approaches. Research papers offer well operationalised definitions of the core features of co-creation and demonstrate evidence for the nature of the value co-creation can add in building successful partnerships which bridge a range of stakeholder experiences and needs. Research papers also raise important empirical questions, providing a call to action for researchers and co-creation studies in the ‘research-into-practice’ field (Oliver and Boaz, 2019). Finally, practice papers provide specific tools, methods and frameworks for understanding and improving co-creation processes.

While participants in our pursuit report several challenges in working more co-creatively, the general theme is one of optimism about the potential when working within existing systems of public service provision. Elsewhere we are starting to see closer explorations of the reality of co-creative approaches for participants; for example, a number of authors have written about the ‘darker side’ of the co-production of public services (Fotaki, 2015; Beresford, 2019). What is of interest to us as editors is not just what these papers cover, but also two interesting absences – perhaps reflecting the relative novelty of co-creation for the pursuit participants – and to which we
would point researchers and practitioners interested in exploring ‘where next’ for how co-creative approaches might help bridge the research to practice gap.

Firstly, we note that the collection of papers in this special issue largely frames both the representation and practice of co-creation in technocratic or traditional knowledge management terms (for example, ‘technical assistance’ and ‘stakeholder participation’ strategies). Many of the contributions view co-creative approaches predominantly as a means through which public service organisations can bring new participants into existing processes and ways of working; an incremental or first-order approach to change. But as Greenhalgh et al have identified, a common feature of emerging co-creation models in the community health-care setting is to view ‘research as a creative endeavor, with strong links to design and the human imagination’ (Greenhalgh et al, 2016). Woodman (2014) defines creativity in organisational contexts as ‘the creation of valuable new products, services, ideas, processes, or procedures by individuals working together within complex social systems’, and as comprising two basic dimensions: 1) originality or invention, and 2) value or utility. Moving forward, we would recommend a greater focus on the topic of creativity and how this may be applied to ‘evidence into practice’ debates.

Secondly, we would encourage returning to the historical roots of co-creation and co-production to help understand the differences between them and their potential contributions to evidence-informed policy and practice. As Paylor and McKevitt observe, this would provide opportunities to re-engage with practices and values of participatory research traditions – as well as the history of social movements – which may help us to further explore critical issues of power, ethics and social justice (Paylor and McKevitt, 2019). Beresford’s account placing co-production in a historical and political context exposes a number of issues, including the persistent pull of tokenism and dominance of bureaucratic systems designed to manage participation (Beresford, 2019); such considerations highlight the future importance of exploring the relative effectiveness of co-creative approaches that are situated not just within but also external to existing organisational structures and processes. Taken together, these two directions – with a common focus on value creation – might realise more transformative, second-order processes of co-creating knowledge which could better contribute to closing the research-to-practice gap with the goal of improving services.

Conflict of interest
The authors declare that there is no conflict of interest.

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