research article

The Capabilities in Academic Policy Engagement (CAPE) programme in England: a mixed methods evaluation

Petra Mäkelä, petra.makela@northumbria.ac.uk
Northumbria University, UK

Annette Boaz, annette.boaz@kcl.ac.uk
King's College London, UK

Kathryn Oliver, Kathryn.Oliver@lshtm.ac.uk
London School of Hygiene & Tropical Medicine, UK

Background: Interventions to support engagement between academics and policy professionals have proliferated, yet little evidence is available to guide what works, how, or for whom.

Aims and objectives: To evaluate the activities, outcomes and impacts of the Capabilities in Academic Policy Engagement (CAPE) programme and identify enabling conditions, using a modified framework for academic-policy engagement.

Methods: Mixed methods evaluation across four intervention types (seed funding, policy fellowships, training, knowledge exchange events), between 2021 and 2024. We interviewed academics, research support staff and policy professionals (n=129), observed 32 activities, and distributed a survey (n=42, 27 per cent response rate). We analysed data using inductive and framework analyses.

Findings: CAPE interventions focused at the linear (training) or relational (fellowships, seed funding and knowledge exchange) levels. Interventions led to outcomes in capacity-building, connectivity, conceptual and attitude change, and tacit knowledge development. Interventions were resource-intensive and required responsive intermediary skills, particularly fellowships. We found influencing factors at individual, organisation and system levels. The most experienced participants preferentially benefited from opportunities, potentially perpetuating or even exacerbating inequalities. We did not find evidence of impact on policy processes or outcomes.

Discussion and conclusions: CAPE led to an increase in academic-policy engagement activities, mostly as linear and relational interventions. These generated costs as well as benefits and often advantaged individuals with significant prior experience of academic-policy engagement. Future academic-policy engagement interventions should consider motivations, capabilities, goals and resources at the individual and organisation levels, while using strategic planning and coordination to maximise their value, and address diversity and inclusion.

Keywords academic-policy engagement • relational interventions • mixed methods evaluation • action framework

Background

There are growing international calls for engagement between academia and policy, to enable research-informed policy making (Gade, 2023). Meanwhile, higher education institutions (HEIs) are under increasing pressure to become more accountable to the wider public and to establish a direct value to society (Compagnucci and Spigarelli, 2020). The last decade has seen an expansion in policy engagement bodies set up within HEIs, driven by initiatives that are intended to improve research utilisation, such as the Research Excellence Framework impact agenda in the UK (Smith et al, 2020; Durrant and MacKillop, 2022; Kuchenmüller et al, 2022). However, academics and policy makers ask different questions, on different timescales, and function with varied norms and value systems around knowledge generation. Research evidence must be communicated, discussed and made sense of, if it is to be put to use to addressing problems in decision-making and to benefit individuals and societies (Henig, 2008; Oliver and Boaz, 2019; Bogenschneider and Corbett, 2021).

Academic-policy engagement has been conceptualised along a spectrum, from linear 'push' of evidence by research producers or 'pull' by research users, to relational forms of engagement underpinned by interaction, to system factors shaping the broader context, such as leadership and incentives (Lavis et al, 2006; Best and Holmes, 2010; Weiss, 2021). Academia has traditionally been dominated by impact measures that assume linear processes of knowledge transfer through research publications, which do not rely on connections between evidence producers and users. Increasingly, expanded roles are imagined for the researcher as a '"copreneur", advocate, cocreator, and provocateur' (Ozanne et al, 2017: 12). Here, the positioning of research evidence as a resource in policy making shifts, as it is not necessarily applied directly (Weiss, 2021). Instead, academic-policy interactions and negotiations between perspectives may enhance mutual understandings of problems. This strengthening of relationships between research producers and users is consistently identified as an enabler for evidence-informed policy (Pabari and Goldman, 2023).

Engagement efforts reach across levels from individual researchers or policy professionals, to the organisational, and to broader political, social and economic levels (Calnan and McHugh, 2023). However, strategies are often targeted at individuals (Van Den Driessen Mareeuw et al, 2015; Boaz and Oliver, 2023), though may not take account of factors such as gender, race and career stage, which can influence individuals' engagement (Smith and Stewart, 2017). Although a broad range of engagement interventions and activities have proliferated in attempts to support engagement between academics and policy professionals, scarce evaluation evidence exists to guide what works, how or for whom (Oliver et al, 2022). It remains uncertain how interventions at the interface between the institutions of policy and academia can best facilitate engagement (Oliver et al, 2022).

Here, we present findings from an evaluation of a national programme in England, known as Capabilities in Academic Policy Engagement (CAPE). The evaluation aimed to examine approaches to support academic–policy engagement (Mäkelä et al, 2024b). We used a modified action framework for the evaluation of academic–policy interventions (Mäkelä et al, 2024a), based on a framework known as SPIRIT (Redman et al, 2015). In the following section, we provide a brief overview of the CAPE programme and introduce the modified SPIRIT framework, before presenting the evaluation methods and findings.

The Capabilities in Academic Policy Engagement programme

The CAPE programme aimed to understand and to enhance academic–policy engagement in different geographical and policy contexts across England. It was a collaboration between University College London (UCL) and the Universities of Cambridge, Manchester, Northumbria and Nottingham, the Government Office for Science (GOS), the Parliamentary Office for Science and Technology (POST) and Nesta (an innovation agency). Table 1 shows an overview of CAPE's four main categories of intervention. These interventions underpinned the programme's Theory of Change (https://www.cape.ac.uk/theory-of-change/), in which the intended impacts were specified as (i) knowledge of what works in academic policy engagement; (ii) improved structures and systems; and (iii) a more diverse and inclusive academic policy landscape.

Table 1: An overview of the CAPE academic-policy engagement intervention categories

Intervention category	Description	
Policy fellowships	(i)	'Incoming': Policy professionals visit HEIs to talk to academics and professional services staff about policy questions. Coordinated by CAPE staff at each HEI. Policy fellows conduct the visits in person or remotely, alongside their usual jobs.
	(ii)	'Outgoing': HEI staff placed into policy organisations for secondments, away from their usual work base, for projects at local, regional and national policy levels.
Seed funding	(i)	Collaborative fund: Applications co-developed between academics and policy partners, for research or knowledge exchange activities to address specific policy needs.
	(ii)	Challenge fund: Policy professionals put forward policy challenges, to which academics respond with a project proposal.
Knowledge exchange	A range of events and activities to build networks and help identify scope for future collaborations:	
	(i)	Individual level (for example, HEI–policy pairing scheme).
	(ii)	Collective level (for example, bespoke seminars, roundtables or workshops), as one-off activities or a linked series.
Training	(i)	Training for policy professionals from one government department, which informed development of an Engaging with Evidence toolkit for use in other academic-policy training initiatives.
	(ii)	Community of Practice for HEI staff interested in academic-policy engagement and its facilitation.

Framework for evaluation of academic-policy interventions

We used a modified framework called SPIRIT-ME, which we developed from an established action framework originally designed to underpin a study called Supporting Policy In health with Research: an Intervention Trial, or SPIRIT (Redman et al, 2015). Our modified version extended the original framework's scope beyond the use of research by health policy agencies in Australia, to be applicable for multidimensional engagement dynamics between academia and policy (Mäkelä et al, 2024a).

Methods

We follow the Standards for Reporting Qualitative Research (SRQR) (O'Brien et al, 2014). The evaluation was independently conducted alongside the CAPE programme delivery. The evaluation team comprised two academics who direct a hub for global scholarship on evidence production and use across all policy and practice domains, and an academic with experience in evaluation of complex interventions.

We conducted semi-structured interviews with a sample of CAPE programme delivery group (PDG) members, HEI and policy participants across all intervention streams, we undertook participant and non-participant observations in meetings and events, and we shared a survey with participants across all intervention streams.

Interview study

We used purposeful sampling to invite potentially information-rich participants in relation to the evaluation questions (Palinkas et al, 2015; Patton, 2015), and sought to reflect diversity in terms of role (policy professionals, academics and professional services staff), gender, career stage, ethnicity, geographical and organisational base, discipline, and from central government departments, local authorities, regional or combined authorities. The sampling strategy encompassed varied stages of progression in the CAPE activities, that is, early, mid and late stages of involvement. This sampling relied upon knowledge held by the CAPE coordinators at each HEI about potential participants to invite. Data on the characteristics of participants were not collected, to ensure participant confidentiality.

An initial invitation email was sent to each prospective participant by PM or CAPE coordinators. Written informed consent was recorded. We made participants aware of the independence of the evaluation from the delivery of the programme. The interviews were conducted by PM, who is experienced in qualitative interviewing and did not have relationships with the participants prior to the study.

We developed a semi-structured topic guide, which was tailored according to interviewees' roles. The guide was informed by the research questions and explored barriers and facilitators for academic-policy engagement. Interviews were conducted between October 2021 and December 2023. They ranged between 20 and 90 minutes, with a median of 50 minutes. We conducted single timepoint interviews with intervention participants, hosts, trainers and facilitators across intervention types (fellowships, seed funding, knowledge exchange and training), with staff at each of the five partner HEIs and with policy collaborators. We conducted longitudinal interviews

with members of the PDG at two time points: near the start (2021–2022) and end of the programme (2023–2024).

Observations

We conducted non-participant and participant observations, in conjunction with the semi-structured interviews, to gain nuanced appreciation of CAPE events and activities that may not have been captured through other methods (Liu and Maitlis, 2010). The focus was on the nature and quality of academic-policy interactions during events. We recorded field notes to capture the setting of the event, the complement of organisers and attendees, the purpose, structure, interactions and interfaces with other activities. Field notes included critical reflection to aid exploration of issues in team discussions and for consideration in subsequent observations or interviews (Phillippi and Lauderdale, 2018).

Online survey

We developed an online survey to further investigate participants' experiences of engagement. We used the modified SPIRIT framework (Mäkelä et al, 2024a) to structure the survey domains. The range of items included in the survey were informed by inductive analysis of the qualitative interviews. We piloted the survey with three individuals (with academic, professional services and policy backgrounds) and revised the survey with feedback received. Survey items asked for endorsements of statements as well as inviting respondents to expand through free text. The survey was distributed to individuals who had taken part in any of the intervention categories, enabling consensus-building by collecting data from the same overall group sampled for CAPE participant qualitative interviews. We used a strategy of sending follow-up reminders to enhance the response rate.

Ethical considerations

The evaluation study received a favourable opinion from the London School of Hygiene & Tropical Medicine Research Ethics Committee. If any participant refused to take part in an observed event, or if an event host did not consent, then the observation did not proceed.

Analysis

PM generated transcripts using Descript V64.1.1 and amended errors by checking the recordings. Anonymised data were imported into NVivo to assist with management of the large volume of data. We undertook qualitative analysis initially using a general inductive approach to condense the data and identify links between evaluation questions and findings (Thomas, 2006). These processes took place iteratively alongside

data generation and through discussions within the evaluation team, in workshops with PDG members, and with external audiences in conference presentations. We then used framework analysis (Gale et al, 2013), guided by the modified SPIRIT framework, to focus the analysis. We include anonymised quotations in the data reporting, to illustrate our analytic interpretations. The quotations are labelled with broad participant categories according to intervention type, to protect respondents' identities (Pascale et al, 2022).

Findings

We completed semi-structured interviews with 129 participants and undertook observations of 32 events (approximately 60 hours in total), and 42 participants completed the survey (27 per cent response rate, calculated as the number of individuals who completed the survey divided by the number of eligible sampled individuals, for whom an active email address was available). The essential characteristics of the CAPE intervention participants were mirrored by the sample of survey respondents: 17 (40.5 per cent) identified as researcher/academic, 5 (12 per cent) identified as HEI professional services staff, 17 (40.5 per cent) identified as policy professionals, and 3 (7 per cent) as 'other' or not specified. A breakdown of participants in each category of data collection is included in Table 2. The survey respondents were distributed across the CAPE intervention streams, except that none identified as a policy training workshop participant (these workshops were completed approximately 12 months before the survey was distributed). Of survey respondents, 86 per cent had previous experience in academic–policy engagement before the CAPE programme, while 14 per cent indicated that they had very little or no previous experience.

Outcomes from Capabilities in Academic Policy Engagement interventions

We commence with key findings relating to participants' perceptions of CAPE intervention outcomes, in terms of what the academic-policy engagement intervention achieved, and for whom. We use thematic headings derived from the modified SPIRIT framework 'outcomes' domain. We then consider findings relating to enabling conditions for academic-policy engagement.

Outcomes

CAPE led to an increase in engagement opportunities and activities, rather than outcomes benefitting larger society. The intensity of engagement varied from information–giving to consultation between policy professionals and academics, to collaboration that had scope for HEI and policy partners participants' shared decision-making. Changes attributed to engagement were most frequently identified at the individual level.

We found that the CAPE initiatives led to changes across the outcome categories from the SPIRIT-ME framework, as illustrated by survey data in Table 3. Most respondents felt that they could identify changes to skills, capabilities, relationships and understanding of an issue. From qualitative inductive analysis, we identified

Table 2: Distribution of interviews and observations in relation to CAPE workstreams

Stream	Interview participants	Observations	Survey
Policy fellowship			
- Incoming (policy to academia)	10	2	11
Policy fellowship			
- Outgoing (academia to policy)	11	3	12
Seed fund projects			
- Collaboration	13	3	9
- Challenge	5	0	3
Knowledge exchange			
- Range of activities and events	16	15	26
Training (policy)			
- Training workshops	15	4	0
- Toolkit-related	7	3	n/a
Training (academia)			
- Community of Practice for Knowledge Mobilisers in HEIs	7	2	8
- Other HEI training	3	0	0
General CAPE		n/a	n/a
- Delivery group	15		
- Policy stakeholders	14		
- Follow-on interviews in final year	17		
Other involvement in CAPE not fitting the above categories	0	0	14

Note: Participants may have taken part in more than one stream.

Table 3: Survey respondents' experiences of engagement outcome types

Outcome type	Description	Survey respondents n (%) (total n=42)
Capacity-building	Changes to skills and capabilities	29 (71%)
Connectivity	Changes in relationships and/or trust	27 (66%)
Conceptual	Changes in understanding or how to think about an issue	26 (63%)
Tactical	Persuading others to a point of view or course of action	23 (56%)
Culture or attitude change	A shift in views about engagement	19 (46%)
Instrumental	Informing the content or direction of a decision or policy	17 (41%)
Imposed	Meeting requirements of employing organisation	6 (15%)

additional outcome categories of (i) tacit knowledge exchange and (ii) diversity and inclusion in engagement, described in what follows. We did not identify long-term substantive changes at organisational or system levels that were directly attributable to CAPE.

The illustrative findings that follow are organised by categories of outcome that derive from the modified SPIRIT framework.

Capacity-building (changes to skills and capabilities)

Capacity-building refers to developing structures and resources for potential engagement. This domain includes capacity as the potential to achieve engagement, and capabilities as the knowledge, skills and abilities to actually engage. Building capabilities may enable expansion of capacity, at organisational and individual levels. Across the CAPE intervention types, participants described increased awareness of the potential for engagement to create alignment between research endeavours and policy needs. HEI staff and policy professionals identified skills development as an outcome of their CAPE participation, linked to enhanced perceptions of value in the work of engagement, and increased confidence in undertaking it within their professional roles.

> Success is really developing the academic and policy engagement skillset, which is quite rare and quite unique. In my view, it's becoming more valuable. (Policy Fellow outgoing from HEI 01)

> I would never have thought of myself as a knowledge exchange professional, it's just … part of what I do. But that in itself shows you how little I've thought about skills development, so [my CAPE activity] is filling a gap for me. (Knowledge Exchange Policy participant 01)

Policy professionals and academics valued development of collaborative skills in policy-related research, particularly through the collaborative seed fund model. Some participants considered that enhancing policy professionals' capabilities in evidence use could increase their capacity to meet policy needs directly, without needing to focus on increasing their engagement skills:

> Just how critical is academic engagement for things that might just benefit from a little bit more internal capacity development [for policy professionals]? (CAPE Delivery role 01)

Connectivity (changes in relationships and/or trust)

Connectivity refers to changes to the number and quality of relationships for engagement. Participants in policy fellowships and knowledge exchange activities identified connectivity outcomes through building new contacts or developing an enhanced sense of community. Serial events over time were considered useful for relationship-building and were valued in moving beyond expectations for an instrumental application of research evidence.

> It was about developing relations of trust and reciprocity by sharing a common endeavour, irrespective of what academic knowledge was produced and disseminated. (Knowledge Exchange Academic participant 01)

> Everyone exchanged email addresses, so people were making contacts they hadn't made before, which seemed like a really positive thing to do. So that's a success in its own right, creating new connections by bringing people together. (Knowledge Exchange Policy participant 02)

Academics expressed a desire to shift away from institutional expectations that their research would result in instrumental outcomes. For example, they valued the CAPE seed fund opportunities for connectivity outcomes. Academics and policy professionals with pre-existing relationships described processes of deeper interactions through collaborative seed fund projects, enabling increased trust and strengthening of existing partnerships:

> We were collaborating with that policy body before, but they were more like a knowledge-taker, so they would kind of say, "This is what we're working on … can you tell me more about it", and then sometimes just take it away and turn it into a policy briefing. (Seed Fund Academic participant 01)

Connectivity also related to the quality of integrated working, when participants perceived they had developed some new bridging of different 'languages', distributions of energy, priorities and shared interests between academic and policy partners.

Conceptual (changes in understanding or how to think about an issue)

Participants identified conceptual changes as outcomes from their CAPE participation, as changes to knowledge or ways of understanding. Across each intervention type, participants valued an ethos of mutual learning between academic and policy representatives, which could lay the groundwork for new framings of problems. Policy professionals undertaking CAPE policy fellowships particularly valued conceptual shifts gained through their HEI engagement activities, which could expand how they thought about policy problems. They identified the relationship broker role of the CAPE coordinators as a crucial factor, by arranging engagement with a range of academics for the policy fellow conversations. These connections were based on the initial policy questions the fellows had provided.

> [F]inding people who are slightly sideways, they're looking at a similar issue through different lenses. I think that's worked really well, provided the policy makers have a degree of clarity about what they want out of it. (CAPE Delivery role 02)

> The conversations [with a range of academics] were very mind-expanding. I didn't expect to talk about Foucault as part of these sessions! (Policy Fellow incoming from Policy 01)

For others, the incoming policy fellowship model (involving a series of meetings with academics across CAPE HEIs) did not seem to allow sufficient depth of engagement to achieve meaningful conceptual shifts around policy questions, when they experienced rapid, transactional exchanges with academics. 'It's almost like speed-dating academics. So that helps just give you a ton more ideas, but it doesn't necessarily help you to really deeply think through the problem much' (Policy Fellow incoming from Policy 03). Conceptual shifts were not limited to a unidirectional flow from research producers to users. Processes for sharing expertise and insights could expand researchers' understandings of policy relevance, as an additional conceptual outcome.

Tactical (persuading others to a point of view or course of action)

Tactical outcomes were those where engagement played a symbolic purpose. Occasionally, engagement was considered as an action taken for its own sake, within policy decision-making processes: 'It was just good to be able to say that we have spoken to a range of experts' (Knowledge Exchange Policy host 01). Academics also described tactical outcomes that could help them to refine their research focus, enable an onward pathway beyond CAPE, or provide a means to highlight 'real world' applicability of their research: 'The [CAPE project] budget keeps us focused. It's not rigorously enough done to get into a top-level double-blind peer reviewed journal, but it's good enough to get started' (Seed Fund Academic participant 02).

Academics also described non-use of research as a tactical outcome that some perceived to be of value to their policy partners. Tactical non-use depended on having previously developed an underlying trust, within longer-term partnerships.

> We've done projects, for example with government, who then go, 'Thank you very much, but we are never publishing that'. That can be what working with policy makers looks like. If they're looking for an evidence base, it doesn't mean they want anybody else to see it. (Seed Fund Academic participant 03)

> Quite often the answers to some of these research questions can make life difficult for those of us in my position who are managing competing political, economic and social demands. … You have to have a relationship where you can have that discussion. (Seed Fund Policy participant 01)

Culture or attitude change (a shift in views about engagement)

Culture or attitude shifts relating to academic-policy engagement were recognised at individual, team or department levels. Shifts in policy professionals' views on seeking out a broader range of perspectives were described, particularly by those undertaking policy fellowships and training workshops: 'I actually think there is something about changing the culture of thinking in the team and supporting diversity of thought' (Training – Policy participant 02). For outgoing policy fellows (HEI staff in policy settings), the creation of shifts in policy partners' approaches to engagement was seen as a valuable outcome from their CAPE activities. However, concerns were raised by outgoing policy fellows, and by policy professionals who were hosting them, over how this type of outcome might be recognised and sustained, particularly with

10

frequent staff turnover in policy settings. Academics also considered how CAPE involvement might contribute to shifts in HEI organisational–level recognition of policy engagement.

> If I could walk away with any slight shift in policy professional mindset towards working with academics, I think I would see that as a success, though probably quite an intangible and hard to measure one. (Policy Fellow outgoing from HEI 02)

> We were always fighting against a narrative that was quite suspicious of policy engagement and policy impact. And I think that's where the CAPE Project has been really useful. I think it's catalysed a different viewpoint within the university. (Seed Fund Academic participant 04)

Instrumental evidence use (informing the content or direction of a decision or policy)

Instrumental application of academic knowledge or research to policy problems (to achieve changes to decisions, actions or policies) was a desired outcome that was particularly emphasised by policy professionals undertaking CAPE fellowships and training, and by some academics and policy professionals in collective knowledge exchange events. Participants talked about aspirations for policy impacts that might result from their CAPE engagement activities, rather than providing specific examples of this having occurred. Instrumental outcomes were understood in relation to policy participants' everyday tasks and immediate ways of working to address policy goals.

> The most helpful part was where we directly applied what we were learning [in the CAPE training] to our project that we're working on at the moment. (Training – Policy participant 03)

> Following my fellowship, I would like to have brought in new evidence to the department and have that inform ministers, to make better choices. (Policy Fellow incoming from Policy 02)

Typically, participants felt there was a need for passage of time before it would be possible to identify instrumental outcomes from engagement informing policy needs.

> The significance [of Knowledge Exchange outcomes], we won't know for a while because there's still a long way to go before something which resets the strategy actually results in changes in behaviour and changes in investment priorities. (Knowledge Exchange Policy participant 03)

The type of policy need also affected participants' perceptions of how engagement activities might lead to instrumental outcomes. Interventions requiring a longer set–up phase, such as seed fund projects and fellowships, were considered unsuitable for rapid response policy needs: 'I would definitely say that's something still to be worked on: how do we engage in real-time, high stakes policy making?' (CAPE

Delivery role 03). However, HEI participants typically perceived that CAPE application processes were simpler and more efficient than they had generally experienced in other funding schemes, where HEI processes became a limiting factor in developing responsive projects.

Imposed requirement for engagement (meeting requirements of employing organisation)

A small number of HEI and policy participants identified that the outcome of their engagement was the fulfilment of an imposed requirement; that is, they had taken part because they deemed it necessary within their professional role or because their organisation required it. More typically, HEI participants expressed perceptions that policy engagement was a less valued activity than the production of 'traditional' academic outputs: 'The incentive systems of academia are such that often doing this kind of training or participating in this kind of engagement work isn't quite incentivised' (CAPE Delivery role 04).

Additional outcomes were identified in the qualitative analysis, which complement those explored through the modified SPIRIT framework-guided analysis. These were (i) tacit knowledge exchange and (ii) diversity and inclusion in engagement.

Tacit knowledge-exchange (sharing personal and context-specific knowledge)

HEI and policy participants described the value of knowledge gained from their exchanges of experience, expertise, skills and insights, through dialogue and social interaction in their CAPE engagement activities, that is, tacit knowledge exchange. This type of knowledge is distinct from research data and information, and moves beyond the conceptual outcome category described earlier.

Tacit knowledge exchange was particularly identified where participants had experienced sustained forms of engagement that required flexibility within partnerships over time: in collaborative seed fund projects, in outgoing policy fellowships where HEI staff were based in policy settings, and in longitudinal knowledge exchange series of activities.

> It's the insight that I'm getting about how the [policy] department works, how policy is made, how decisions are made, how they kind of come to conclusions about anything that they're trying to do. Those things have been so valuable. (Policy Fellow outgoing from HEI 03)

> The [CAPE fellowship] has enabled me to reconcile a lot of very disparate experiences so that I can sit more comfortably with making sense of things as they arise. I have a range of languages to interpret what's happening around me. (Policy Fellow outgoing from HEI 04)

HEI and policy participants who were more experienced in engagement described their intentions to amplify their new tacit knowledge by finding ways to embed it in team or departmental ways of working, and by sharing with colleagues who had not taken part in the CAPE programme.

Diversity and inclusion in engagement

Where 'productive dependencies' already existed within academic–policy partnerships (Borst et al, 2022: 8), CAPE enabled extensions of activities and may have reinforced the inclusion of some types of people and of some forms of knowledge. Forms of preferential support could be driven by cumulative advantages for certain applicants in funding allocation processes, for example: 'Seed fund proposals tended to be viewed favourably if they linked up with other strands of CAPE work, for example if a CAPE policy fellow applied for the fund, or if the collaboration included an existing CAPE policy partner' (Funding Panel Observation). CAPE coordinators could enhance the diversity and types of knowledge used in academic–policy engagement, by disseminating opportunities to take account of diverse perspectives and by capturing data to inform support for underrepresented groups. To achieve this outcome, there was a need for sufficient time and adequate resourcing, including monitoring for unanticipated consequences from efforts to diversify engagement.

> Doing something as quickly as we can is going to result in an opportunity which is not as inclusive as it could be, so actually causing more problems because we're going to people who have got experience, who we've seen operate in a room before, who we know can talk in the language that policy professionals are going to be receptive to. (CAPE Delivery role 05)

> One academic was very suspicious, very mistrustful, didn't want to engage. And it turned out that he had good reason, in terms of a previous unpleasant experience. When we're asking these academics to have a public platform, you know that a lot of people aren't comfortable with that, particularly from marginalised groups. (CAPE Delivery role 06)

Enabling conditions

Enabling conditions for academic–policy engagement were identified through analysis using the framework domains of catalysts, capacity and engagement actions. We found influencing factors at the level of individuals (for example, their prior experience of engagement), the organisation (for example, the organisational value placed on engagement) and at system levels (for example, overlapping initiatives with potential for duplication of efforts).

The modified SPIRIT framework brings attention to the role of catalysts, which act as prompts for engagement. HEI and policy participants described the opportunities of access to funding (for fellowships and seed fund projects) as prompts to engage, as well as access to engagement fora that may not have been accessible to them otherwise (for training and knowledge exchange activities). Academics perceived that available funding could make the crucial difference in gaining a policy partner's interest in collaborating with them. These opportunities to engage were viewed in the context of individuals' motivations (such as personal career advancement, or ways to make a difference in society), or by identification of needs that could be addressed through the engagement opportunity (such as filling knowledge and skills gaps): 'If a local authority was thinking, "We are really keen to do this project, but we've got absolutely no idea of how we would go about

measuring that", potentially there could be a pairing with a university' (Policy Fellow outgoing from HEI 05).

HEI and policy participants varied in terms of their background experience and capabilities in academic–policy engagement, and in the degree of flexibility permitted for this work within their usual role. These factors shaped the degree of support they felt they needed to initiate, sustain and succeed in engagement. At the institutional level, participants frequently identified a need to persevere while waiting for the bureaucratic processes that were necessary for them to undertake CAPE engagement work.

> The struggle really is for universities to interact with projects that are responsive and time limited. It's a really alien thing for a university to deal with. They get it stuck in their mouth and start chewing and it starts sticking. They can't quite deal with something that is quite fleet of foot. (Seed Fund Academic participant 04)

Sustained engagement and relationship-building required flexible use of individuals' time and a responsive, accommodating organisation, for participants to engage in ways that enabled them to move towards the valued outcomes described earlier.

At the system level, an influencing factor for engagement related to the need for navigation between similar initiatives within the broader academic–policy engagement landscape, which many participants perceived to be expanding. Some HEI and policy participants expressed frustration at apparent duplications or overlaps between CAPE and non-CAPE activities to which they had dedicated time:

> I feel it could be done more systematically because I feel we attend different forums and repeat the same things. There needs to be some coordination, so that efforts are not duplicated, and things are a bit more streamlined between all of the different bodies. That would be useful. (Policy Host for outgoing Policy Fellow 01)

Discussion

The CAPE interventions led to engagement outcomes around capacity-building, connectivity, conceptual change, tactical use, tacit knowledge exchange and development, and attitude change. These outcomes are related to an increase in individual skills and perceptions, rather than impact on policy processes or societal outcomes. Evaluations of other programmes that intend to maximise the impact of research have similarly found increased levels of activities that developed skills, awareness and capacity-building (Perspective Economics, 2024). The difficulties in demonstrating policy impacts are well established (Boswell and Smith, 2017; Oliver et al, 2022) and necessitate a cohesive strategy to evidence the impact and added value from these large-scale investments.

CAPE delivered predominantly linear initiatives (training) and relational interventions (fellowships, knowledge exchange activities, and seed funding), which reacted to emerging policy engagement opportunities rather than taking a coordinated or strategic approach. The most consistently well-received intervention was the collaborative seed fund for progressing academic–policy relationships, enabling shared learning, and for tacit knowledge exchange. This finding aligns

with relational knowledge-to-action models, where knowledge derives from multiple sources and its use depends on effective relationships and collaboration (Best and Holmes, 2010).

System-level strategies undertaken by the CAPE delivery group included finding ways to reduce the burden of transaction costs of the interventions (for example, for academic policy fellowship contract processes), and in managing and sustaining relationships and processes with policy partners. To be considered effective systems-levels interventions, these strategies would complement existing activities, work towards a coordinated and agreed set of outcomes, and generate outcomes such as reduced duplication and waste, which would be monitored at a systems level (Best and Holmes, 2010).

CAPE sought to build its reputation and gain legitimacy, capitalising on existing activities and partnerships, while working with experienced engagement practitioners. While this approach enabled reaction to opportunity, it proved incompatible with strategic responses to policy needs that could simultaneously uphold other programme objectives. As with many other programmes designed to support academic-policy engagement, CAPE had ambitious aspirations (captured in the Theory of Change, https://www.cape.ac.uk/theory-of-change/). These were: (i) improving knowledge of what works in academic-policy engagement by enabling comparison between types of initiatives; (ii) improving structures and systems by generating systems-levels outcomes; and (iii) creating a more diverse and inclusive academic-policy landscape. Although CAPE increased (and benefited from a general rise in) awareness about academic-policy engagement, it was not designed to enable clear conclusions about what types of engagement activities deliver specific engagement impacts. Setting realistic goals, and taking a strategic approach, would put academic-policy engagement programmes in a better position to achieve impact relating to complex systemic challenges such as how to blend inclusive practice with policy responsiveness (Turnhout, 2019), and how to achieve equitable commitment to engagement and distribution of benefits (Oancea et al, 2024). The opportunity-driven approach instead generated a large volume of activity but maintained (and potentially exacerbated) existing power relations.

The issue of how early career researchers manage academic-policy engagement is rarely addressed in literature (Weakley and Waite, 2023). We highlight the risk of a 'success to the successful' feedback loop (Meadows, 2008: 126), if those who are already experienced in academic-policy engagement are included or prioritised, without attention and resource to target and support underrepresented groups (Smith and Stewart, 2017). Support strategies, time, training and resources are needed to ensure fair opportunities for engagement (for example, for gender, career stage, geographic location or disciplinary area). Variations in organisational priorities, structures and supports, and in individuals' experience, motivations and capabilities, emphasise the need for multi-component approaches to academic-policy engagement and its facilitation.

The impact agenda in HEIs focuses almost exclusively on instrumental use of academic outputs as a product through which to achieve direct change, with some recognition of the potential for conceptual applications in informing approaches to a policy problem (Smith and Stewart, 2017). Academics valued the CAPE seed fund collaborative opportunities, in creating a move towards an outcome of connectivity and conceptual change with policy partners, instead of necessarily leading to instrumental outcomes. Ozanne et al (2017) similarly highlight the capacity-building and connectivity benefits from relational engagement that depends upon a shared

vision and goals, while Wye et al propose a need for a focus on sharing of expertise instead of sharing of evidence, within impact models (2019). Academics frequently expressed a need for a shift away from organisational expectations that their research would have demonstrable instrumental outcomes in a finite timeline and echoed concerns that sustained engagement with policy makers 'may not be compatible with career advancement in academia' (French, 2019: 151).

We identified tacit knowledge exchange as an additional outcome type, which extends those identified through the SPIRIT-ME framework analysis. Participants valued opportunities for mutual 'learning while doing', when sharing the know-how required to put research evidence to use practically (Van Den Driessen Mareeuw et al, 2015). Tacit knowledge has a personal quality, making it hard to verbalise, and may be acquired through informal discussions about action (Polanyi, 1962). CAPE's collaborative seed fund projects may have enabled the sustained interaction needed for tacit knowledge exchange and development of 'inter-cultural competences' to a greater degree than the other CAPE intervention types (Wye et al, 2019: 277).

Our analysis highlights organisational and departmental culture, capacity, capabilities and support as facilitators for engagement. Previous research has identified the need for proactive, strategic support at the organisational level, encompassing tangible factors such as resources available for capacity-building, and less tangible factors such as cultural alignment with evidence-informed policy intentions, learning and adaptation (Calnan and McHugh, 2023; Pabari and Goldman, 2023). An enabling organisational environment includes the norms and values that influence priorities and ways of working regarding academic policy engagement, which can impact on capacity at the individual and departmental levels.

The analysis has informed modifications to the SPIRIT-ME framework for evaluation of academic-policy engagement (Mäkelä et al, 2024a), demonstrating the application of an action framework to guide knowledge development (Redman et al, 2015). Figure 1 shows the additional framework modifications: (i) the addition of 'capabilities' to the original SPIRIT capacity domain (where

Figure 1: Modified SPIRIT-ME framework with new additions indicated by asterisks
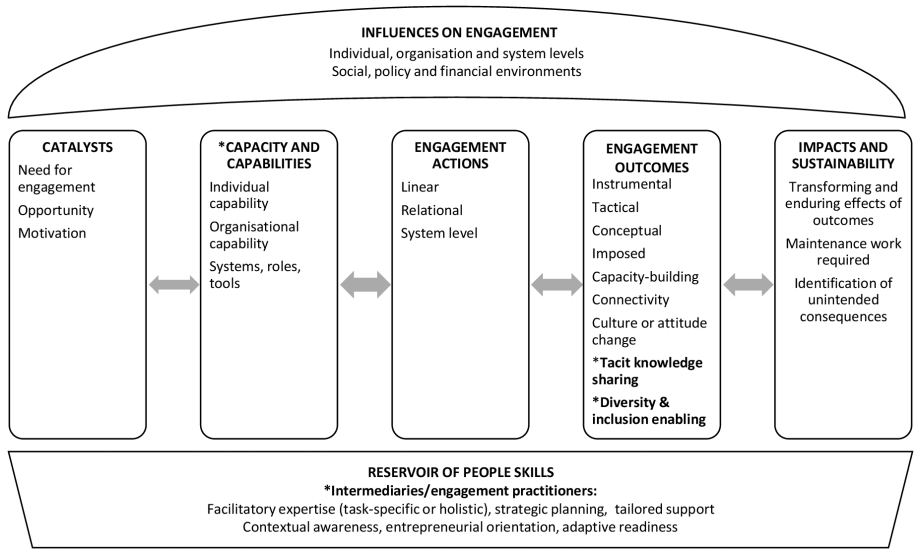
capacity is the potential to achieve engagement, and capabilities are the knowledge, skills and abilities to actually engage); (ii) additions in the outcomes domain of tacit knowledge exchange, and diversity and inclusion in engagement; and (iii) clarification that the 'reservoir of people skills' refers to the skills of intermediaries and engagement practitioners. In contrast to the original SPIRIT framework's emphasis on a 'reservoir of relevant and reliable research', this modification moves the emphasis to the sharing of expertise, instead of research evidence. The CAPE coordinators and delivery group members ('intermediaries') employed diverse skills as linkage agents, capacity builders and relationship brokers (Wye et al, 2019). The analysis revealed ways that the CAPE participants ('engagement practitioners') also brokered relationships within engagement activities, interweaving forms of expertise and knowledge.

Strengths and limitations

Conducting complex data collection alongside the delivery of multiple workstreams and sites meant we were able to explore immediate experiences of CAPE interventions and their facilitation, as they unfolded. Inclusion of participants who were near the end of their CAPE activity, or had recently completed it, enabled exploration of their perceptions of follow-through beyond the CAPE-funded activity. The evaluation was set up to capture processes and outcomes, however the CAPE programme delivery was not designed in a way that would enable comparison between types of initiatives in terms of their ability to produce different outcomes and impacts.

As evaluation participants were receiving funding through the CAPE programme, it is possible that they may have felt uncomfortable in fully sharing their experiences due to social desirability bias (Bergen and Labonté, 2020). We spent time explaining the independence of the evaluation study from the CAPE programme, and that we would ensure anonymity and confidentiality.

Conclusions

Our study adds to the limited literature evaluating academic–policy engagement initiatives, by exploring perspectives and experiences of HEI staff, policy professionals and delivery group members, in the national CAPE programme in England.

The CAPE resource predominantly supported maximising delivery of interventions to address policy needs in reactive ways. This opportunity-driven approach could not accommodate design, implementation and reflective monitoring of strategic responses to policy needs. It also precluded an equitable approach to engagement, by maintaining existing power relations.

The interventions focused at the linear (training) or relational (fellowships, seed funding and knowledge exchange) levels, as opposed to more systemic changes (Best and Holmes, 2010). While CAPE drove an increase in activities, it also capitalised on other initiatives within the broader academic–policy engagement landscape, for example the UK government's Areas of Research Interest (Boaz and Oliver, 2023). These created a fertile environment which supported CAPE's work and contributed to the same outcomes.

The choice of academic–policy engagement intervention model should take account of motivations, capabilities, goals and resources at the individual and organisation level. Direct outcomes of CAPE activities were enhanced capacities and capabilities in engagement, improved connectivity and quality of partnerships, conceptual shifts as changes in framings of problems, new tacit knowledge development, and attitude shifts towards recognition of engagement. Participants described these as potential precursors of policy and societal impacts. Investment is required to track longer-term impacts, while also capturing costs of academic–policy engagement initiatives, to inform decisions about activity selection and value for money.

Development of intervention and evaluation strategies at the system level will require strategic planning, coordination and adaptation with existing structures and platforms. Facilitation of engagement requires time, resources and skills that encompass inclusion of diverse people and forms of knowledge, while monitoring for achievement of desired outcomes, longer-term impacts and for unanticipated consequences. We have demonstrated the value of (re)modifying an existing framework to guide the evaluation of academic–policy engagement interventions and to identify influencing factors.

ORCiD IDs
Petra Mäkelä https://orcid.org/0000-0002-0938-1175
Annette Boaz https://orcid.org/0000-0003-0557-1294
Kathryn Oliver https://orcid.org/0000-0002-4326-5258

Contributor statement
PM wrote the first and subsequent drafts of the manuscript, with comments from KO and AB. KO and AB conceptualised the study. KO, AB and PM designed the study. PM conducted data analysis, with contributions from KO and AB. PM, KO and AB conducted data interpretation.

Data availability statement
Data cannot be shared due to the risk of participant re-identification. However, research materials are available at: https://doi.org/10.25398/rd.northumbria.27951654.v1.

Research ethics statement
The CAPE evaluation study received a favourable opinion from the London School of Hygiene & Tropical Medicine Research Ethics Committee on 30.09.21 (reference 26347).

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

References

Bergen, N. and Labonté, R. (2020) 'Everything is perfect, and we have no problems': detecting and limiting social desirability bias in qualitative research, *Qualitative Health Research*, 30(5): 783–92, doi: 10.1177/1049732319889354

Best, A. and Holmes, B. (2010) Systems thinking, knowledge and action: towards better models and methods, *Evidence & Policy: A Journal of Research, Debate and Practice*, 6(2): 145–59, doi: 10.1332/174426410x502284

Boaz, A. and Oliver, K. (2023) How well do the UK government's 'areas of research interest' work as boundary objects to facilitate the use of research in policymaking?, *Policy & Politics*, 51(2): 314–33, doi: 10.1332/030557321x16748269360624

Bogenschneider, K. and Corbett, T. (2021) *Evidence-Based Policymaking: Envisioning a New Era of Theory, Research, and Practice*, Routledge.

Borst, R.A.J., Wehrens, R., Bal, R. and Kok, M.A. (2022) From sustainability to sustaining work: what do actors do to sustain knowledge translation platforms?, *Social Science & Medicine*, 296: 114735, doi: 10.1016/j.socscimed.2022.114735

Boswell, C. and Smith, K. (2017) Rethinking policy 'impact': four models of research–policy relations, *Palgrave Communications*, 3(1): 1–10, doi: 10.1057/s41599-017-0042-z

Calnan, S. and McHugh, S. (2023) Experiences and perceptions of evidence use among senior health service decision makers in Ireland: a qualitative study, *Evidence & Policy*, 20(2): 163–83, doi: 10.1332/174426421x16917571241005

Compagnucci, L. and Spigarelli, F. (2020) The third mission of the university: a systematic literature review on potentials and constraints, *Technological Forecasting and Social Change*, 161: 120284, doi: 10.1016/j.techfore.2020.120284

Durrant, H. and MacKillop, E. (2022) University policy engagement bodies in the UK and the variable meanings of and approaches to impact, *Research Evaluation*, rvac015, doi: 10.1093/reseval/rvac015

French, R.D. (2019) Is it time to give up on evidence-based policy? Four answers, *Policy & Politics*, 47(1): 151–68, doi: 10.1332/030557318x15333033508220

Gade, C. (2023) When is it justified to claim that a practice or policy is evidence-based? Reflections on evidence and preferences, *Evidence & Policy*, 1(aop): 1–10, doi: 10.1332/174426421x16905606522863

Gale, N.K., Heath, G., Cameron, E., Rashid, S. and Redwood, S. (2013) Using the framework method for the analysis of qualitative data in multi-disciplinary health research, *BMC Medical Research Methodology*, 13: 117, doi: 10.1186/1471-2288-13-117

Henig, J.R. (2008) *Spin Cycle: How Research Gets Used in Policy Debates – The Case of Charter Schools*, Russell Sage Foundation, https://books.google.co.uk/books?hl=en&lr=&id=2-uFAwAAQBAJ&oi=fnd&pg=PR5&dq=how+research+is+used+in+schools+policy+henig&ots=3l0pvhTXw9&sig=bkVsJfRfoSGO6rqJRSbiJXL9bt0.

Kuchenmüller, T., Boeira, L., Oliver, S., Moat, K., El-Jardali, F., Barreto, J., et al (2022) Domains and processes for institutionalizing evidence-informed health policy-making: a critical interpretive synthesis, *Health Research Policy and Systems*, 20(1): 27, doi: 10.1186/s12961-022-00820-7

Lavis, J.N., Lomas, J., Hamid, M. and Sewankambo, N.K. (2006) Assessing country-level efforts to link research to action, *Bulletin of the World Health Organization*, 84(8): 620–8, doi: 10.2471/blt.06.030312

Liu, F. and Maitlis, S. (2010) Non-participant observation, in *Encyclopedia of Case Study Research*, SAGE Publications, pp 610–12.

Mäkelä, P., Boaz, A. and Oliver, K. (2024a) A modified action framework to develop and evaluate academic-policy engagement interventions, *Implementation Science*, 19(1): 31, doi: 10.1186/s13012-024-01359-7

Mäkelä, P., Oliver, K. and Boaz, A. (2024b) *CAPE Evaluation Final Report*, https://transforming-evidence.org/storage/cape-evaluation-report-170724-final.pdf.

Meadows, D.H. (2008) *Thinking in Systems: A Primer*, Chelsea Green Publishing, https://books.google.co.uk/books?hl=en&lr=&id=CpbLAgAAQBAJ&oi=fnd&pg=PR9&dq=thinking+in+systems&ots=LBl9s5rGTZ&sig=QXGF5ZG_-0geIx4b__rIlvmLSFU.

Oancea, A., Marshall-Brown, A., Scott-Barrett, J., Cai, W., Kamphausen, L., McLeod, C. et al (2024) The Responsible Knowledge Exchange, Engagement and Impact (RKEEI) framework and principles, https://www.socsci.ox.ac.uk/sitefiles/rkeei-framework-principles.pdf.

O'Brien, B.C., Harris, I.B., Beckman, T.J., Reed, D.A. and Cook, D.A. (2014) Standards for reporting qualitative research: a synthesis of recommendations, *Academic Medicine*, 89(9): 1245, doi: 10.1097/ACM.0000000000000388

Oliver, K. and Boaz, A. (2019) Transforming evidence for policy and practice: creating space for new conversations, *Palgrave Communications*, 5(1): 1–10, doi: 10.1057/s41599-019-0266-1

Oliver, K., Hopkins, A., Boaz, A., Guillot-Wright, S. and Cairney, P. (2022) What works to promote research-policy engagement?, *Evidence & Policy*, 18(4): 691–713, doi: 10.1332/174426421x16420918447616

Ozanne, J.L., Davis, B., Murray, J.B., Grier, S., Benmechaddal, A., Downey, H., et al (2017) Assessing the societal impact of research: the relational engagement approach, *Journal of Public Policy & Marketing*, 36(1): 1–14, doi: 10.1509/jppm.14.121

Pabari, M. and Goldman, I. (2023) The role of monitoring, evaluation, and research units in an increasingly turbulent world, *Revista Brasileira de Avaliação*, 12(1): e120523, doi: 10.4322/rbaval202312005

Palinkas, L.A., Horwitz, S.M., Green, C.A., Wisdom, J.P., Duan, N. and Hoagwood, K. (2015) Purposeful sampling for qualitative data collection and analysis in mixed method implementation research, *Administration and Policy in Mental Health*, 42(5): 533–44, doi: 10.1007/s10488-013-0528–y

Pascale, J., Lineback, J.F., Bates, N. and Beatty, P. (2022) Protecting the identity of participants in qualitative research, *Journal of Survey Statistics and Methodology*, 10(3): 549–67, doi: 10.1093/jssam/smab048

Patton, M.Q. (2015) *Qualitative Research & Evaluation Methods*, 4th edn, SAGE Publications.

Perspective Economics (2024) A review of evidence relating to impact of ESRC's impact acceleration accounts (IAAs) programme, https://www.ukri.org/wp-content/uploads/2024/11/ESRC-071124-ReviewEvidenceRelatingImpactESRCsImpactAccelerationAccountsProgramme-FinalReport.pdf.

Phillippi, J. and Lauderdale, J. (2018) A guide to field notes for qualitative research: context and conversation, *Qualitative Health Research*, 28(3): 381–8, doi: 10.1177/1049732317697102

Polanyi, M. (1962) Tacit knowing: its bearing on some problems of philosophy, *Reviews of Modern Physics*, 34(4): 601–16, doi: 10.1103/revmodphys.34.601

Redman, S., Turner, T., Davies, H., Williamson, A., Haynes, A., Brennan, S., et al (2015) The SPIRIT action framework: a structured approach to selecting and testing strategies to increase the use of research in policy, *Social Science & Medicine*, 136: 147–55, doi: 10.1016/j.socscimed.2015.05.009

Smith, K.E. and Stewart, E. (2017) We need to talk about impact: why social policy academics need to engage with the UK's research impact agenda, *Journal of Social Policy*, 46(1): 109–27, doi: 10.1017/s0047279416000283

Smith, K.E., Bandola-Gill, J., Meer, N., et al (2020) *The Impact Agenda: Controversies, Consequences and Challenges*, Policy Press, https://bristoluniversitypressdigital.com/abstract/book/9781447339861/9781447339861.xml.

Thomas, D.R. (2006) A general inductive approach for analyzing qualitative evaluation data, *American Journal of Evaluation*, 27(2): 237–46, doi: 10.1177/1098214005283748

Turnhout, E. (2019) Environmental experts at the science–policy–society interface, in E. Turnhout, W. Tuinstra and W. Halffman (eds) *Environmental Expertise: Connecting Science, Policy, and Society*, Cambridge University Press, pp 222–33.

Van Den Driessen Mareeuw, F., Vaandrager, L., Klerkx, L., Naaldenberg, J. and Koelen, M. (2015) Beyond bridging the know-do gap: a qualitative study of systemic interaction to foster knowledge exchange in the public health sector in The Netherlands, *BMC Public Health*, 15(1): 922, doi: 10.1186/s12889-015-2271-7

Weakley, S. and Waite, D. (2023) Academic knowledge brokering in local policy spaces: negotiating and implementing dynamic idea types, *Evidence & Policy*, 19(3): 342–59.

Weiss, C.H. (2021) The many meanings of research utilization, in *Social Science and Social Policy*, Routledge, pp 31–40, https://www.taylorfrancis.com/chapters/edit/10.4324/9781003246299-3/many-meanings-research-utilization-carol-weiss.

Wye, L., Cramer, H., Carey, J., Anthwal, R., Rooney, J., Robinson, R., et al (2019) Knowledge brokers or relationship brokers? The role of an embedded knowledge mobilisation team, *Evidence & Policy*, 15(2): 277–92, doi: 10.1332/174426417x15123845516148