26. Which Knowledge, Unknowns and Aspects of Policy and Practice?

To examine the second question—‘What is the integrative applied research dealing with—that is, which knowledge is synthesised, unknowns considered and aspects of policy and practice targeted?’—each of the categories of concepts and methods, first introduced in Chapter 5, is reviewed in turn. Hence consideration is given to taking a systems view, scoping, boundary setting, framing, taking values into account, and harnessing and managing differences.

Taking a Systems View

In viewing the three domains together, there are two different systems to consider: the problem and the policy or practice arena. It is important to re-emphasise the key point made in earlier chapters that there is no practical way to focus on either the whole problem or the whole policy or practice arena at once, let alone both of them. Instead, different systems approaches highlight different aspects of the problem or the policy or practice arena.

In viewing I2S as a whole, a key issue is fitting together the various systems views used in each domain. The ability to mix and match different systems approaches to allow the problem to be understood and acted on more effectively requires understanding about the advantages and disadvantages of each systems methodology and how to choose among them. This is an underdeveloped area.

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<th>Tasks for the I2S Development Drive</th>
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<tr>
<td>Collect case examples illustrating ways to combine various systems approaches to the problem (which may differ for the knowledge synthesis and unknowns aspects) and the policy and practice arenas.</td>
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<tr>
<td>Work with systems experts to produce a guide for combining different systems approaches to the problem and the policy and practice arenas.</td>
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Scoping

Scoping involves considering the problem, and the relevant aspects of policy or practice, as broadly as possible. The aim is to make the problem and the policy or practice change central, and to move considerations beyond the limited expertise of those responsible for designing the research and research support.¹

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¹ This is particularly important when those who start the study are a small group with limited perspectives.
Disciplining Interdisciplinarity

This involves identifying

1. the range of systems approaches relevant to the problem and the policy or practice arenas
2. the full range of relevant disciplines and stakeholders, what they could contribute to understanding the problem and how those contributions could be made
3. which unknowns are germane, which expertise could be drawn on in considering them and how
4. the key actors and processes in each of the government, business and civil society arenas and the full array of options for providing integrated research support to them.

Scoping is applicable not only to each domain, but also to the overlaps between them. Thus, for example, scoping may need to take into account how previous policy or practice action on the problem was influenced by research, as well as how unknowns may have stymied change in the past.2

In essence, the challenge for I2S in scoping complex real-world problems is to help integrative applied research teams build on and move beyond the traditional literature review, which is the way problems are scoped within disciplines. The literature reviews of the relevant disciplines are the starting point, but need to be extended to identify and include relevant stakeholders and their perspectives. The expansion includes an examination of diverse unknowns and particular focus on areas that are contentious. It also encompasses the array of possibilities for providing integrated research support, any interventions that have been tried in the past and how successful they have been. The aim of the scoping is to provide an appreciation of the areas of greatest need for further investigation, management of unknowns and action.3

In considering I2S as a whole, an important element of the scoping process is to recognise the overlaps between the stakeholders in Domains 1 and 2 and the policy makers and practitioners in Domain 3. In other words, some of the stakeholders who have relevant knowledge to contribute to appreciating the problem and considering the unknowns are also often policy makers or practitioners whose task it is to make decisions about and to act on the problem. A chief implication for scoping is recognising that one may influence the other. In particular, the positions of policy maker or practitioner may shape or limit the ability to provide information or consider unknowns. For example, government policy makers

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2 This overlaps to some extent with big-picture context (see Chapter 28).
3 It can also help the integrative applied research team decide if they want to work within the broad understandings of the problem or if they want to challenge the way the problem is generally viewed by paying more attention to something society or previous researchers have marginalised or excluded.
may be restricted in their contributions by confidentiality requirements, and business and civil society practitioners by the desire to maintain competitive advantage.\textsuperscript{4}

The result of the scoping process is to lay out the possibilities for building the integrative applied research team, by identifying the full range of people who could contribute to the team’s work, the breadth of what they could bring to addressing the problem, as well as the options for engaging them.

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<th>Tasks for the I2S Development Drive</th>
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<tr>
<td>Gather together and develop useful concepts, methods and case examples for managing the vast amount of information that is inevitably involved when the three domains are combined.</td>
</tr>
<tr>
<td>Collect case examples to investigate the intersection between ‘stakeholders’ and ‘policy makers and practitioners’, especially limits on what is possible for scoping and how these can be overcome.</td>
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**Boundary Setting**

No research project on a complex real-world problem can encompass everything that is revealed to be relevant by the scoping process. Boundary setting will therefore occur, whether it is recognised or not. I2S aims to provide concepts and methods for a conscious and considered process of determining what is included and excluded, as well as what is central and what is marginal. This practical consideration involves figuring out what can best be done with the available resources of time, money and person power. Boundary setting therefore involves deciding

1. which systems approaches will be taken for the problem and the policy and/or practice arenas
2. which disciplines and stakeholders to include in the knowledge synthesis, what they will contribute to addressing the problem and how those contributions will be made
3. which unknowns will be considered, which expertise will be drawn on in those considerations and how
4. which policy and practice actors and processes in government, business and/or civil society are to be targeted, as well as through whom, how and when.

\textsuperscript{4} There may be other ways to obtain useful inputs—for example, by working with retirees who can raise the sorts of issues that current policy makers and practitioners would have in mind.
The process is actually much more iterative than this description might imply. Further, boundary setting also involves deciding how much weight to give to different sides when there are contentious issues.

As described in previous chapters, the task for scoping and boundary setting is to move those designing the research away from being driven only by what they know and have experience with, to focusing on the needs of the problem and expanding the integrative applied research team accordingly. The well-worn story of the drunk searching for his keys under a streetlight where he can see, even though he lost them in a dark alley, is pertinent here. The aim is to bring in people with torches to search in the dark alley. Combining scoping and boundary setting to make sure all the possibilities are on the table before decisions are made about what will be undertaken is aimed at maximising the relevance of the integrative applied research to the problem under consideration. A key aspect is to make the boundary-setting process systematic and explicit, so that it can be evaluated and improved in future.

Additional issues are raised when interactions across the three domains are considered. First, it is important to give approximately equal weight to each domain, even though the relevant levels of methodological sophistication may be different. For instance, this involves ensuring that critical unknowns are not sidelined simply because they are not well understood and are difficult to take action on. Second, teams must check that there is congruence in boundary setting between the domains. For example, if policy change was to be supported through an engaged partnership approach, it would be desirable for the collaboration to permeate other aspects of the integrative applied research, particularly setting boundaries around the disciplinary and stakeholder knowledge to be included, as well as which unknowns would be considered and how. On the other hand, care is required to make sure that the aim of congruence does not result in the boundaries being set too narrowly. For example, providing policy makers and practitioners only with what they ask for may miss critical relevant issues. In other words, the integrative applied research team should not be merely reactive, but should also alert policy makers and practitioners to important areas that may be new to them.

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<tr>
<td>Collate case examples relevant to interactions between the domains in boundary setting, such as: a) ensuring relatively equal coverage of each domain; b) congruence between how knowledge synthesis, unknowns and providing integrated research support were approached; and c) not allowing congruence to be too limiting, especially in restricting coverage of key aspects of the approach to the problem or the potential for change.</td>
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Framing

Framing involves deciding how to depict the integrative applied research on the major social or environmental issue. Descriptions automatically provide a frame regardless of whether this is done consciously. The aim here is to raise awareness of the importance of framing so that the team can accurately and succinctly capture the essence of the research and employ the power that language provides.

This is most critical for addressing controversy, which is an aspect of most complex real-world issues. The way the problem and the research results are framed is useful for communicating whether the integrative applied research team is taking a particular stand or seeking to situate itself above the fray. Because framing is so influential, it is important that the position of the integrative applied research vis-a-vis any controversies is conveyed accurately.5

There is currently little understanding of how to manage framing across the three domains—for example, when it is useful to have different frames and when they should be the same.

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<tr>
<td>Draw together case examples of the relationships between the frames used in the three domains—for example, when these were the same or different framings—as well as assessments of how well these worked.</td>
</tr>
<tr>
<td>Collect case examples of accurate and inaccurate framings for the position of integrative applied research teams on controversial issues.</td>
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</table>

Taking Values into Account

The systems approaches used, the way the problem and provision of integrated research support are scoped and the boundaries set and the framing employed will all be determined by and reflect the values brought to the research. A major task in the development of I2S is, therefore, providing effective ways of dealing with values. Considerations include the following.

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5 It is important to be clear that the integrative applied research team does not have to take an unequivocal position. It is fine for the team to say, for example, ‘we are worried, we have some relevant information, but we do not know how it fits’. The point is that framing is not just critical for advocacy, but is also about clear, concise communication about the approach to the problem and the research findings.
• Whether and when in the research process values should be made explicit; for example, should there be a proactive process or should it only occur in response to values conflict?
• Which values should be examined—for instance: values about the problem under consideration, research generally, the various disciplines and stakeholders, diverse unknowns or about the different implementation arenas?
• Whose values should be considered—for example: only the key players or everyone involved in the research?
• How should values be considered, specifically what reliable methods are there for doing so?

A key reason for dealing with values explicitly is to ensure that the research has integrity. One element of integrity is congruence in values across the three domains. For example, a research team cannot espouse liberal values about supporting policy action to aid the disadvantaged, while ignoring their perspectives in the knowledge synthesis and dealing with unknowns.

But there is also a broader issue about integrative applied research being true to itself and not becoming an uncritical handmaiden to policy makers and practitioners. While integrated research has an important role in supporting policy and practice change and doing so in a way that takes into account practical realities, such as the ‘beguiling’ art described by Peter Shergold (see Chapter 17), the research has to be guided by its own principles. It must be able to resist being seduced by the political power of government policy makers, the economic clout of business or the moral sway of civil society in order to continue providing essential critique of these arenas and helping to hold them accountable.6

This is an area that still requires considerable development, but Mark Moore’s articulation of the notion of ‘public value’ as the goal for policy making and practice change in the government realm provides a valuable starting point.7

Moore describes public value as government activity that ‘shields the country from foreign enemies, keeps the streets safe and clean, educates the children, and insulates citizens from many man-made and natural disasters that have impoverished the lives of previous human generations’.8

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6 This relates back to an issue raised in the section on boundary setting about the integrative applied research team not merely being reactive, but also alerting policy makers and practitioners to important areas that may be new to them. What the integrative applied research team deems to be essential in this regard will be driven by their values.
7 Moore (1995). The presentation of Moore’s argument here is simplified.
He sees government policy makers and public managers as ‘explorers commissioned by society to search for public value’. Consistent with Shergold’s remarks quoted in the opening of Chapter 17, Moore expects policy makers to use their initiative and imagination, but also to be responsive to political guidance and feedback. He argues that their ‘most important ethical responsibility is to undertake the search for public value conscientiously’. He suggests that this overcomes political corruption, especially ‘the triumph of special interests over the general’ and irrationalities, such as ‘shortsightedness, an unwillingness to make painful trade-offs, and an inability to deal appropriately with risk’.

If integrative applied research teams have the creation of public value firmly in their minds when supporting government policy makers, the temptations to compromise research integrity by supporting corrupt or irrational practices in order to gain additional research funding or some other research advantage can be minimised. Analogous considerations need to be brought to bear for integrated research support for business and civil society policy making and practice change.

### Tasks for the I2S Development Drive

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<tr>
<td>Compile case examples that illustrate different experiences of bringing values into play and their consequences for the integrative applied research.</td>
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<tr>
<td>Compile case examples examining congruence in values across the three domains, as well as assessing integrity. The latter includes gauging independence from government, business and civil society pressures, as well as commitment to the provision of ‘public value’.</td>
</tr>
<tr>
<td>Work with applied philosophers and other experts to produce a guide to concepts and methods for understanding and responding to the various dimensions of values.</td>
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### Harnessing and Managing Differences

The point of integrative applied research is to effectively harness a range of relevant differences to broaden both knowledge about a problem and consideration of diverse unknowns, as well as to bridge the know–do gap. Indeed members of the integrative applied research team, the stakeholders they interact with and the policy makers or practitioners they seek to support will differ on a wide range of perspectives, skills and characteristics; however, only

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some of these will be central to the aims of the integrative applied research and some either will be irrelevant or may even get in the way of achieving the main research aims. The challenge is therefore to distinguish between differences that are key to addressing the problem and to be harnessed, and those that are problematic and must be managed.

Let us begin with harnessing differences useful for addressing the problem. Team members and the stakeholders they interact with will have been chosen for such variability. In other words, they may have been picked because they have different, but valuable, access to various facts, visions about addressing the problem, world views (underlying assumptions) about the problem, methods skills, ways of understanding unknowns, skills in managing unknowns, and so on. There will also be differences to be harnessed between the researchers on the one hand and the policy makers or practitioners on the other. At the most basic level, the researchers understand the strengths and weaknesses of the integrated research, while policy makers and practitioners have a detailed appreciation of how to make the policy or practice change more likely to occur.

There will, however, be other differences between the research team members, the stakeholders and the policy makers and practitioners that do not contribute to the overall aims of the research. For example, while team members may have been chosen for their various methods skills, they may also have discrepant epistemologies that get in the way of the research aims. These are the sorts of differences that must be managed so that they do not interfere with the conduct of the research by generating unproductive conflict.

Another class of unproductive differences occurs on a personal scale, such as differences in personality, working style and other attributes. There is a broad sweep of knowledge about conflict resolution, establishing trust, team building and related issues that has been gained in business, community development and other areas, which is also relevant to managing differences in integrative

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12 For example, some may have a good understanding of probability, while others have an appreciation of distortion.

13 For example, quantitative and qualitative researchers may have different ways of knowing, but those responsible for the integrative applied research may wish it to be conducted within a single epistemology. Of course, in another context, the investigation may seek to harness different epistemologies and this would determine which researchers were chosen. Differences that are problematic in one research context may be the ones to be harnessed in another.

14 Unproductive conflict does not generate new thinking, but instead makes it hard for people to work together. More generally, conflict is not inevitably bad. It can be an important motivator, as well as stimulating new ideas. The challenge is to exploit the benefits of the energy and striving for excellence associated with conflict, especially in the form of competition, while maintaining mutual respect and minimising underhand behaviour and animosity.

15 For example: Gray (1989); Hackman (1990); Mandell (2001); Winer and Ray (1994).
applied research. The main problem is that this knowledge is not compiled in any single place. An outline of what such a resource would look like is presented in Box 26.1.

Box 26.1 Methods for Managing Personal Differences

Only a flavour of potentially useful ways of dealing with problematic differences can be given here. Some simple techniques can be surprisingly effective. Personality assessments (such as the Myers Briggs typology),a commonly used in team building, can dissolve conflict, as participants realise that the annoying behaviours of others are not designed to be provocative but simply reflect different psychological make-up and orientation to the world. Enhanced understanding can also ameliorate conflict arising from differences in cultural norms,b mental models,c emotional intelligence,d approaches to problems,e and team role skills.f Principled negotiation, which focuses on differences in interests, is an effective tool for much dispute resolution. It concentrates on creative problem solving and fair accommodation of diverse interests.g

Fostering reciprocity within the team can also be helpful in avoiding unproductive conflict. This has two aspects. First is the precept that partners treat each other as they wish to be treated. This provides a general foundation for satisfactory working relationships based on trust and respect, as well as laying the way to overcoming problems through principle-based negotiation, which seeks fair solutions. The second aspect is that rewards resulting from the collaboration are allocated across the partners in proportion to their contributions.

g. Fisher et al. (1991); Gray (1989); Ury (1993).

Examination of interactions and congruence involves determining

- to what extent the same differences are relevant across the domains
- whether similar strategies can be used to harness or manage them
- when differences to be harnessed in one domain require management in another (and vice versa).16

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16 For example, epistemological differences may be harnessed in synthesising knowledge and understanding and managing unknowns, but may need to be managed to provide effective integrated research support for policy and practice change.
Looking specifically at managing differences, it is not clear whether this should be done proactively, if it is better to wait until conflict arises or if a mixture of proactive and reactive responses provides the most satisfactory outcomes.

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<tr>
<td>Gather together case examples to: a) ascertain how the same differences play out across all three domains, b) examine how management strategies fare across the domains, and c) figure out when best to apply methods for managing differences (proactively or reactively).</td>
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**Dealing with the Six Categories**

Let me close this section by re-emphasising that the six categories of concepts and methods considered here—taking a systems view, scoping, boundary setting, framing, taking values into account, and harnessing and managing differences—cannot be dealt with in a linear, stepwise fashion when undertaking integrative applied research. Each affects the others, so that the elements must be considered in parallel, as well as iteratively. Iteration is often also required across the three domains.

Another issue that is implicit in all the considerations above is that there are no perfect approaches to the six categories. Choices must be made and judgment exercised in choosing a systems approach, scoping, setting boundaries, and so on, and each choice will have strengths and limitations. Imperfection is therefore not just an issue in understanding and managing unknowns, but permeates all integrative applied research. I return to this issue in Chapter 29.

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<th>Tasks for the I2S Development Drive</th>
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<tr>
<td>Compile case examples of how iteration occurred across the three domains, particularly whether the processes were independent for each domain or if there were interactions between the iterative processes across the three domains.</td>
</tr>
<tr>
<td>Compile case examples of choices made and judgment exercised (that is, imperfection) in dealing with the six categories of concepts and methods.</td>
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17 There are usually some ‘stakes in the ground’ to provide constraints or starting points for the iteration, such as limited time and money, skills of some key researchers, an identified desirable policy or practice outcome, and so on.