

15. Outcome?

In dealing with question five—‘*What is the result of understanding and managing diverse unknowns?*’—the structured approach presented in this book provides a way to assess how successfully unknowns were understood and managed. This can then provide the basis for future improvements. Questions relevant for evaluation are presented in Box 15.1.

Box 15.1 Questions for Evaluating the Understanding and Management of Diverse Unknowns

How well did the consideration of diverse unknowns address the stated aims and beneficiaries (those whose concerns are taken into account)? Was a wide range of unknowns considered in new and important ways to achieve the overarching research goals?

Was the systems view taken suitable? Would a different systems view have been more useful?

Was the full range of relevant unknowns recognised and assessed?

Within the necessary limitations of the research, were the most worthwhile unknowns included? Was the balance between different kinds of unknowns fitting? Did any of those excluded turn out to be critical?

Was the problem framed accurately?

Were values considered adequately?

Were the differences in the team relevant to developing a rich understanding of and ways of dealing with the unknowns harnessed effectively? Were potentially destructive differences well managed?

Were sufficient flexibility and iteration built into the processes of deciding on a systems view, scoping, boundary setting, framing, considering values, and harnessing and managing differences?

Were applicable methods for understanding and managing diverse unknowns used? Would other methods have made better contributions? Were complexities like maladaptive effects and trade-offs recognised? Were justifiable decisions made in choosing by whom and when the diverse unknowns were considered?

Was the overall context for addressing unknowns adequately considered? Were critical contextual factors missed?

Was the authorisation for the consideration of unknowns apposite? Did it influence the handling of unknowns in significant ways?

Did the host organisational structure or culture provide barriers to the consideration of unknowns? If so, were these effectually recognised and managed? Were facilitators beneficially mobilised?

And, returning to the challenges of imperfection raised in Chapter 10, was the inevitability of imperfection adequately described and recognised? Were defensible decisions made? Were problematic responses avoided—particularly overconfidence, hopelessness and nihilism, hindsight bias and opportunities for incompetence and corruption?

Given the current rough state of understanding about unknowns, many integrative applied research teams will find it difficult to answer the full range of questions presented above. Nevertheless, by raising awareness of what needs to be addressed, these questions may spark creativity in finding new and better ways to understand and manage diverse unknowns.

Task for the I2S Development Drive

Gather and analyse case examples of evaluation both to improve the list of assessment questions and to develop more detailed guidelines for reviewers.

This text is taken from *Disciplining Interdisciplinarity: Integration and Implementation Sciences for Researching Complex Real-World Problems*, by Gabriele Bammer, published 2013 by ANU E Press, The Australian National University, Canberra, Australia.