Systems and complexity

When developing and delivering public policy, there are many factors for civil servants to consider. These may include the political mandate, time restraints, budget, available evidence and the differing perspectives of all the various audiences affected by a policy. This task is made even more complex by the way in which many of these factors are interconnected.

Systems thinking is a problem-solving approach which explores the linkages and interactions between the people, perspectives and other factors present in any given situation. It helps break down a complex problem into smaller, discrete parts whilst recognising their interactions as a whole. In doing so, a systems approach can help improve the chances of positive, planned outcomes being delivered.

Description

This topic introduces the concept of systems thinking and how it can be used to identify, define and articulate complex problems by framing them as systems. Without such a framework, policy professionals risk delivering options that have little chance of succeeding.

A basic understanding of this topic is crucial for anyone involved in policy development. This means being aware of systems and complexity and understanding the techniques to model and map systems. Although designed with policy professionals and analysts in mind, this topic is also suitable for anyone looking to improve the clarity of their thinking around complex issues.

What does it involve?

This digital topic introduces you to systems, sub-systems, system environments and all of their typical characteristics. An online tutorial describes the common techniques for understanding how a system works and you'll see what this looks like in practice, in the context of the Civil Service. You'll also learn about feedback loops, ripple effects and how systems thinking can tackle the unintended consequences of government interventions on a particular issue.

Afterwards, you'll be tasked with reviewing a recently implemented policy. Using what you have learned, and employing techniques such as rich pictures, influence diagrams and behaviour-over-time graphs, you'll identify, map and describe the critical components of that policy.

What's the outcome?

Completing this topic will equip you to recognise and describe what a system is and to appreciate how a systems thinking approach fits within the policy development. Armed with the techniques for mapping systems and breaking them down into their component parts, you'll be able to isolate the issues which are most likely to determine the success of your policy. With less danger of being overwhelmed by complex situations, you'll be able to contribute high quality policy advice and recommendations to ministers and senior officials.