

CHAPTER 4

Promoting an Experimental Problem-Solving Mindset among Public Servants

As highlighted in Chapter 3, governments are struggling to effectively meet the Sustainable Development Goals and solve public problems that involve high levels of interconnectedness, uncertainty, and instability. The pace of change and the challenge of addressing holistically the economic, social, and environmental dimensions of sustainable development compound these issues. Governments often lack the agility to respond to this acceleration of change accordingly. At the same time, there is a budgetary pressure to do more with less, particularly in the global pandemic context. This chapter examines why problem-solving learning is critical for changing mindsets of public servants to implement the Sustainable Development Goals, what is meant by a problem-solving mindset, why it is important in realizing the Sustainable Development Goals, and what learning strategies and approaches are needed to develop and support it. It concludes with key recommendations for governments to strategically prioritize bringing it about at scale.

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Why is problem-solving learning important for changing mindsets?*

The 2030 Agenda for Sustainable Development requires governments to innovate and transform the way they make decisions, operate, and engage with other stakeholders. However, it is a great challenge for bureaucratic organizations to change their operational models and performance structures. Although this challenge is often recognised by public leaders, they underestimate what is actually required to overcome these obstacles. Consequently, there is a widening skills gap due to the lack of an appropriate learning approach.

The supply of learning methods to upskill the public workforce follows a fragmented pattern of one-off training sessions concentrating on analytical and technical skills. The mode of instruction often focuses on cognitive learning, the acquisition of knowledge or the development of a specific ability. Just as there is a tendency in government to mainly focus on teaching new methods when it comes to shifting to new practices. Methods and tools (and the training sessions they come with) are valuable, but on their own they are not enough.

To use any method effectively, we need to go beyond methods and tools to focus on the core set of mindsets as well as the attitudes and skills that underpin them.

So, to deal effectively with the SDGs and foster a culture of innovation that is open to the experimental way of working that is required to address complex challenges, it is crucial to look beyond cognitive learning or basic skills training.

The very nature of innovation learning should be transformative: it should inspire and enable learners to shift their mindsets and change their behaviors.

It should improve their performance – as an individual and a team – and increase the effectiveness of their organizations. Cultural and practical instruction that strategically changes both operations and mindsets is needed to help public servants navigate the complexity and uncertainty of our times through problem-solving learning.

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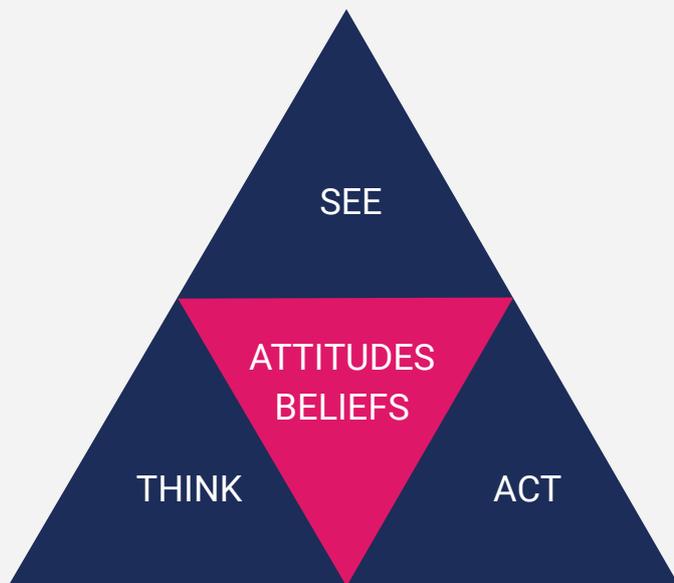
Why an experimental problem-solving mindset and approach?

Problem solving is at the heart of how governments operate yet public servants struggle to effectively solve public problems that involve high levels of complexity. Learning needs to focus on improving how governments work and how they solve problems. The process of solving complex problems is typically permeated with uncertainty, ambiguity, lack of information, conflicting interests, opposing ideas of the problem or solution space, and issues that are constantly evolving with no clear end state. In that light, decision-making happens in unique situations where there may be no wrong or right decisions.

Managing such dynamics effectively requires – first and foremost – that change is led by the right mindsets. This requires judgment with the right set of mindsets, and attitudes. What is a better or worse decision, for the short and long term and for whom? Actions are often situated in unprecedented circumstances where pre-defined plans or success formulas are unsuitable. This new context frames the nature of competence in a new way. Competencies are not just a set of technical skills but are grounded in diversity, agility, and complexity.

Box 4.1: What do we mean by mindsets?

If mindsets inform how you perceive situations and how you decide to act, then essentially, they are a set of beliefs and attitudes which shape how you see, think, and act.



Source: Authors

See refers to our perception system: what we see and hear, not just in the physical world, but socially, culturally, politically. How we 'see' things is largely determined by the 'frames' we use to make sense of reality. These are often shaped by our education, professional experience, and cultural background. For example, when an urban planner looks at traffic congestion, they may see infrastructure as the main issue; when a psychologist looks at it, they may think about human behavior.

Think refers to the way we make sense of situations (consciously or subconsciously). We develop mental models of how the world works and anticipate how causes and effects may lead to certain situations. This also affects the way we interpret information, create patterns, and ask critical questions.

Act refers to the ways we use the data and signals we see and think about to inform the behaviors and activities we deem possible and appropriate, and the manner in which we will carry them out.

Shifting to new mindsets is difficult enough in its own right. However, what is required of public servants dealing with the complex nature of public problems and the SDGs, accordingly, is managing the intricate tensions and dynamics between opposing mindsets, skill sets and ways of acting. This means that public servants need to (i) make decisions in the face of uncertainty while being able to legitimize these decisions; (ii) set out a bold course of action while adapting to and improvising for unforeseen situations; (iii) explore new possible futures while focusing on outcomes and committing to real-world effects; (iv) keep the big picture in mind while also considering citizens' needs at an individual level; and (v) be reflective and critical while having a strong bias towards action.

Mindsets are usually tacit and very difficult to codify into teachable content. Developing them requires learning modes that expose learners to the real-life situations' dynamics and messiness and mastering them involves practice and rehearsal. To jolt the status quo, learners must be challenged to look more closely at the way they currently approach, cogitate, and behave in their roles. To establish new ways to change practice for the benefit of their citizens and themselves, there must be space for learners to question the existing and explore the new. Integrating new ideas, skills, and knowledge into our sense of self and what we care about is crucial for real learning. It is crucial to link new knowledge to values and outcomes, showing how a new method will solve a deep and significant problem and why it is necessary.

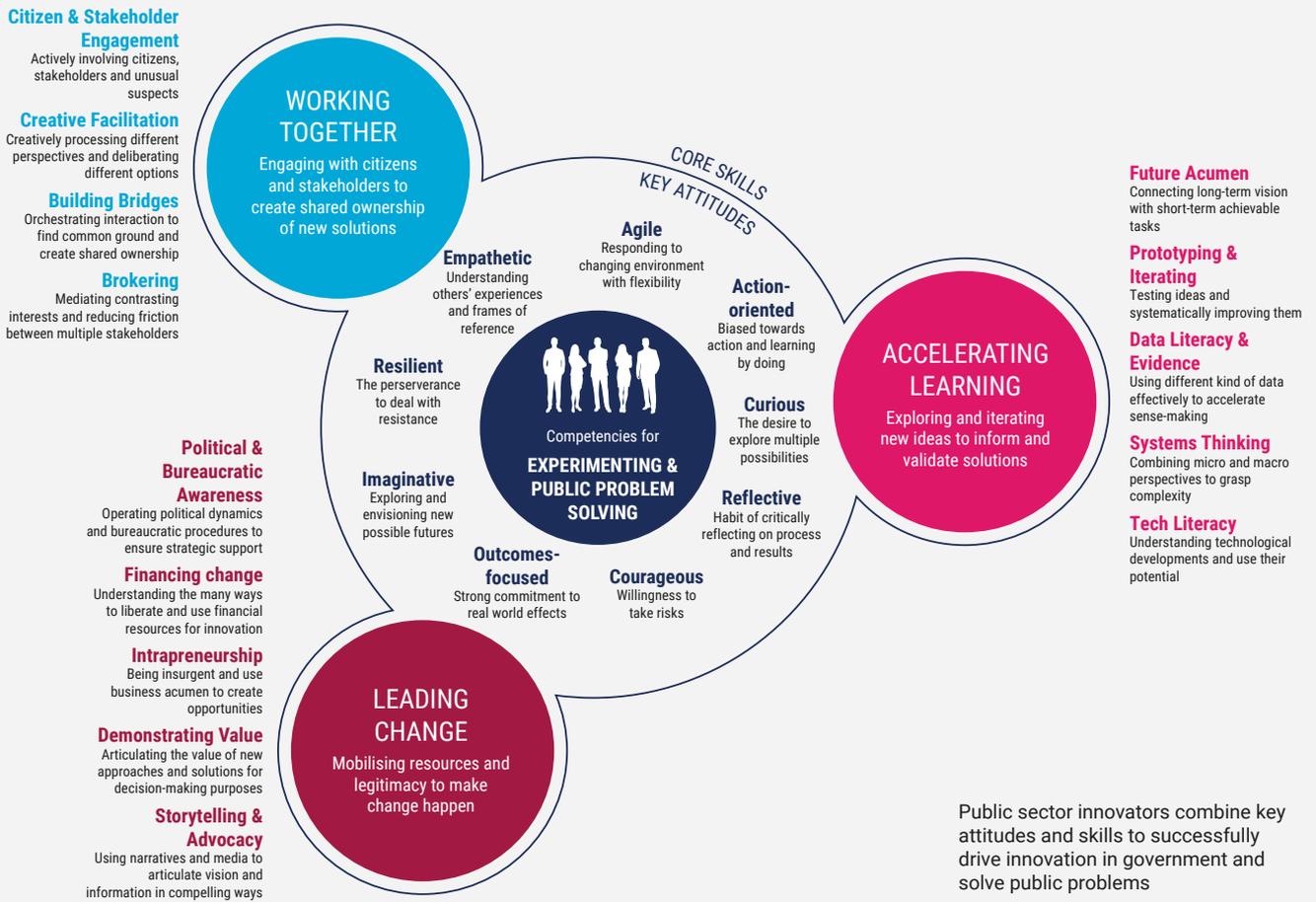
All this requires ongoing judgement and the ability to combine multiple different mindsets, attitudes, and skills at the same time. It requires a complex mind-and skillset, to say the least. Recognizing this and that said, it is also important to start somewhere useful. The research going into and experiences generated by the Nesta Competency Framework for

Experimental Problem-Solving (see Figure 4.1 below) delves into the key skills, attitudes, and behaviors that public sector innovators combine to successfully tackle problems.

Experimental problem-solving means focusing on three 'skill areas' to shape the three core mindsets: The Collaborative Mindset, the Learning Mindset and the Leading Mindset.

- **Collaborative: Driven by the “we” rather than the “me”.** This mindset seeks to understand situations from multiple perspectives. It is concerned with demonstrating empathy and humility to better connect, engage, understand and help build ideas with, rather than for, people.
- **Learning: Led by curiosity and the desire to experiment.** This mindset focuses on learning - through lived experiences, learning from others or just trying new things in a different way. Using these lessons to create solutions that best fit the challenge being tackled.
- **Leading: The optimistic driver pushing for change.** This mindset requires the energy and belief that things can be done to alter and improve the status quo, and that there are opportunities within the environment which can be seized upon. It is concerned with helping create the conditions for change and action, either through gaining support, mobilising people, resources or spreading knowledge and examples of success.

Figure 4.1: The Nesta Competency Framework for Experimental Problem Solving



Source: Nesta

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Learning strategies to promote an experimental problem-solving mindset

To activate and rehearse how these mindsets can generate useful actions and behaviors in public servants' work context requires learning modes that expose learners to the dynamics and messiness of real-life situations. It is therefore a useful strategic learning priority to adopt a challenge-based approach where concrete real-life challenges become vehicles for learning, enabling a "learning by doing" approach. The authenticity of practice (simulated or real-life) as a learning environment enhances the richness and depth of learning experiences. Challenge-based learning adds urgency, increases relevancy, and allows learners to directly demonstrate the value of the new mindsets to themselves and their organisation.

Embedding learning in and around the practice

Learning in practice – rather than just learning about practice – exposes learners to real challenges when solving complex problems. In responding to these situations, learners develop and embody their skills through doing. Serious change-makers thrive on the prospect of creating impact, not just understanding how new approaches work. Successful change-makers have a strong bias towards action, and they create change by turning ideas and visions into a course of action. "Doing" is, therefore, a vital element because it allows learners to experience the effects of their actions and learn from them.

This also unlocks experiential learning in which learners have to be willing to pass through discomfort, and vulnerability. Novel locations, experiences and tasks help people shed their comfortable outer shells and become more willing to learn. The same effect is achieved by thrusting the learner into uncomfortable real-world situations where they can be exposed and challenged. Similarly, simulations and role playing can also generate the kind of emotionally compelling experiences that assist learning.

Learning by doing becomes even more effective when it is supported with a reflection on doing.

Reflection helps learners understand how they perceive and process information, assess their decisions' outcomes, identify skills, and knowledge gaps and diagnose patterns of effective and ineffective behavior. Reflection should precede planning activities for future directions, actions, and development. It can be supported or stimulated by reflection tools, exercises, mentoring, and peer support systems. This combination of doing and reflecting on doing is key to developing complex skills.

Learning cycles and modalities

We generally only learn things when they have been repeated, ideally many times. Learning tends to work best when:

1. It is clear what is to be learned;
2. The learner has adopted an active learning intent; and
3. There is an opportunity to reflect on what has been learned, ideally applying it quickly.

In fact, effective learning follows a cycle of experimenting, experiencing, reflecting, and conceptualizing. This learning approach intends to include a variety of learning activities in a learning journey to reinforce this cycle.

A problem-solving mindset-oriented learning journey should include more learning modes than just learning from practice. For example, conceptual learning may complement "learning by doing" and "reflection on doing" by providing learners with quick introductions or knowledge about key concepts. This helps learners to conceptualize practice and understand the value of a specific approach. Instruction, demonstration, and simulation of a specific method or tool may help learners to develop a basic skill level and build confidence before applying them in real practice.

Specific skills and knowledge still matter. However, what is required changes over time. Public servants need to embrace a new problem-solving mindset alongside an evolving skillset. They still need the classic management skills of good diagnosis, planning, and implementation, as well as contextual legal and political knowledge.

Behaviors as learning outcomes

While mindsets are the grounding element, these can feel a bit abstract. So, it is important to explore, define, and rehearse what mindsets look like in terms of behaviors that are likely to support desired outcomes of public servants' work; tangible actions or habits that they can see. They should be able to observe them, in themselves, their team or their organisation and recognise where they are and where they are missing.

It is crucial to let learners experience the dynamics of making decisions in the face of uncertainty and to help them develop the mindsets and embodied knowledge that enables them to manage these dynamics effectively in future situations. When defining learning outcomes, this means they need to be formulated as actionable behaviors that can be observed: effective actions that public servants take to get a specific job done.

As well as being explicit about these effective behaviors, it is equally important to consider the ineffective behaviors and define

the habits that need to be forgotten. Having clarity on these outcomes and being specific about them helps to map out the learning activities to develop these behaviors, reflect on actual behaviors, assess attainment levels, and measure impact.

It is essential to highlight that learning should not end on completing a programme. Instead, continuous learning should be encouraged. Learners should be helped to continue rehearsing and refining the mindsets obtained and behaviors adopted.

The learning principles for experimental problem solving are highlighted in Box 4.2. here below.

Shifting mindsets involves a dynamic process – not necessarily a linear path – of constant practice and renewal.

Box 4.2: Nine learning principles for experimental problem solving

1. Focus on problem solving.

Learning efforts should help government officials become more effective at solving public problems and focus on a comprehensive palette of experimental approaches that help them explore and test new ideas to inform and validate solutions, engage with citizens and stakeholders to create shared ownership, and mobilise resources and build legitimacy to make change happen.

2. Embed learning in practice.

Learning in practice – rather than just learning about practice – exposes learners to the messiness and dilemmas of real-life challenges when solving complex problems. In responding to these situations, learners develop and embody their skills through doing. The authenticity of real-life practice as a learning environment enhances the richness and depth of learning experiences.

3. Define actionable learning outcomes.

Problem solving is about more than just having a good idea; it is about testing, improving, successfully implementing and scaling ideas that ultimately create public value. “Doing” is therefore a vital element because it allows learners to experience the effects of their actions and learn from them. When defining learning outcomes, this means they need to be formulated as actionable behaviors that can be observed; effective actions that innovators take to get a certain job done.

4. Prioritise learning by doing – and reflection on doing.

Learning by doing becomes even more effective when it is supported with reflection on doing. Reflection helps learners to understand how they perceive and process information, assess the outcomes of their decisions, identify skills and knowledge gaps, and diagnose patterns of effective and ineffective behavior. Reflection should precede planning activities for future directions, actions, and development.

5. Provide safety and support.

Learning happens when learners are outside their comfort zone and when they experience the right degree of friction. It is crucial to foster a safe and supportive learning environment and programme to pitch this friction at the right level. Learning is less effective when learners experience insecurity or anxiety. Learning needs to be orchestrated in a way that “makes the discomfort comfortable” and supports the learners with the right content, tools, and guidance at the right time.

6. Take the team as the unit of learning.

Solving complex problems requires a diverse and wide set of competencies – which are not usually found in one single person. In practice, teams are the unit of action and should serve as the vehicle of learning in order to reflect actual practice. Team learning enables social learning, so we should therefore facilitate and stimulate peer-to-peer learning, enabling learners to learn with and from others, and help them to share practices and experiences. The team also provides a safe space for participative learning through new relationships and shared reflection, and it provides a structure for emotional and professional peer-support.

7. Learn with peers and from experts.

The interaction between learners, their peers and experts is what matters most. By learning in a social context, new patterns of behaviors can be acquired by observing and imitating others. In particular, the role of experienced practitioners as a “role model” is important to inspire, motivate and demonstrate what’s possible using their own practical experience. As a “more knowledgeable other” they may serve as a mentor, giving support and guidance, or they may play the role of a critic, stimulating reflection and challenging thinking.

8. Enable continuous learning and sharing.

Shifting mindsets requires a continuous learning process, and the support of an active community of practice. We should therefore consider the wider learning journey – and look beyond single learning programmes – supporting learners to embed the shifts in mindset in their daily work and helping them achieve mastery in their new craft.

9. Promote ownership of learning.

Learning is a co-production of all actors involved (i.e., both learners and faculty) and happens best when learners are the owner of their learning. A consideration for curriculum design must be how open-ended or close-ended some elements are and to what purpose. It is important to let learners plan their own learning journey around pressing issues, as well as helping them to fulfil their learning needs and advance their career.

Conclusion and recommendations

While we have seen an increasing number of interesting project pilots and inspiring innovation initiatives showcasing how to think and work differently with the 2030 Agenda, the larger-scale impact that could come from applying these promising new approaches strategically in government rarely happens. Governments are still struggling to embed new mindsets at institutional, organizational, and individual levels in a collective strategic effort. The big question is how best to apply and spread the mindsets, approaches, skills, and culture that increase the ability of governments to deal with the SDGs.

To achieve a strategic, government-wide focus on shifting mindsets to deal more effectively with the SDGs, governments should create a strategic agenda around supporting mindset change. As a conclusion of the chapter, here are six sets of recommendations for governments to alter their efforts and increase the likelihood of creating better capacity to deal effectively with the SDGs through shifts in mindsets and ways of working.

Key recommendations and priorities for governments looking to support mindset changes in their organizations

1. **Narrative & language.** Governments should make clear why shifts in mindsets are important and develop a common narrative to shape a shared direction and purpose in how these shifts are connected to what the government is trying to achieve and how this relates to the specific roles, functions and activity areas prioritised in this light.

Key priority: Developing a shared language around the link between the SDGs and mindset changes that connects directly to practice. The challenge when dealing with mindsets as a focus area is often that it remains too abstract and is not broken down into what the specific implications are on a practical and behavioral level.

2. **Engagement & mobilization.** To achieve impact at scale, we suggest that governments take an inclusive approach to build the legitimacy and effectiveness of the 2030 Agenda. Engaging and learning from the dilemmas and challenges of public servants within their work contexts on all levels as well as mobilising relevant executives to be involved and take proactive ownership for supporting and championing initiatives and interventions will be essential to ensure successful implementation.

Key priority: Using the focus on mindsets to establish an active community of practice that through experimentation and peer-learning explores and illustrates future practices. A connected and established community of practice is essential for the consolidation of new ways of thinking and working within the public sector and the development of contextually appropriate methods and approaches.

3. **Conditions & structures.** To create the conditions for an enabling environment, public policy needs to enhance supply of and demand for shifts in mindsets. It is advisable that governments commit to developing new sets of policy and managerial instruments that structurally can enable, create the space for and support experimental problem-solving processes where new mindsets can be applied.

Key priority: An organizational strategy that can create and maintain the mandate for embedding the changes needed within the organization. New mindsets and ways of

working cannot flourish in a hostile environment. Because the effort required to create the space and legitimacy for shifts in mindsets in government is often significantly underestimated, strategic focus should continuously be on how we might practically and effectively navigate, apply, embed, and organise for the desired mindset change enabled by the appropriate authorising mechanisms.

4. **Culture & incentives.** To enable strategic and effective application of new mindsets, governments need to focus systematically on creating a culture that supports activities, sense-making processes, and learning for trying out and learning about new behaviors and ideas - that in time can foster a more experimental culture in all levels of departments and agencies.

Key priority: Developing a new organizational learning culture. When developing new mindsets, the end product is not only impossible to define in advance but will also continue to change over time because it needs constant rediscovery. Consequently, it is important to manage expectations and create the right demand for what can be achieved both in the process of developing and establishing new mindsets. This process requires that organizations adopt an organizational learning culture that allows for constant experimentation, reflection, and adaptation that enables public servants to try out new behaviors while (re)connecting these to their responsibility area and sense of purpose.

5. **Processes & approaches.** Policy and programme processes can be innovative and support new ways of thinking and doing by leveraging new principles, logics, and methods of experimental innovation. It is suggested that governments deal with the SDGs through a shift in policy logic and cycles that are in synergy with creating a new organizational learning culture.

Key priority: Experimenting with new approaches & developing new policy instruments. New mindsets are usefully supported by policy interventions and vice versa. SDG problem-solving challenges call for new ways of operating in diverse and complex environments. The Design for Policy agenda has much to offer where governments are expected to create a better dynamic between policy and practice and take the role of stewardship of change coalitions in exploring new ways of dealing with the SDG challenges.

6. **Capacity & skills.** Governments need to invest in systematic capacity building and skills development, which incorporate a central focus on developing and/or changing mindsets with a behavioral outcome focus. This entails more than learning new techniques and methods and requires a holistic focus on both individual learning journeys and organizational cultural transformation. In this light, we would recommend that investments go into dedicated capacity-building programs with a multitude of learning experiences, peer networks, and in-practice support mechanisms to embed “mindset change” learning into core tasks and responsibility areas.

Key priority: Strategically linking up human resource development with policy and problem-solving activities. Governments can increasingly use competency management approaches to set up standards for professional behavior and performance management, and to gain a competitive advantage by integrating HR policies with business strategies. However, this development often happens within traditional bureaucratic logics without a strategic awareness of what is required from civil servants dealing with complex issues and agendas, such as the SDGs. How good performance is understood, valued, and authorized needs to reflect the kinds of behaviors needed to act productively and effectively when dealing with the SDGs.

Endnote

This chapter cites, incorporates and builds on resources developed by The Nesta Innovation Skills Team and the States of Change initiative – both of which Jesper Christiansen and Kelly Duggan have been part of for several years. A special thanks to the team for its dedicated and inspiring work in the space of learning for experimental problem solving. It was a great honour to be a part of the journey.