

Why how we do something can be as important as what we do

Sean Redmond University of Limerick



Opinion: implementation science has a potentially significant part to play in how we deal with a "wicked problem" like Covid-19

Popularised by Fun Boy Three in 1982, the Sy Oliver and "Trummy" Young jazz number "Tain't What You Do (It's the Way That You Do It)" perhaps overstates that what you do is trumped by how it's done. However, evidence from the implementation science stable suggests that there is more than mere rhetoric in the message.

I don't particularly like the label implementation science as "science" seems to be awkwardly lobbed-on to give this new discipline gravitas. However, what's not in question is that the systematic gathering of evidence about how things get done (from the top down) and how they are experienced (from the bottom up), as opposed to whether they work or not; contributes considerably in terms of a programme's effectiveness and efficiency.

The need for these "enabling conditions" is now accepted by most advocates of evidence based policy. Where effect size was previously averaged-up with the assumption that certain social programme effectiveness could be guaranteed anywhere and everywhere, context is now

considered a key variable affecting performance. In short, differential results are produced when exactly the same programme is delivered in different contexts.

https://youtu.be/i_I5OsxAxao

An introduction to implementation science

Implementation science, which also criss-crosses with agency theory, process engineering and transaction cost economics explains how great expectations in Washington are dashed in Oakland. There is no zero cost solution to implementing programmes of action, irrespective of how well a contract is crafted by the principal to design out opportunistic behaviour by the agent. There is no way to centrally flick a switch to set a programme of local actions in motion which is 100% faithful to the political system's original intentions in the same way you would illuminate bulbs on a Christmas tree.

It may seem obvious, but it's often overlooked: policies and programmes don't implement themselves. The process of maximising a programme of action is difficult enough in stable situations. For example, there are inherent implementation assumptions when your GP hands you a bottle of pills. It goes something like this: there are instructions on the label and it is assumed that you, as a rational person, will observe the label instructions, even though there's enough tablets in the bottle to make you really ill.

It is also a good time to examine implementation with a view to improving performance

But take a crisis like Covid-19, where central decision makers are operating in quickly changing landscapes. They are reliant on humans capable of multiple interpretations of the same instruction, mood swings, confusion, irrationality, gaming behaviours and a host of other assets and deficits, to deliver programmes in hundreds of varied and distinctive communities. It gets very tricky.

Into this space comes behavioural economics, to subliminally nudge us toward desired behaviour and away from anti-social activity. To my knowledge, this new science hasn't really moved beyond messaging and situational techniques directly impacting intended subjects, rather than stewarding the nexus of moving parts in public, not-for-profit, business and private behaviour domains that constitute modern governance.

Implementation science and Covid-19

Implementation science is about identifying the assumptions underpinning a policy, programme or practice and then using rigorous methods to test whether such assumptions, (which may be overt,

implied or simply intuitive), are founded in practice. This examination of the gap between intent and reality (the 'ought' from the 'is') or what 'we think we know' from evidence, and 'what is routinely practised' is really all implementation science is about. This knowledge can offer a valuable practical contribution to the policy toolbox.

Of course with the current crisis, there is less time for reflection and considered planning. Each problem solved appears to be a symptom of another. Everyone seems to have hatched an answer because everyone sees the problem slightly differently. Every action is a one-shot operation because there is no room for testing or paradoxically, failure. Covid-19 represents a true "wicked problem", a Gordian knot of treacherous complexity.

However, implementation science can be beneficial here to outcomes and real-time decision making, assuming that data can be accessed, processed and analysed expeditiously. Case study evidence from the front line experience, sampled carefully to represent a range of contexts, can help policy makers understand how well intentions regarding specifications, for example in field hospitals, are actually landing. Whether accommodation, equipment, technology and human resources are interacting as planned. Or whether X seems to be doing it better than Y, in terms of management style and cultivating esprit de corps, which is a reasonable proxy for a local team's resilience to external shocks. High quality feedback loops in these circumstances could prompt a change of tack in design.

'We don't have a tool for this'

Implementation knowledge could help policy makers for instance understand how young people are experiencing, processing and acting on social distance messaging. By incorporating the craft knowledge of frontline youth practitioners, more efficient and effective tools may be found to engage young people in behaviour change. Such deliberative design and practitioner stress testing could well be more effective and efficient than only sieving the results of randomised control trials.

As the Harvard Professor Malcolm Sparrow observes, it's when things are tricky that seasoned craft knowledge comes into its own, when we realise 'we don't have a tool for this' and a new innovation needs to be fashioned. However, the retrieval and analysis of such data needs to be undertaken rigorously with transparent methods, an antidote to anecdotes which can shunt decision-making in certain possibly ineffective directions. Here I can live with the term science.

It is completely understandable why research effort is loaded toward treatment therapies and vaccine development. However, it is also a good time to examine implementation with a view to improving performance. The ever changing environment is a real challenge to the research community in terms of providing the best help to policymaking, involving the repurposing of effort and expediting of the research process. This applies in my own interest area of social science as much as the huge efforts being made by colleagues in the health sciences and Stem areas who are the more usual first-responders from the research community to a crisis like Covid-19.



Storm on the Sea of Galilee by Rembrandt van Rijn. Photo: Barney Burstein/Corbis/VCG via Getty Images

I use this painting (an idea borrowed from the cover of Peter L Bernstein's terrific "Against the Gods: The Remarkable Story of Risk"), with our students to communicate the practical value of scientific evidence in public policymaking. Rembrandt's Storm on the Sea of Galilee portrays a time when a ship sailed out to sea and its fortune was in the lap of the gods. A tempest at sea usually meant that the ship went down with all hands, notwithstanding the efforts of the crew.

In the centuries that followed, cartography and navigation techniques help sailors determine their position and proximity to safe harbour. Bulkheads lessen the chance that a ship will sink immediately if holed beneath the waterline by containing the impact of any rupture. Weather forecasting

predicts safe and unsafe conditions and critically sailor competence has improved to make use of the technologies to steward the ship. The number of ship related deaths over the centuries has reduced dramatically even though the external conditions at sea have changed little, or possibly got worse.

Without pounding the analogy, technological solutions have to be the research priority for the containment and hopefully successful vaccination against Covid-19. However, we should also carefully document, examine and inform our stewardship of the crisis in real time providing the necessary sense and response data to tack where necessary on an overall course pointing in the right direction. Implementation science has a potentially significant part to play in this.

Dr Sean Redmond is Adjunct Professor of Youth Justice in the School of Law at the University of Limerick. He is a civil servant employed by the Department of Children and Youth Affairs seconded to the university