

# Leadership and decision-making

***“When we emphasise procedures over skills we set a standard of mediocre performance.”***

**Gary Klein in  
*Streetlights and Shadows*  
p 31**

Klein accepts that procedures are most useful in well-ordered situations when they can substitute for skill, not augment it. However in complex situations, procedures are less likely to substitute for expertise and may even stifle its development.

Gary Klein has been associated with empirical study of human decision-making in the real world - i.e. outside the laboratory. In his 2009 book, *Streetlights and Shadows*, he debunks conventional wisdom about how to make decisions. He takes ten commonly accepted claims about decision-making and shows that they are better suited to the laboratory than for life where complex situations are prevalent.

The first claim is *“Teaching people procedures helps them perform tasks more skillfully.”* He accepts that procedures are most useful in well-ordered situations when they can substitute for skill, not augment it. In complex situations, procedures are less likely to substitute for expertise and may even stifle its development.

He described how procedures can lead to mindlessness and complacency and quoted a 1996 study of forecasters in the US. The mediocre forecasters relied on procedural guides when collecting data, and also when turning the data into forecasts. In contrast, the highly skilled forecasters tried to understand what was going on. They foraged for data that helped them build a better understanding, and used their understanding to make predictions.

The procedures in one national forecasting service enabled mediocre forecasters to just follow some rules and still put out adequate forecasts.

But these procedures degraded the performance of the skilled meteorologists so that their forecasts were also just adequate. The procedures were eroding the expertise of the skilled meteorologists.

Methods or procedures need to be taught in a way that ensures that their limitations are exposed. The scenario format in which various kinds of challenges are encountered seems to work better than having people memorize the details of each step of the procedures.

*“I know of no one who combines theory and observation - intellectual rigor and painstaking observation of the real world - so brilliantly and gracefully as Gary Klein.”*

Malcom Gladwell, author of *Outliers* and *Blink*.

Let's take another of his claims - *“To get people to learn, give them feedback on the consequences of their actions”.*

The real problem here is what we understand by the word 'feedback'. Is it outcome feedback or process feedback? Suppose I am trying to improve my ability to swim a certain distance. A coach can give me data on how long I take for each swim and show whether I am improving - this is outcome feedback. However if my breathing patterns are analysed, it might be suggested that a different way of taking breaths between strokes might be advantageous. This is process feedback.

So Klein suggests that *“We can't just give feedback (on the consequences of their actions); we have to find ways to make it understandable”.* This involves taking the learner into account - trying to understand in a more holistic way why the outcomes were not as expected.

His eighth claim is *“The starting point for any project is to get a clear description of the goal”.*

This is a statement that got a higher level of agreement from his sample than any other. It *“implies that we should not start work unless we can get a clear description of the goal. But if we insisted on clear goals, we simply couldn't get started on most of the important projects in our lives”.*

He notes the danger of goal fixation when managers fail to adjust sales targets when external changes suggest a reappraisal. So he would rewrite the claim as *“When facing wicked problems we have to redefine the goals as we try to reach them”.*

This is no different from the review of the project success criteria at project gate reviews. Its just that Klein wants us to be prepared for the difficulties thrown up by a complex project.

*“I also want to create a different mindset. We are often encouraged to control conditions as much as possible. This control-oriented mindset is best suited for well-ordered situations. In ambiguous situations, in the world of shadows, we aren't going to be able to control everything that matters. We're going to adapt. We should expect to adapt.”*

*The mindset I want to foster is to expect to run into problems and to prepare ourselves to recover, to be resilient. Instead of putting all our energy into preventing problems - which is unrealistic - we need a mindset of recovering from problems”.*

Gary Klein in *Streetlight and Shadows*