Iterations in planning and management

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Abstract

Process iterations in planning and management conduct knowledge and experience towards continual improvement. In this context, the ISO 9001 'Plan-Do-Check-Act' (PDCA) method is juxtaposed with the Systems Planning℠ 'XYZ' problem definition™ (XPD) method at the level of their underlying protocols.

1   Introduction

Planning as a *strategic* operation, and management as a *tactic* operation (Perdicoúlis, 2014a) are often set up around 'problems' that are dealt with as linear processes aiming for a 'solution' (Figure 1). People reason in different ways, according to their upbringing and schooling, so there are many possible ways to conceive and conduct this process (Mintzberg et al., 1998; Perdicoúlis, 2014b).
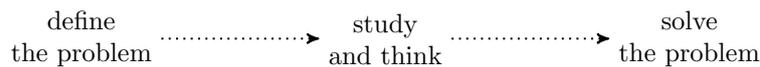

FIGURE 1   Linear sequence of tasks from problem to solution

Scientific approaches to planning and management are highly regarded due to their vast knowledge base and methodic nature, but tend to be 'theoretical' in the sense that they terminate at the solution (Figure 1). Nonetheless, it does make sense that eventually those solutions must be implemented, and it makes even more sense that feedback must be gathered, reflected upon, and somehow employed for the benefit of planning and/ or management — Figure 2.
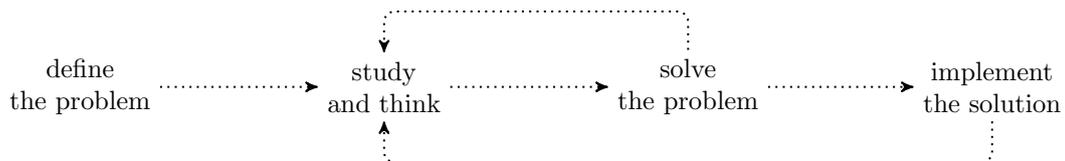

FIGURE 2   Knowledge and experience obtained in an operation can be used again

2 The 'Plan-Do-Check-Act' (PDCA) method

The continual improvement method known as 'Plan-Do-Check-Act' (PDCA) is widely popular and influential due to its association with the ISO 9001 'quality standard' (ISO, 2008, p.vi) — Figure 3.
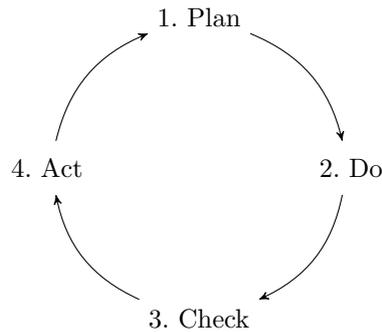

FIGURE 3 Outline of the 'PDCA' method for continual process/ product improvement (ISO, 2008)

Nonetheless, the underlying protocol of the PDCA method is obscure at some of its parts, and requires interpretation — Figure 4.
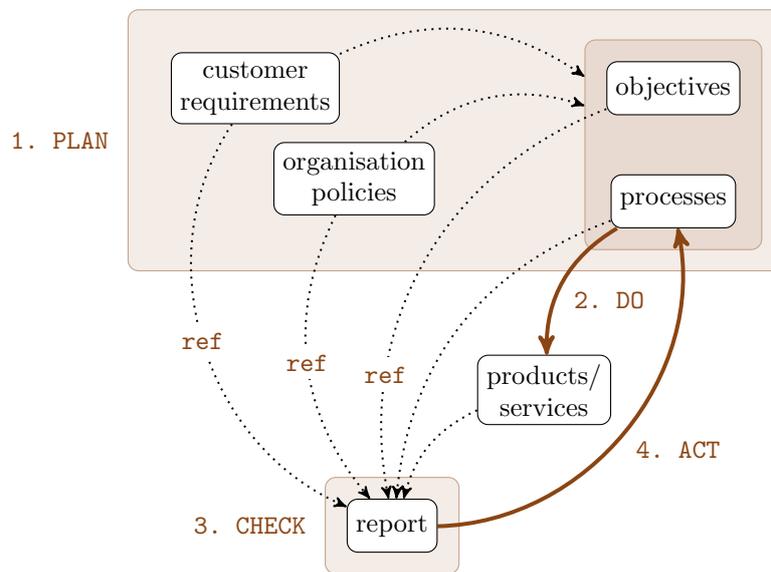

FIGURE 4 Interpretation of the protocol of PDCA based on the ISO (2008, pp.v–vi) documentation

While the 'Plan' phase is detailed, including four out of the six elements of the method, some information flows are vague (e.g. *v.* darker rectangle in Figure 4). The implementation phase ('Do') is quite straightforward, but the 'Check' phase could establish relationships with more precision. Perhaps the least elaborated phase is the 'Act': besides its potential confusion with 'Do', its intent bypasses the process to be improved and focusses on its *performance* — which is meta-information, or a 'shadow' of the process (Perdicoúlis, 2013).

3 The 'XYZ' problem definition™ (XPD) method

The 'XYZ' problem definition™ (XPD) method of Systems Planning℠ is equally simple (Perdicoúlis, 2014d), presented as a descriptive causal diagram (Perdicoúlis, 2014c, DCA) in Figure 5.
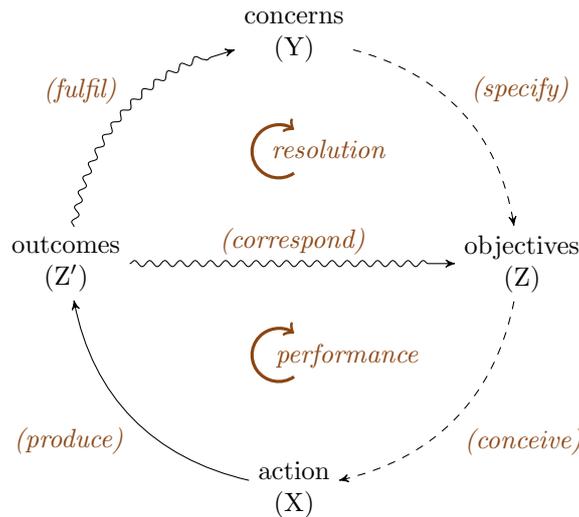

FIGURE 5   The 'XYZ' problem definition™ (XPD) method (Perdicoúlis, 2014d)

The underlying protocol of the XPD™ method is presented as an information flow in the concise process diagram (Perdicoúlis, 2014c, CPD) of Figure 6.
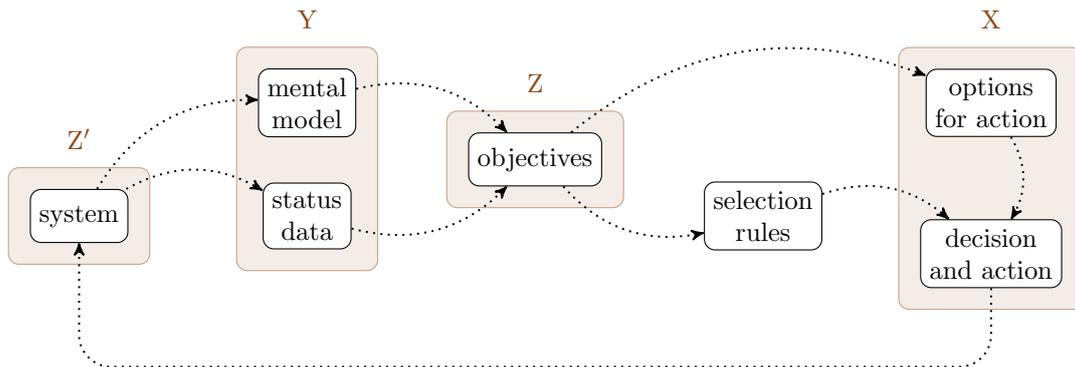

FIGURE 6   The XPD method is based on 'systems learning' (Perdicoúlis, 2010, pp.42–44)

Both the XPD method (Figure 5) and its underlying 'systems learning' protocol (Figure 6) abide by the spirit of Systems Planning℠, which in turn is an instantiation of the *cognitive* school of strategy (Perdicoúlis, 2014b), seeking technical rigour such as explicit mental models and concrete objectives (Mintzberg et al., 1998).

4 Discussion

Both PDCA and XPD provide for iterations in strategic or tactic operations that include opportunity for continual improvement — i.e. not applicable to 'one-off' projects or plans. It is interesting that both methods feature explicit *objectives*, which is a characteristic of the cognitive strategy school (Mintzberg et al., 1998). It could be argued, then, that PDCA and XPD belong to the 'same school'.

Nonetheless, the two methods demonstrate significant differences upon closer inspection. PDCA highlights the productive processes (Figure 4), but underplays the assessment procedure ('Check') as well as the pathway to improvement ('Act'). Hence, *assessment* and *improvement* become the responsibility of the user, which gives considerable liberty for innovation, but also a considerable onus — neither of which fit well in the mission of a *standard* such as ISO 9001. On the other hand, XPD presents a more substantiated procedure (Figure 6), and keeps the productive processes as a *parallel* study — *v.* example in Perdicoúlis et al. (2015).

5 Conclusion

The PDCA and XPD methods provide guidelines for continual improvement in iterative strategic and tactic operations — i.e planning and management, respectively. Dissimilarities in their provisions do not make them antagonistic, but rather likely to be chosen by people who think and work differently.

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