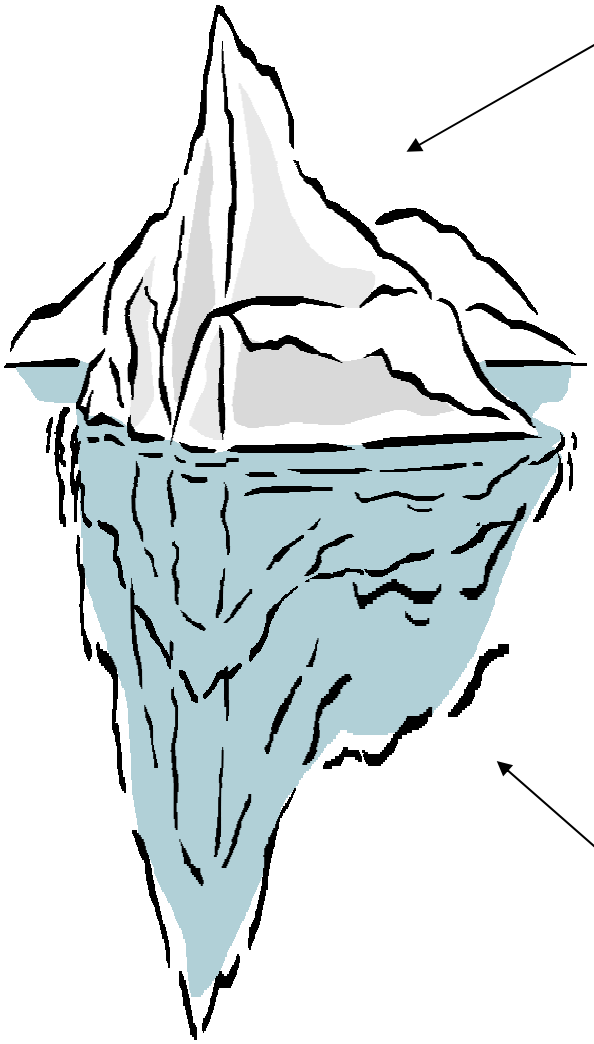
DEVELOPMENT CONSULTANCY
Developing People And Their Organisations

Endorsed Awards

Icebergs, Dominoes and Flocks of Starlings – Changing how we manage change

1. Seeing parts or seeing the whole – the change iceberg

Think about your team. In Box 1, list all the information about your team and the way it works that is explicit, objective and openly available to the team and the organisation (usually, this sort of information is written down). In Box 2, list all information about your team and the way it works which is implicit, subjective or not openly available, but which nevertheless affects the team's functioning in some way



Box 1

Box 2

Often, in managing change, we focus on factors that are objective and explicit, while downplaying or denying other factors. This leads to decisions or actions that seem logical or "right", but which fail to achieve the desired result. It is, of course, important to attend to these "above the waterline" factors such as budgets and procedures, but these are only part of the picture. To manage effectively we need to see the whole, including issues which are not formally recorded, not usually talked about openly but which nevertheless affect the way the team works.

2. Seeing the results of our actions – Dominoes and systems thinking

Imagine a man pushing a huge domino out of his way. Unfortunately he doesn't notice that he is sitting in a circle of these dominoes and has started a chain reaction where each domino falls onto the next until eventually the man is crushed from behind. But the circle is so huge that it takes a very long time for the last domino to fall. This means that the man makes no connection between his action and its consequences or, more likely, he has moved on and someone else gets crushed.

Senge calls this "the classic dilemma of problem solving in complex systems. We don't see the larger structures within which we are operating. Consequently our actions come back to haunt us – or to haunt someone else, someone in another part of the system or someone in the future[i]"

Iatrogenic illness is an example of this, where medical problems are created as the result of an earlier solution to a previous problem. Although each intervention is designed to fix a particular problem, it also has repercussions in the wider system. This is one of the drawbacks of reductionism

Scaling up and scaling down

re·duc·tion·ism

n. An attempt or tendency to explain a complex set of facts, entities, phenomena, or structures by another, simpler set: *"For the last 400 years science has advanced by reductionism ... The idea is that you could understand the world, all of nature, by examining smaller and smaller pieces of it. When assembled, the small pieces would explain the whole" (John Holland).*

re·duc'tion·ist *adj. & n.*, **re·duc'tion·is'tic** *adj.*

Reductionism is useful for issues like finding errors in accounts or repairing a car. But complex problems involving human behaviour cannot be solved this way. Instead of scaling down, we have to scale up to see the whole system. Unless we recognise this, we are likely to make significant errors.

Systems thinking is the discipline of trying to see the wider system and to understand how our actions will affect the whole system. A basic principle of systems thinking is **shifting the burdens** where we deal with symptoms rather than causes. Instead of addressing the underlying problem, we adopt other solutions. This has the effect of temporary Improvement, but it may create a dependency or even mask a worsening of the problem.

Examples of **shifting the burdens**

- Continually "bailing out" overspending departments – instead of tackling poor management we put in extra finance. Short term the problem is solved, but longer term not only is this not a solution but we also increase the expectation that overspends will be funded
- Frequently working long hours to deal with workload. Short term we fix the problem, longer term not only have we not dealt with unreasonable/inappropriate workload but we also undermine the quality of our work through stress/family breakdown etc

Addiction and dependency. In each case a one off quick fix soon becomes institutionalised – a way of life. The more it works, the more it undermines our capability for long term improvement. In this way it is like the dependency associated with addiction. Addiction, such as substance abuse, may develop from a reluctance to face difficult issues. But as well as individuals, teams and organisations can develop dependencies that drive them further and further from addressing the real issues

Why do we shift the burdens?

- There are usually lots of ways to make a problem "go away" for a while, but far fewer which achieve long lasting positive change
- Implementing a quick fix can be portrayed as positive action (The illusion of taking charge) while the reflection needed to figure out a better option may be seen as inaction
- Dealing with the symptoms is usually less painful and demanding
- Dealing with real issue often demands co-ordination across departments or agencies
- We may not be around long enough to suffer the consequences, or they may emerge somewhere else in the system

Systems thinking contains other insights into the way complex systems work. Another common principle is that of the **reinforcing system**, where, like a snowball rolling down a hill, the behaviour or system just keeps growing or strengthening until other factors intervene. This can be positive or negative. For example….

- Effective, productive team meetings lead to…….
- Motivated team members, which leads to….
- Increased expectations and commitment, which leads to……
- Effective, productive team meetings

Or……

- Ineffective/partial management communication leads to…….
- Misunderstanding, suspicion and challenging questions by staff, which leads to
- Frustration and withdrawal by management, which lead to……(see first bullet point!)

Shifting the burdens - Exercise
In pairs or trios, identify situations where the "shifting the burdens" principle is at work in your department or team

Why is this being done, and what might be the long term consequences?

What other, more sustainable approaches can you think of?

3. Working with complexity – Flocks of starlings

A flock of starlings is an example of a complex system – an interconnection of parts sharing an environment with each having some freedom to act independently. They cannot be predicted in detail and they do not have a static order that can be planned or manipulated. Other examples include

- Financial markets
- Families
- Organisations
- Weather systems

Is it a bird……or is it a 'plane?
Classic management theory sees the organisation as a sort of machine which can be designed (organisational structure), assembled from various parts (types of staff) and then operated or driven (policies, plans, strategy) like, for instance, an aeroplane.

However, this fails to take into account the humanity of organisations and the reality that planning them is hard and, in the long term, almost impossible. It also fails to recognise that people in organisation can decide whether or not to comply with management instructions.

So rather than being like a 'plane, an organisation is more like a flock of birds

Rocks and birds – Plsek's two approaches to management

Paul Plsek compares the difference between these approaches (classical management and managing complexity) to the difference between throwing a rock and throwing a bird. The trajectory of the rock can be determined accurately using the laws of physics, but the bird's flight, although its flight is subject to the same laws, cannot be predicted by the same laws! One approach is to tie the bird up so it behaves like a stone, but this will also destroy its innate capabilities. A more creative approach is to consider what influences a bird to fly in a particular direction

How to work with complexity

- **Complexity cannot be controlled**. Trying to control an organisation is like trying to control a family – both unethical and impossible. You can influence, but not control
- **Complex systems are non-linear.** Tiny changes can have a huge impact, large changes may have very little impact
- **Scale up.** Your department does not exist in a vacuum. Think about the wider system. Pictures and diagrams can help in thinking this through. Remember that changes in one part of the system can have unintended consequences in another part
- **Remember the ability of people to change themselves and to self organise.** Clarify a few simple rules - the non-negotiables – and then let

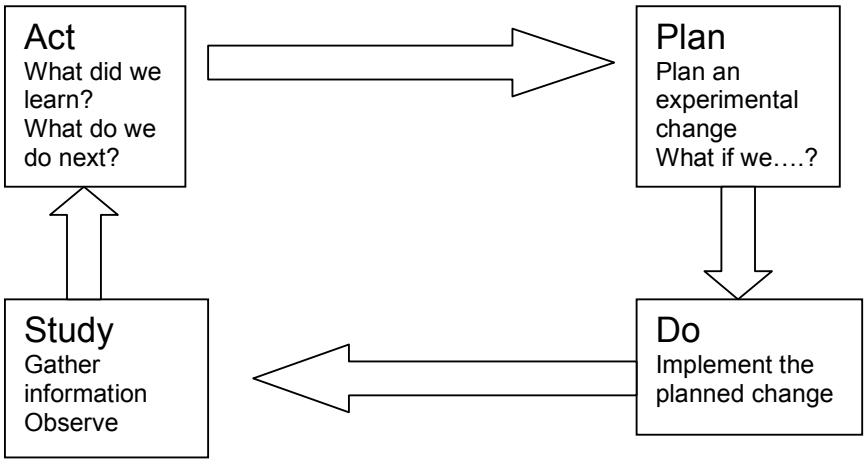
people sort themselves out. Micromanagement is a denial of the capabilities of your staff

Working with Complexity – Exercises

In pairs/trios, identify practical ways you could use PDSA (see below) or other approaches to release the potential of your staff. What obstacles do you see?

Using a piece of flip-chart paper, draw how your department fits within the wider system as you experience it. Remember the system may include patients and other aspects which have no place in the formal organisational chart

The PDSA cycle. This is an important principle in working with complex systems. It is a set of simple rules which, if internalised, will produce complex, creative, unpredictable change. It enables emergent change



Self Organisation

Shortly after the Soviet Union collapsed, a Russian bureaucrat traveled to the west to seek advice on how the market system functioned. He asked the economist Paul Seabright to explain who was in charge of the supply of bread to London. He was astonished by the answer: "Nobody."

Fifteen years later, I had thought that almost everyone had abandoned the notion that a committee could plan its way through the unimaginable complexities of an advanced economy. I was wrong.

Tim Harford in Undercover Economist, 27 September 2008

Further reading

- The Fifth Discipline by Peter Senge (Random House)
- The art of systems thinking by O'Connor and McDermott (Thorsons)
- Leadership and the new science by Margaret Wheatley (Berrett-Koehler)
- System Failure by Jake Chapman (Demos)

[i] Senge, P. Lecture at the Annual Conference of the Robert K Greenleaf Centre, October 1992. Quoted in; Larry Spears (ed) 1995. Reflections on Leadership. New York. Wiley