The Fifth Discipline
The Art and Practice of the Learning Organisation

Peter M Senge (Random House, 1992, 424 pages)
My thoughts about application to the Kirk are in italics.
For those who can't face 12 pages, The first chapter forms a summary of the rest of the book.

I. HOW OUR ACTIONS CHANGE OUR REALITY... AND HOW WE CAN CHANGE IT

1. 'Give me a lever long enough... and single-handed I can move the world'

We are taught to break problems down into component parts and then 'see the big picture' by reassembling them. Organisations need to be learning – not just have one visionary learner at the top. We all love learning, and being part of a great team. People today have a different view of work: they don't just want the money to survive, but intrinsic benefits.

There are five 'component technologies' of a learning organisation, like the five technologies which had to come together to enable commercial air travel (these were the variable-pitch propeller, retractable landing gear, a lightweight moulded body, radial air-cooled engine, and wing flaps), each of which enables the others to be effective:

✠ Systems thinking: seeing the big picture
✠ Personal mastery: deepening the vision and qualities of every individual
✠ Mental models: working out what our assumptions and prejudices are and what they should be
✠ Building shared vision: something for everyone to be passionate about
✠ Team learning: how to use dialogue (genuine 'thinking together' rather than 'discussion', batting ideas around until one wins) to build a team with more, not less, intelligence than its members.

As an organisation you will either be learning or getting worse. Practising the disciplines is an ongoing state, you don't reach 'excellence' and stop. It's not the same as emulating best practice, always imitating and catching up.

Systems thinking is the fifth discipline: the one which ties all the others together. Learning is 'metanoia' – a shift of mind, not taking on information but learning what the world is about, how to be creative. Most of our problems come from our inability to see the big picture and how things relate. Our attempts to alleviate symptoms, for example ecological problems, often just make things worse.

Businesses have the freedom to experiment which the public sector and non-profit organisations often lack, and this is why the disciplines developed here.

2. Does your organisation have a learning disability?

Few large organisations last more than forty years, although in most of them the problems have been seen coming years in advance. Most organisations suffer from seven learning disabilities:

1. 'I am my position': people don't see themselves as part of a bigger structure, they just do their own job.
2. 'The enemy is out there': as a consequence, when things go wrong you blame someone else (not doing their job properly), rather than seeing it as a failure of the system of which you are a part.
3. The illusion of taking charge: taking aggressive action against problems makes you feel 'proactive', although you are actually just 'reacting' to the problem. True

proactiveness means stepping back to see how you are creating your own problems and how you can solve them.

4. The fixation on events: we have a short-term view of things, and think every event has one cause. The media makes this work.
5. The parable of the boiled frog: if you put a frog in boiling water he'll jump out, but if you heat his water up very slowly he'll just sit there happily until he boils. We tend to miss seeing gradually growing problems because we go at such a frenetic pace.
6. The delusion of learning from experience: you can't learn from experience when decisions affect other areas of the organisation with which there is little real interaction, or when it is a few years before they take effect.
7. The myth of the management team: too often these 'teams' quash dissent, produce watered-down compromises, and break down under pressure.

3. Prisoners of the system, or prisoners of our own thinking?
Game in which a retailer, a wholesaler, and a brewery marketing director deal with a sudden doubling in beer sales due to their brand being mentioned in a pop song. Because it takes four weeks to process orders, the retailer uses up their inventory and orders more and more to cover the backlog. The wholesaler suddenly has orders which increase, and then when their inventory is used up, shoot up. The brewery, when it realises that orders from the wholesaler are going up even faster, brews huge quantities of beer. When the orders start arriving, the retailers suddenly have a huge surplus and so stop ordering any at all: the wholesalers see a huge surplus coming and stop ordering: from the brewery's point of view it appears as if beer sales suddenly soared and then dropped to zero. They blame the fickle public, the retailers, the wholesalers, not realising that the beer is still selling steadily at twice the rate it was originally. The marketing director is sacked, but the problem was the system.

We want *people* to produce visible results, and *people* to blame when things go wrong, but different people, put into the same system, consistently produce the same results. We often don't perceive the structure we're part of, we just feel compelled to act in certain ways.

For example, the USSR were the first to recognise the Afghanistan, and were the first to help out when the new government had problems with rebels. But the problems with rebels got worse and worse, assistance was required more frequently, and eventually the USSR 'had no option' but to send in troops. In the beer game, most people produce far worse results than they would if they followed a 'no strategy' strategy, and always ordered the same amount of beer that they sold. They would have a perpetual small backlog, because of the delay for increased orders to come through, but they would not have the catastrophic swings.

You can improve your strategy radically by thinking in terms of the whole system: you don't have to *keep* placing large orders to restore your inventory, you have to remember that there is one coming through; and you must realise that if your supplier can't get your beer to you quickly, the worst thing you can do is panic and order loads, because that will make them panic too.

People tend to focus on events: 'I ordered 40 because my retailers ordered 36 and wiped out my inventory' – which dooms them to a reactive stance. It is better to step back, recognise the patterns, and respond to these shifting trends; or even better, to work out what causes the patterns, and act in a way that influences them. Franklin Roosevelt imposed a four-day 'banking holiday' to halt the panic-stricken withdrawals which were using up the banks' reserves and (in doing so) increasing the panic. He sold it to the public by giving a calm and clear explanation of why this was necessary: people were able to see the whole structure of the problem.

Enthusiasm for the future is not enough to create a learning organisation: there needs to be a conceptual framework of structural thinking.

II. THE FIFTH DISCIPLINE: THE CORNERSTONE OF THE LEARNING ORGANISATION

4. The laws of the fifth discipline

1. Today's problems come from yesterday's solutions – usually because they shift the problem from one part of the system to another, so to the person who applied the solution, it appears to have gone away.
2. The harder you push, the harder the system pushes back – compensating feedback, eg a scheme to provide low cost housing and job training in one place is flooded by low-income migrants so problems get worse.
3. Things get better before they get worse – eg, new wells are dug and villages are saved; but this lowers the water table faster so in the long term droughts are worse than before.
4. The easy way out usually leads back in.
5. The cure can be worse than the disease – the most insidious effect of non-systematic solutions is the need for more and more of the solution. Ill-conceived interventions, whether by the government or by an individual trying to solve their stress problems by social drinking, not only fails to solve the problem but leads to addiction. It's a problem of 'shifting the burden to the intervenor'.
6. Faster is slower – in a complex system, fastest growth is not the best. In organisms, they lead to cancer; in organisations, they lead to crisis.
7. Cause and effect are not closely related in time and space.
8. Small changes can produce big results, but the areas of highest leverage are often the least obvious – it takes a huge force to turn a moving oil tanker to the left by pushing the bow to the left, but it can be done easily by turning a small rudder to the left, which by changing the water pressure, sucks the stern to the right. To realise this you have to understand the complexities of hydrodynamics. Learning to see underlying 'structures' rather than 'events', and to think in terms of 'processes' rather than 'snapshots', helps you spot the points of leverage.
9. You can have your cake and eat it too, but not at once – manufacturers used to think that you had to choose between high quality and low cost, but then discovered that raising quality meant improved methods, lower warranty costs, fewer complaints, higher sales, and so eventually lower costs as well.
10. Dividing an elephant in half does not make two smaller elephants – if you set up strong divisions between different parts of the organisation, you don't get each one working independently, you just get a mess. The heads of marketing, manufacturing and research are often like the blind men trying to describe an elephant.
11. There is no blame – the cure for problems is in relationships and systems.

5. A shift of mind

It's useful to remember that the words 'whole' and 'health' come from the same root: the unhealthiness of our world today is in direct proportion to people failing to see it as a whole. As society becomes more complex, we become more interdependent, and systems thinking becomes more important.

We often confuse detail complexity (recipes with an increasing number of ingredients) and dynamic complexity (a subtle mesh of inter-relations). The former can be

understood by bigger computers running more powerful simulations, but these fail when there are underlying relationships between the elements.

The basis of understanding dynamic complexity is **feedback** – this does not come easily to us because our subject-object grammar makes us think in straight lines, when we need instead to think in circles. We also need to stop thinking anthropocentrically, and see how the system compels us to act in certain ways. For example, when you fill a glass with water, your hand controls the water level by turning the tap, but the water level also controls your hand by dictating how much water is needed to fill the glass. We're not at the centre of activity controlling what happens, but part of a system, as ecologists are so keen to point out.

1. **Reinforcing** feedback creates vicious and virtuous circles, eg a good book creates satisfied customers, who recommend it to their friends, who buy it, then they become satisfied customers....

2. **Balancing** feedback heads towards a goal, for example, riding a bicycle, or maintaining body temperature. It's often hard to spot the existence of these processes, because *nothing happens*. It explains resistance to change: for example, if you set an example whereby commitment means working a 70-hour week, you won't be able to reduce burnout amongst your staff however many rules about working hours you try to enforce. You need to change your own working practices – or provide a different role model.

3. **Delayed** feedback creates instability in balancing systems (for example, when you try to adjust the temperature of the shower and nothing seems to happen so you turn it further), and increases reinforcing systems (for example in an arms race, one side seems to have succeeded in getting ahead for a few years). Minimising delays is one of the best ways gaining control of the system. Otherwise, it's important to recognise them and treat them with patience not panic, or you'll never get the water to the right temperature.

6. Nature's Templates: identifying the patterns that control events

Some systems recur again and again – across fields of knowledge, which is one way system thinking can help interdisciplinary thinking. You have to start thinking in these terms, not just identify a particular structure underlying a particular problem, or learn a set of principles. Two structures which recur again and again are:

Limits to growth: You work harder to meet deadlines, but eventually are tired out and work so ineffectively that you get less done than would have happened otherwise. You raise yields by adding fertilizer, but eventually the topsoil is ruined and the water table lowered, and yields are worse than before. A move to create more openness and participation in an organisation at first raises morale and releases talent, and takes off: but after a while those in positions of power who are used to confrontation (managers and trades unionists) feel threatened and put barriers in the way.

A reinforcing process runs for a while, and then hits a stabilizing one. This always happens eventually: the membership of the Church of Scotland cannot grow beyond the population of Scotland. The leverage in this situation is in the limiting factor: if you push on the growth feedback loop then you will encounter greater limitation. To keep growing you need to identify and remove the limit: for example, if your marriage is breaking down, spending more time together will only exacerbate the problems, but giving up your image of an ideal partner and accepting them as they are might help.

Shifting the burden: Alleviating a problem with a symptomatic solution, so that although things get better for a while, the underlying problem gets worse and you get less able to deal with it. This is how addiction works. The easiest symptomatic solution is to lower your goals. The leverage here is to admit the truth about 'looking good' solutions

and tackle the fundamental solution: for example, admitting that increasing advertising is not going to be effective in the long term and the need is to develop new products that people will want to buy.

7. The principle of leverage
High-tech company in the 1960s created a market with a wonderful product, and set a standard that it would be delivered within eight weeks. Sales rose dramatically, and delivery times rose. Managers boasted 'people are prepared to wait thirteen weeks for our product'. Eventually, as sales kept rising, more capacity was added, but almost immediately sales fell off. A huge marketing push was followed by rising sales, and soon delivery times were rising again. The marketing manager wanted more capacity to meet demand, but the CEO, having been stung once, hesitated. Eventually more capacity was approved, but almost immediately sales fell off again. Things went on in the same fashion until eventually the company went bankrupt.

What no-one realised was that it *was* the long delivery times which put people off, but there was such a long time between delivery worsening and the company gaining a bad reputation which damaged sales, that the connection was not noticed. When there was a marketing push, capacity had grown and sales had fallen so that delivery times were lowered again. After a while, the same problem recurred. In waiting to see whether the extra capacity was needed, customers were being turned away by the inefficient delivery. When the CEO 'having been stung once', delayed, the problem got worse. No-one realised that delivery times were a significant factor in the process: in fact, managers became accustomed to actual delivery times of 10 weeks, lowering their standards.

The 'limits to growth' model was working here in that growth eventually caused poor performance, which slowed the growth. A sales push – trying to speed up the growth loop – did not remove the limit. It was also a case of shifting the burden: ignoring slipping standards and depending on a symptomatic solution, which worked temporarily. The company felt that it had misjudged the size of the market which was waiting for their product, but in fact the limits had been of their own making. The moral for managers here is, stick to the original standards through whatever difficult circumstances. The situation is one of growth and underinvestment.

8. The art of seeing the forest and the trees
Example of People Express airlines, which suffered a similar fate: this time the problem was that it tried to combine a radical human resources policy (involving investing a lot in staff resulting in high motivation and good service) with low fares and rapid growth: eventually the rapid growth forced the standards of service to slip, and people left. Attempts to compete with other airlines by lowering fares and increasing aeroplane capacity made pressure on staff worse, so service fell still further, leaving price as the only competitive advantage. If they had raised prices slightly (keeping them still lower than average), which would have slowed growth temporarily, they could have invested properly in staff, and continued to grow steadily.

III. THE CORE DISCIPLINES: BUILDING THE LEARNING ORGANISATION

9. Personal mastery
People are the main asset of organisations: their potential needs to be tapped in radical ways. It's about learning to live creatively rather than reactively, recognising where you are going and why, which is easy to forget when dealing with each problem as you encounter it *en route.* People with personal mastery have an underlying sense of purpose;

they know how to work with forces of change, rather than resisting change; they are inquisitive; they are individual but feel more connected to other people and processes.

Our society is much better at intellectual and physical development than emotional development, although the last gives greatest leverage over our lives. It needs to be realised that the maxim that to succeed as a business you need to be less moral is false.

Why does work have to be a boring necessity? Why can't it be one of the good things in life? People have come to see work as *sacred* (of value in itself for enhancing our lives) rather than *instrumental* (to earn the money so as to live a full life outside work). The relationship between employer and employee then becomes more of a covenant (a complete relationship) than a contract.

Resistance to a personal mastery strategy comes from the fact that it is 'soft' and its benefits are hard to measure compared to economic success; people have tried it with expectations which are too high and expect people to suddenly be good so they have become cynical; and the valid fear that if you empower people in an organisation where there is no shared vision, chaos will result.

Most adults have goals and objectives, but little real vision. In one workshop a teenager said 'we shouldn't call them 'grown-ups', we should call them 'given-ups''. Whether or not you believe there is an ultimate purpose for the universe, you won't be happy unless you live as if there is. George Bernard Shaw wrote:

> This is the true joy in life, the being used for a purpose recognised by yourself as a mighty one... the being of a force of nature instead of a feverish, selfish little clod of ailments and grievances complaining that the world will not devote itself to making you happy.

Purpose is a general direction (I'll improve my tennis) – vision is a specific destination (I'll win the county championship/ Wimbledon). You keep the same purpose but set new visions. There is a creative tension between vision and reality which creates emotional tension. If you don't like the emotional tension, you may go for the symptomatic solution of lowering your goals, rather than the fundamental solution to your dissatisfaction which is to achieve your vision. Creative tension to achieve a vision makes change possible without there being a crisis.

Preventing us from achieving our vision is the feeling most of us have that we are powerless, or unworthy, to achieve our goal. The nearer we get to our vision, the more doubts pull us away from it (a balancing feedback loop). There are three common tactics for overcoming this feeling:

✟ Lowering goals – letting the vision erode
✟ Diverting attention to getting rid of what we don't want, eg losing a vision of a 'green' earth in anti-nuclear, anti-GM, anti-car campaigning
✟ Trusting to willpower and overpowering the resistance by sheer bloody-mindedness. This may work, but at the cost of health, relationships etc: it's much better to look at the structures and levers.

The best system to deal with this 'structural conflict' is a commitment to the truth: not The Ultimate Truth, but making sure we see things as they are not as we've preconceived them, continually rooting out ways in which we limit or deceive ourselves, and realising that it's not easy to apportion blame, for example when other people let us down it might be that we've asked too much of them. In *A Christmas Carol*, Scrooge changed easily and freely when he realised the reality of his life: that joy and compassion had slowly been eroded. When we have a clear picture of reality, it's relatively easy to make the right choice. Thinking truthfully makes you realise how systems and structures connect you to other people, and this increases our compassion – not as an emotion, but as awareness of the problems other people face.

It's important to give due recognition to intuition, hunches and analogies, which are seen as irrational but usually turn out to have underlying rationality when you think them through. Brilliant discoveries tend to be made intuitively, with the reasoning being thought out later, rather than by building up a rational argument.

You don't foster personal mastery in an organisation by making everyone go on training courses, but by building a climate where people feel free to create visions, be inquisitive, speak the truth and challenge the status quo. The best way to do this is by modelling it in the leadership.

10. Mental models

People do not always act in accordance with the views they espouse, but they always act in accordance with their mental models, working assumptions. Mental models are active. If you never examine them they may over time come to bear little relation to reality.

Royal Dutch/Shell was a very decentralised company, with operating companies around the world. It was impossible to tell them what to do, so the company relied on a consensus way of working. This was put to the test when senior planners predicted the crisis of the 1970s, foreseeing that the global scene was going to change completely and permanently, but they were unable to get this through to the operating companies. Planners realised that their task was no longer to give out information, but to help managers rethink their worldview. They got managers to think through the likelihood of various future scenarios, and to consider how they would deal with each one. It was clear that different action would need to be taken in different contexts. As a result, when the OPEC oil embargo suddenly became a reality, competitors centralized control and took charge, whereas Shell did the opposite: they gave their operators more room to manoeuvre. As a result, they moved from being the weakest of the big oil companies to the strongest.

Need to reform relationships. In a traditional organisation, 'merit' means doing what the boss wants, 'openness' means telling him what he wants to hear, and 'localness' means doing the stuff the boss doesn't want to do. The key ways to change this are recognising your assumptions, and finding how to learn from conversations. Scenarios offset the tendency for people to implicitly expect a single future, and makes them more prepared and responsive to changes. It is less important, however, to make perfect plans than to use the process of planning to accelerate learning. The goal is not agreement: many mental models can exist at once, but they need to be continually tested in an atmosphere of truthfulness. People do not mind so much if their view is not implemented, but they do mind if they feel they knew best but never got to have their say. In conversations, we need to cultivate a combination of advocacy (stating your view) and inquiry (understanding and testing the other person's view). Only advocacy will result in each side putting their own view more and more forcefully without either understanding the reasoning of the other. Only inquiry means people are hiding their real views so they cannot be properly tested.

11. Shared vision

Having a shared vision in an organisation will mean people start to work together, plan for the long term, and rise above pettiness. It's the answer to the question 'what do we want to create?' A vision is truly shared when two people are not only committed to similar visions, but are committed to one another having it.

Shared visions emerge from personal visions. They are not created at the top and sent down, although much of the initiative may well come from the top. It's not about 'selling' the vision so that people are persuaded to comply with it, it's about people 'enrolling' in the vision and being committed to it. People may be genuinely compliant

with the vision: they may feel that it will be of benefit to them, or trust the people who came up with the vision, and they will obey all the rules of the game; but if they are actually committed they will be part of the force creating the vision, rewriting the rules when they are no longer the right ones. People aren't used to being committed at work: no-one has ever asked them for commitment before, and they have to learn what it means, perhaps through training with something they *will* commit to, such as a health programme. You can't make people commit, however: it has to be a free choice.

The three parts of a vision are the dream (what?), the purpose (why?) and the core values (how?). Negative visions spent energy preventing things when they could be creating. They suggest powerlessness to shape the world, and they are always short-term: you can only pull together in a crisis until the crisis is over.

The growth of visions is a reinforcing loop: as people become enthusiastic about it, they talk about it, other people get interested, in the ensuing discussions the vision is clarified and developed and people become more enthusiastic... The loop may run up against various limiting processes:

✠ If people who do not agree with the vision feel threatened and ignored, they may get increasingly resentful as the vision spreads. The way to remove this loop is to make sure their views are properly heard and taken into account.

✠ If people see the difference between the dream and the reality they may become discouraged. This is because of an inability to hold the creative tension which drives progress towards the vision. The solution to this problem is in the 'personal mastery' described above.

✠ The emerging vision may get swamped by the daily demands of current reality. To break this loop, ways must be found to spend less time and effort on fighting crises and make space for new stuff.

✠ If people forget their connection to one another, stop asking 'what do we want to create?' and start proselytizing the official vision. The quality of conversation is eroded. There is a need for continual care to nourish the vision-building process and not compromise it because of lack of time.

Visions fail when they are disconnected from systems thinking: people do not believe they can really shape their future or see how it could be done.

12. Team learning

If you devolve power to the local in an organisation, you have to be confident that the organisation has a shared vision – or at least is moving towards one – otherwise it will not be possible to move forward as everyone pulls in different directions.

Team learning has three dimensions

✠ the need to think sensibly about complex issues, tapping the potential of many minds to be more intelligent than one mind)

✠ the need for innovative, co-ordinated action, when each member can be counted on to act in ways that complement the others

✠ the role of members on other teams

and two necessary skills:

✠ **discussion**, where different views are presented and defended to find the best course of action at the time;

✠ **dialogue**, where there is free and creative exploration of complex issues.

Dialogue: the thinking which shapes the world is collective, but incoherent. It's no good thinking coherently as an individual as you can't change the world on your own. In dialogue, people begin to see the stream of common meaning, instead of just the leaves which they gather from the surface and perceive as their own thoughts. For it to take place everyone needs to acknowledge and suspend their assumptions and regard each

other as equal colleagues, and there must be a facilitator (at first anyway) who keeps people from starting arguments or abandoning the rules.

Productive discussion converges on an agreed course of action; whereas dialogue diverges into a richer understanding of a complex issue, and if courses of action emerge, it is as a by-product.

In a good team, conflict is turned by a kind of alchemy into creativity; whereas in a bad one, it is either covered up under a presentation of agreement, or destructive and polarizing. Both require defensive routines, for example, managers who have to present themselves as decisive and capable by not admitting doubts or revealing the thinking behind their decisions. Defensive routines are walls which block learning, and they need to be defused by bringing doubts or fears into the open.

Team learning requires practice if it is to improve.

Systems thinking, the fifth discipline, is required for team learning as it allows a shared picture of the matter to be created. If people think linearly in terms of cause and effect, from their own point of view, they will reach nothing but watered-down compromises which are full of contradictions, which no-one else can understand. Moreover, when systems archetypes are used, conversation becomes less personal: it is no longer a question of who to blame, but of the forces at play which have caused the situation.

IV. PROTOTYPES

To get from an invention (powered flight) to an innovation (commercial air travel) you need many prototypes to discover and solve problems, and bring together crucial elements into a whole: creating a synergy. This is dangerous (some of the aeroplanes will crash – some of the organisations which attempt to learn will fail), but it is often from the failures that most is learnt. This section gives some prototype technologies for making use of the five disciplines.

13. Openness

In a 'political environment', 'who' is more important than 'what', and everything involves playing games. Challenging this atmosphere begins with building a shared vision to motivate people beyond self-interest, but it also involves openness. The assumption that people are *not* simply motivated by self-interest, but genuinely want to be part of something bigger, can be a self-fulfilling prophecy (as can the opposite). Nurturing this assumption can be begun by getting people to discuss in small groups 'what's really important to them', and they will begin to realise that the others are not only self-interested.

One company decided that they wanted to be committed to telling the truth, but one of the salespeople objected that if they were truthful, sales would fall, because none of the other companies told the truth about delivery times so their product would appear to have far worse delivery times. The CEO said he didn't want to be part of an organisation which sanctioned lying, and that, in time, the company would build up a reputation for reliability which would serve them better in the long term. After some discussion, the salespeople trusted the rest of the team not to blame them if sales dropped off in the short term, and the vision of a company known for its honesty and reliability began to grow.

Openness is needed to allow a vision to catch on: in a political organisation people will say 'whose vision is this anyhow?'

✞ **Participative openness** means the freedom to speak one's mind, but can often be a front for an organisation where ideas are put forward only to be ignored, and no-one changes their mind as a result of anyone else's freedom to speak.

✝ **Reflective openness** is when you are willing to acknowledge that you might be wrong, and use other people's ideas to test and modify your own. This involves skills as well as an attitude, such as were described in the Mental Models chapter, for example, being able to tell the difference between a fact and a generalization based on the fact.

Openness is undermined by certainty. If you pin big sheets of paper on a wall and try to draw a diagram to explain the causes of global poverty, you'll soon realize that it is far too complex for anyone to completely figure out. When we are children, our parents have the answers: in education, teachers have the answers; so we assume that at work or in politics the people at the top ought to have the answers and if things go wrong they must be corrupt or incompetent. This enables us to avoid taking responsibility and just criticise those who do. The compartmentalization of knowledge makes things appear straightforward, but life doesn't come to us in compartments: while some problems, like 'what's the shortest route from Scone to Forfar' is a convergent problem (if everyone considers it intelligently, they will reach the same answer), others, like 'what's the best strategy for the church in Angus?' are divergent (the more intelligent people study it, the more answers you'll get). This is where dialogue is important: people need to suspend their certainties to explore a complex issue openly.

Openness is a quality of relationships, so building relationships is one of the highest leverage points for creating openness. Even if this is begun with only two or three people in an organisation, this creates a microcosm of a learning organisation from which others can learn. It's about *agape*: commitment to serve one another, and to be vulnerable oneself.

We value freedom, but freedom from restraint can be hollow if you are trapped in a system you don't understand – as in the beer game, where the participants were free to do what they liked, but found themselves helpless to improve their situation. The learning organisation gives people the freedom to create things of value and meaning.

14. Localness

People only learn when they have a genuine sense of responsibility for their actions. If they think someone at the top is in charge, they don't need to know anything. For this reason, learning organisations will be 'localized' organisations. Localness is vital in times of rapid change as only people on the ground have current information on customer preferences, competitor actions, market trends, etc. Many senior managers are very afraid of devolving power: what will their role be? The answer is that their role is to continually enhance their organisation's capacity for learning. There are also legitimate concerns: how will the organisation achieve co-ordination, synergy, collaboration?

There is a risk in devolving power. Some organisations have tried and failed, either because managers could not bring themselves actually to give up control. Others found that local decision makers did not make good decisions. Localized organisations will only succeed if they are also learning organisations, which invest in improving the quality of thinking, team learning, shared visions and understandings. Organisations sometimes pretend to decentralize, but take back power as soon as things get difficult, showing how little they trust the local managers, and that they do not really consider local responsibility to be the answer to problems. As a result, local managers never really do take responsibility, and never learn to make decisions. Those at the top have to really believe that localness, with its excitement, enthusiasm, adaptability, and human growth, are worth the risk: it has to be part of the organisation's vision.

The learning disciplines are all important: for example, there needs to be an ongoing 'visioning' process where local and organisational visions continually interact to create a common identity connecting thousands of people around the organisation. There needs

to be systems thinking or local decision makers will not make decisions that are good for the whole organisation. The 'tragedy of the commons' is a recurring system: for example, the sub-Saharan Sahel region was fertile grazing land, but from the 1950s with the help of aid agencies who dug wells, and a good market for cattle, it made sense for all the herdsmen to expand his herd of zebu: by the 1970s, there was chronic overgrazing and desertification: 80% of the cattle died, the population was destitute and the land ruined. The tragedy of the commons occurs when there is a resource shared amongst a group of people, and individual decision makers are free to exploit the resource and achieve short-term gains, but without repaying what they have taken. By the time the error is realised, it is too late to save the commons and all the individuals fall within it. In organisations 'commons' might include money, technology, community reputation, good will of customers etc.

Conserving 'commons' involves:
✟ identifying what the 'commons' in the organisation are
✟ identifying what actions by local managers would risk depleting them.
The next question is, who will manage the 'commons'? There may need to be a person or group dedicated to this task, which should be done centrally by those who have an overview: this is part of central management's new role.
The manager's role becomes that of 'researcher and designer': the research is to understand the organisation as a system and the forces driving change; the design is of learning processes whereby managers throughout the organisation come to understand these systems and forces.

Risk-taking is important as part of a localized organisation, and to enable this, *forgiveness* is necessary, since some risks are bound to fail and be costly. When the new head of New Products in Johnstone&Johnstone saw his first product idea fail dismally, he was summoned to General Johnstone's office, who said 'are you the one who just lost us all that money? I just want to congratulate you. If you are making mistakes, that means you are making decisions and taking risks, and we won't grow unless you take risks.'

15. A manager's time
In a Japanese firm, if someone is sitting quietly, people will assume they are thinking and will not interrupt them: they will wait until they are up and moving around. In America, the opposite is the case: if someone is sitting still people assume they are not doing anything important.

Managers complain they do not have time to think, but experiments where they play out their roles in simulations suggests that even if they do have time, they usually just implement a strategy, and when that fails they try another, and another, without reflecting on why strategies worked or failed.

In a well-designed organisation, the only issues which reach managers should be complex, 'divergent' issues: 'convergent' ones, which have a right answer, should be dealt with lower down. There is a culture that managers have to be continually making decisions and doing things which needs to be challenged: incisive action is important, but it is not the same thing as incessant activity.

16. Ending the war between work and family
Concern over the work-family issue has dramatically increased amongst participants in the author's Leadership and Mastery programmes. The pressures arise from organisational goals and objectives which exclude personal goals and objectives. All the learning organisation disciplines tend to break the taboo of work/life balance: fostering vision will mean fostering personal vision; systems thinking means you can't see people as having two separate lives.

Being a good manager in a learning organisation involves the same skills as being a good parent: helping people to identify and pursue their own visions, 'moral suasion', empowering people to make choices. Supporting people in one will give them important skills for the other. People also need to be encouraged to build a personal vision which includes their whole life, and to commit themselves to it, rather than feeling they are not pulling their weight if they decide they will not attend evening meetings.

17. Microworlds: the technology of the learning organisation

Microworlds are computer simulations which allow you to compress space and time so as to see the results of a strategy on a whole organisation over several years, allow you to isolate individual factors so you can see the effect they have, etc.

Although it seems unlikely that we'll make much use of them in the church, one example was interesting: a simulation which showed how quality in service industries tends to decline. It's much easier to measure how many customers you are serving, the cost, and the revenues generated, than quality of service which depends on nebulous things like the customer's expectations, the job satisfaction of the staff, etc. As a result, managers interested in keeping the statistics favourable have allowed standards to slip, resulting in a poor service throughout the sector: airlines overbook as a matter of course, nurses are too overworked to give compassionate care. The problem is that since standards fall throughout the industry – or sector – customers have nowhere else to go, expectations are lowered, and companies look to one another for standards, reinforcing the decline.

18. The leader's new work

Our traditional view of leaders is as heros who appear in a time of crisis and sort things out. This is based on the assumption that most of us are powerless, and change can only be effected by someone charismatic and extraordinary. But in a learning organisation, leaders are *designers, stewards* and *teachers*. They are responsible for the learning throughout the organisation.

Designer: this is not about continual restructuring and fiddling: it's about understanding the whole shape of the organisation, and guarding against getting into a groove where, for example, you focus on one of the disciplines to the exclusion of the others, or get stuck with structures that are no longer relevant. It is about considering which of the learning disciplines should be developed first.

Steward: There is a dominant philosophy around of pragmatism: that you should do what works at the time and not try to find any larger system to guide you. This is a result of the failure of the nineteenth-century big explanations, like Marxism. However, this leads to reactive leadership and crisis management: leaders have to create a larger story of which they are the stewards.

Teacher: People mostly see reality as a series of crises, pressures, problems to be reacted to: a set of limitations. Artists, on the other hand, see their paint, clay or cloth as a material with potential: although they are limited in what they create by the properties of the material, and have to work at it to get the effect they want, they are creating, not reacting. The leader as teacher must enable people to see their reality as something they can work with creatively. It's important, however, to combine vision with an unswerving commitment to truth: many leaders have been destroyed by putting the former above the latter and become 'true believers' rather than learners.

The five disciplines might be called 'leadership disciplines' as they are the things the leader of a learning organisation needs to excel in.

The responsibilities of being part of a learning organisation come only as the result of individual choice. This is not the same as a desire. 'I want' is passive, and is a state of

deficiency. 'I choose' is active, and a state of sufficiency. The leader has to start by making the choice herself, to create the environment which will encourage everyone else.

V. CODA

19. A sixth discipline?
Air travel didn't become a really big industry until two more technologies came along to add to the original crucial five: the jet engine and radar. Learning organisation technology is still in its infancy and there is plenty of development to come.

20. Rewriting the code
We need to learn a new way of thinking. Just as we can master complex activities so as to accomplish them without thinking about them (driving in busy traffic but still able to carry on a conversation; or playing a Mozart sonata while thinking entirely about expression and aesthetics), so we can nourish a way of thinking in terms of systems and the big picture which means we can stop consciously looking for the feedback loops at every point: they will be self-evident, and we will be able to concentrate on the bigger picture. This is a step of learning which has all sorts of implications for humanity, not just running organisations.

21. The indivisible whole
Astronaut Rusty Schweikart was on the Apollo mission which looked down on the earth for the first time, and he tried to describe the experience:

> You look down there and you can't imagine how many borders and boundaries you crossed again and again and again. And you don't even see 'em. At that wake-up scene – the Mideast – you know there are hundreds of people killing each other over some imaginary line that you can't see. From where you see it, the thing is whole, and it's so beautiful. And you wish you could take one from each side in hand and say, 'Look at it from this perspective. Look at that. What's important.'

That's systems thinking not at a rational or intellectual level, but as a direct experience.