2.2 Key 2 - Building good people to build good products

People, and respect for people, are very much in evidence in the approach to leadership of world class manufacturers; an approach which is fascinating but not well understood by many. The essence of learning at these world class businesses is that you earn knowledge through developing a questioning mind, keen senses and dirty fingernails. The good coach creates the right environment and asks the right reflective questions, but never directly reveals the path (see chapter 6 on Flexibility for five great stories on exactly this subject). The path is often tough for us to follow, as it is full of subtleties and takes time to tread.

Taking time is not something we generally applaud in the west. Mastery of an art, however, is driven by repeated practice and a focus on the process. If one eye is impatiently fixed upon the destination, there is only one eye left to find the way. Life would indeed be much simpler if our Manager/coach just told us the answer to a question. This does not build for the future and will not foster people who are engaged in their work or build strong team leaders, strong supervisors and strong managers.

There is a phrase in Japanese – *Monozukuri wa hito zukuri* – the essence of which is to build good people to build good products. Good people are not built by gifting them knowledge. How many of us, as children, learn that a hot iron should not be touched? Surely it should be enough for our mother to warn us. I'll raise a mildly scarred hand into the air here to concede that, in my case, being told a great many things was rarely enough. How many of us gained confidence solely by being told that we are capable of riding a bike? Riding the bike – and falling off it occasionally – builds skill, experience and the confidence to encourage others into the saddle.

The manifestation of this inherent coaching culture is that such companies want their managers to say neither 'Do it like this' nor 'Do it your way', but 'Follow me and we're going to figure this out together'. 'Lead the organisation as if you have no power' is the oft-quoted mantra. Each level of management must visualise the

problems for people to get to work on them.

One of the reasons why better manufacturing businesses have a healthier ratio of team leaders to direct associates, than supervisors to team leaders, is the belief that the team leader role goes beyond the vague idea of keeping an eye on the troops and process practiced by most. Their belief is that improvements are made, costs are reduced and the timeline is reduced by empowering many people to solve many small problems at the lowest level in the business.

Thus, team leaders and supervisors spend their day confirming the process – think area patrols and check sheets – and trying to get to the root cause of problems by running small PDCA trials. 'We haven't got time for this' is the response from a typical UK manufacturer.

Consider the statistic that roughly 70% of a typical team leader's – unstructured! – working day is spent doing two things: hunting for parts and deciding what to make next. The better manufacturing companies have freed up some of this 70% by developing lean material supply systems – internal and external logistics – and using simple levelling and pull mechanisms to make the decision of what to make next very clear.

The void created by eliminating this wasteful work should be then filled quickly with structured work: process confirmation, responding to andons, problem-solving, and promoting kaizen for example.

So, 'respect for people' involves training and encouraging people to visualise and solve problems. Once again, we come back to the process. The question is not who was to blame, but what in the process was not robust enough to make it impossible to make a mistake.

Jidoka or autonomation – automation with a human touch – is one of the pillars of the Toyota house. It promotes both quality and respect for people. Jidoka has

several meanings, but essentially it is the ability to separate the man and the machine. Sakichi Toyoda's automated loom, which stopped itself when a thread broke, thus avoiding the wastage of a poor garment, was initially a productivity boon. It also, more notably, gave rise to the idea of building in quality, not merely inspecting it in. This great industrial shift in labour productivity promoted greater respect for people as asking a person to watch a machine, in case it goes wrong, clearly has no respect for the abilities of that person – beyond the innate ability to see!

Quality consciousness has again moved on with the development of Jikoutei-Kanketsu (Built-in Quality with Ownership); a practical, deeply integrated approach to the paradox at the core of Quality. If Quality IS everyone's responsibility, as received wisdom tells us, then precisely what should I do as an individual? Everything? Something? If the answer is 'something', what precisely should that something be if I am an Industrial Engineer or a Buyer or a Materials Controller?

The Jikoutei-Kanketsu approach to Quality is one of those open secrets at the heart of TPS whereby the entire product development lifecycle from concept to cut-in, and beyond, are considered. For this book, we'll limit ourselves to Jidoka.

Before a discussion of the machine side of Jidoka, let's consider people again. Jidoka refers not only to process error-proofing, but also to empowering people to stop the line when they spot an abnormality or problem and find out what has gone wrong, to get to the root cause and prevent recurrence. A problem, tightly defined in this scenario, being anything that deviates away from the standard. The line worker uses an andon to get the attention of his team leader quickly when a problem occurs.

Quickly refers not only to the speed of recognising a problem, but also the speed of getting to the scene. Ask any detective how important it is to get to the crime scene whilst the body is warm and nothing has been touched. The andon pull may or may not stop the line based on the response time and diagnosis of the team leader.

In actuality, most final assembly plants operate fixed position stops and buffer parts of the track to minimise disruption. Very few factories – and most of those that do are Japanese – actually empower people to stop their own work and the work of those around them. What is the rationale for doing such a counterintuitive thing? The answer; stopping for a few seconds now is cheaper, safer and better for quality than reworking later.

Imagine the quality risk and cost of stripping and reassembling a car in a corner of the factory to get to a small internal component that has failed. Let's make the heroic assumption that you have been lucky and the problem affects just the one car (more likely hundreds) by the time you find it. Even if you 'solve' the problem through rework, how do you know you've rebuilt it correctly to spec? If we rely primarily on the end of line inspector, value has been added to the bad part from fabrication process or supplier, so that the scrap cost now equals labour cost + the cost of the other good parts assembled to it. Feedback from end-of-line inspection is too late, not dissimilar to using a post mortem to advise someone to stop smoking.

Finally, rework is not good for morale long term. We could debate the short-term benefits of sustained overtime, but suffice to say that this has both a business and personal cost; and shows a fundamental disrespect for people as rework is clearly wasteful work.

One word in the preceding section should be stressed: abnormality. A prerequisite to using andon successfully and building in quality is spotting abnormalities. However, to spot what is abnormal we have to define what is normal. Organising your working environment and processes sufficiently to make clear what is normal takes dedication and control. Hence, the culture of stop, call, wait – stop if you see a problem, call your team leader and wait for them to arrive – is claimed by many but truly pursued by few. In their most fundamental forms, 5s, Standardised Work and Visual Factory exist to make abnormality clear to us, quickly.