

Training Staff Effectively In Lean Manufacturing And Six Sigma – How Apprenticeships Can Work And Why They Sometimes Don't!

Since the Skills Funding Agency made their announcements about the Apprenticeship Reforms and the new Levy, back in October 2016, there has been an almost literal “storm” of information which has exploded onto the internet and bombarded organisations whose names are held on CRM databases everywhere. Most of this has focussed on the facts and of course Valkyrie Support Services is no exception with our having released a five page information paper to help anyone considering how they may be affected. One thing is for sure though – this does affect every organisation in the UK and even now many of us are only just beginning to consider the very real implications.

Not everybody is aware that there are existing Apprenticeship Frameworks which are currently being developed to become new Apprenticeship Standards, which are designed to train staff into new areas of competency – broadly coming under the banner of Continuous Improvement and including elements of Lean Manufacturing and Six Sigma. As I've said, these frameworks have existed for some time and have centred around an NVQ qualification known as Business Improvement Techniques.

BIT – “the NVQ about Lean Manufacturing”

Now the delivery of BIT, as it is abbreviated, has a very mixed reputation nationally. For every organisation which has had a good experience of it – that is to say that they have seen demonstrable bottom line benefits as a result of it – there are at least two who found it either a waste of time or, worse still, damaging. The reason for this is down quite simply to the sheer range of quality which has been allowed to exist in the Training Providers and Colleges out there who have been selling and delivering this kind of service.

There's really nothing wrong with the BIT qualification. If you take the very foundational level – which is a Level 2 NVQ qualification – the recipient has the opportunity to study and practice the following areas:

- **Health & Safety Compliance (never a bad idea to brush up staff understanding here)**
- **Effective Team Working (again, this can't be a bad thing)**
- **5S Workplace Organisation**
- **Kaizen – Continuous Improvement**
- **Visual Management and Visual Controls**
- **Problem Solving Techniques**

The latter four units give a person a rudimentary understanding of Lean Manufacturing principles and a capability of contributing to them....or at least that's the plan.

The trouble is the way that Providers have approached the delivery of this qualification has varied wildly over a long period of time. There are lots of reasons why delivery can be very ineffective such as:

1. **The trainer doesn't have a real grasp of the subject – so the recipient only learns to the most basic of levels. I've heard some NVQ assessors talk about BIT as being just Health & Safety and a bit of tidying up!**
2. **The assessor just wants to do a tick box exercise and will accept any evidence which is vaguely related to the above subject areas as proof of competence. Lack of effective regulation of qualification delivery will often allow for this to happen.**
3. **The approach is wrong – Providers sometimes focus on their own costs and margins rather than thinking about doing a thorough job of delivery and embedding knowledge and competence over a long period of time. Some models will throw the recipient into a couple of days of intensive training – the provider will then return periodically over a year (since that is the minimum duration for any Apprenticeship Framework) and try to gather evidence of the learner actually using what they have learned. Of course two to three months beyond the training, most tend to have forgotten what they covered. In fact I've come upon people who have supposedly achieved BIT Level 2 who literally remember nothing of the content.**

There is one very significant change included within the Apprenticeship Reforms, which I believe is a masterstroke – albeit nothing new (old Apprenticeships back in the 1970's used to do this). The change is that of independent end point assessment. It will no longer be up to the Training Provider to assess apprentice competence. Instead, it will be the job of the Training Provider, working alongside you, the Employer, to prepare the Apprentice for the End Point Assessment, which will be carried out by a third party organisation.

Whilst it is impossible for the system to eliminate any conflict of interest at all, this remains a very big step forwards. The End Point Assessment Organisations will be quite heavily regulated and will not want to jeopardise their hard won status (and it's actually very difficult to become an Assessment Organisation, I know, we've tried) by letting individuals get through certification who are not competent.

It means, furthermore, that the learner will need to receive a much better level of quality of training delivery if they are to have any chance of genuinely learning to understand and consistently apply Lean Manufacturing techniques – which they will need to be able to do, if they are to pass End Point Assessment at the end of the programme.

Funding – even if paid for by your Levy (see later – I've presented some examples as to how the funding works) is distributed over the length of an Apprenticeship programme. 20% of this is held back until the individual achieves, so that's a very big loss if an individual isn't ready for assessment.

Another profound change – Apprentices will only be allowed one re-sit. Simple fact is, if they aren't prepared, they will fail.

The ultimate result and upshot of this is also simple. Poor quality provision, cowboy outfits, crap provision (whatever you choose to call it) will die. It will be simply impossible for a Training Provider to deliver a sub-standard service and continue trading for very long at all.

So, those of us who have always tried to deliver qualifications like BIT properly are suddenly in a great position in that we can essentially build on what we've done as a strong foundation and just grow and evolve into the new Standards – rather than go back to the drawing board. There will be new Apprenticeship Standards developed around Lean Manufacturing and Six Sigma, in fact they are already in development. These will be similar to BIT but will cover a more broad range of subject areas taking in units, which are currently optional and limited in the number which can be selected. Some of these subject areas are absolutely key to many really effective Lean Manufacturing initiatives such as:

- **Total Productive Maintenance (TPM)**
- **Single Minute Exchange of Dies (SMED)**
- **Flexible Manpower and Production Systems (concepts of Takt Time and Continuous Flow)**
- **Project Management**
- **Policy Deployment (Hoshin Kanri)**
- **Mistake Proofing (Poka Yoke)**
- **Standardise Work and Operating Procedures**

There are many providers out there whose staff really don't have a grasp on many of the above subject areas and who tend to stick to the very basics because that is the limit of their knowledge and experience.

Higher levels of the new standards are also likely to include Six Sigma – now this also currently exists within the BIT qualifications as a different pathway within the same qualification (called the Quality Pathway), although again, a lot of Providers tend to keep this very quiet because they don't have the capability (often just the mathematical capability) to deliver it. Subject areas typically include:

- **Six Sigma Process Mapping**
- **Six Sigma Methodology**
- **Six Sigma Metrics**
- **Basic Statistical Analysis**
- **Statistical Process Control**
- **Measurement Systems Analysis**
- **Process Capability Studies**



The Apprenticeship Levy – coming to you in April 2017!

Over the past few months I have travelled around many of our customers in an attempt to help people to understand what the Apprenticeship Levy is all about. It's become fairly common knowledge, I'm pleased to say, that this is going to affect everybody. It will. But explaining everything for the first time is hard and can initially seem quite complex.

In my now not quite so limited experience of doing this I'm finding that it is example illustrations which are the most helpful for people to digest. So here are a few!!

Let's deal with the Levy and the new Funding Regime first.

Example One

Organisation with Wage Bill of £2 Million

Levy at 0.5% of Wage Bill = £10000.00

Less £15000 allowance = £0.00 Levy Bill

This organisation is a non-levy payer. Apprenticeships procured as they are now and then using the DAS from 2018 onwards. Government fund 90% of total cost. Employer has to pay 10%.



In this first example we introduce a few terms and concepts. A lot of people have banded around the fact that if your wage bill is less than £3million per annum, you will be a non-levy payer. In actual fact all UK organisations are subject to the levy. The only reason why you won't pay anything is because of the £15000 levy allowance which also applies to everyone.

If you have no levy bill then the chief difference from April 2017 onwards is that you will no longer be able to procure Apprenticeships for free. Not from anywhere – including Colleges – the playing field has been well and truly levelled. Apprenticeships will cost 10% of their total value. As a rough indication that could be anywhere between £150 and £2700 per person. The reality is that this is negotiable and very much dependent on the Apprenticeship Standard or Framework which you select. Most, are likely to cost a contribution of around £600 to £900 per person.

Some might consider, immediately then, that this change will mean that fewer people are given the opportunity to train and fewer new apprenticeship vacancies will be created, simply because organisations don't have the budgets necessary to spend this sort of money in large volume. However, there are some key incentives involved, such as the £1000.00 which is payable to all employers taking on or training a 16-18 year old. Furthermore, any small employer – defined as an organisation with up to 50 employees – taking on a 16-18 year old, will have their contribution waived.

Further to this, the new Apprenticeship Standards, which are fast appearing and becoming deliverable, are bigger and better. They demand more of the people who undertake them but ultimately, for you as the employer, you end up with somebody who is more skilled, more knowledgeable and who will perform better for you. The price of, what is basically a few hundred pounds, is fairly negligible over a longer period of time. If you start to talk about Apprenticeships in the subject area of Continuous Improvement or Process Engineering – well then your cost of £1000 really is negligible. You are likely to get a far greater return on investment.

I have yet to deal with another mysterious term which crops up here, that of the DAS. This stands for the Digital Apprenticeship Service. Essentially this is a directory of approved Training Providers and shows who they are and everything which each of them offers. Only Providers who have gone through a pre-qualification process known as the RoATP (Register of Apprenticeship Training Providers) are allowed on here, so there's a much greater level of control of quality provision. Everyone on this Register, without exception, is subject to OFSTED inspection and Skills Funding Agency auditing.

Example Two

Organisation with Wage Bill of £8 Million

Levy at 0.5% of Wage Bill = £40000.00

Less £15000 allowance = £25000.00 Levy Bill

Government uplift = £2500.00

Total Levy Pot = £27500.00

This organisation is a levy payer. Apprenticeships procured using the DAS and paid for in full using the Levy. Once the Levy is used up, procurement can continue as a non-levy payer and once again the government fund 90% of this.

So here we have the Levy Payer. The organisation wouldn't necessarily be enormous but certainly there would be a significant number of employees and the organisation would quite possibly be multi-site. In this case, the first Apprenticeships which the Organisation decides to buy in, are paid for in full by the Levy Pot. Now earlier we recognised that an Apprenticeship carries a typical value of around £6000 to £9000. This therefore means that you will only be able to fund around three to four Apprenticeships using the Levy Pot.

To fund a group of, say, an intake of 10 people on an Apprenticeship carrying a value of £6000, you would need to have a wage bill of approximately £12 million. Once the Levy Pot is used up, Apprenticeships continue to be funded as they would be if you were a non-levy payer. You pay 10%, the government pays the other 90%. The £1000 incentive for a 16-18 year old still applies too, whether or not they were levy paid or government paid.

Example Three

Organisation with Wage Bill of £2 Million but belonging to a group of Connected Companies with a Wage Bill totalling £10 Million in UK operations.

Levy at 0.5% of Wage Bill = £10000.00

£15000 allowance has to be distributed amongst the companies. Only one allowance is allowed per group of connected companies. The distribution as decided upon by the group itself each year.

Let's say that the allowance is split across the group according to proportion of wage bill – this would mean that your organisation has an allowance of £3000.00.

Less Allowance of £3000.00 = £7000.00

Government uplift = £700.00

Total Levy Pot = £7700.00

This organisation is a levy payer. Apprenticeships procured using the DAS and paid for in full using the Levy. Once the Levy is used up, procurement can continue as a non-levy payer and once again the government fund 90% of this.

EXAMPLE

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Groups of Companies which are affected as above are as defined in the Corporation Tax Act 2010. Basically if your organisation is owned by another company, you will be connected. Furthermore, if your owner (whether this be a company or persons) owns other organisations besides yours, you will be considered as connected to them too.

The Levy Allowance must be distributed between all of the UK organisations within the group of connected companies. So – if you are a UK registered company owned by a group of companies who all operate from, let's say, Sweden, you will receive the full allowance – because the Swedish companies are not paying a wage bill in the UK.

Get Involved!

This is the most savage rate of reform which the Work Based Training sector has seen in over 25 years. However, working together we can turn this to advantage and indeed the distinct advantage of our organisations and the UK as a whole – goodness knows these days we need it don't we?

Lean Manufacturing and Six Sigma principles can offer enormous opportunities to any business in any sector. The reforms not only give access to staff training in these areas, at low cost, but they also ensure in depth and high quality of training which will make the individual recipients extremely powerful tools for you as an employer to drive your organisations forwards. Apprenticeships are aimed at those who are moving into new roles or who are being given significant new responsibilities

– so now is the time to consider moving select members of your teams into Continuous Improvement roles and the frameworks to do this most effectively are on their way.

I will leave you with a mental image (hopefully) which has made me smile this week. Two men, pushing a wheelbarrow, which has a square wheel. One is pushing hard and the other is having to pull the barrow every so often, each time one of the square faces of the wheel has to be lifted.

One of the men is speaking. The quote is – “We haven't got time to improve.....”

Sound familiar?

www.vsslearning.co.uk

 **email: info@vsslearning.co.uk**

 **Phone: 01889 566263**

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