Meeting quality standards

- Do you work to clear standards of quality?
- How well do you meet those standards?
- Quality standards enable you to measure your team’s performance.

Quality, as fitness for the customer’s purpose, isn’t always what organisations strive for. Too many focus on producing the goods and services which they are good at producing (or think they are good at). Or they decide what customers should want rather than what they do want.

This view of quality is called production centred. It may involve producing very good products or services, but they don’t always meet customers’ requirements.

The Japanese quality revolution

The Japanese quality revolution, as it is sometimes called, changed all this. It began by hitting manufacturers in Britain, in the rest of Europe and in North America very hard. The car industry was the worst hit. Japanese car companies started to sell competitively priced cars with radios, wing mirrors, and other extras as standard.
Meeting quality standards

These were all extras on cars that were being made in the west. Although Japanese cars may not have looked very attractive, and may have suffered from mechanical problems at first, they were much closer to what customers wanted. The Japanese car companies, and other Japanese manufacturers had realised that they had to produce to the standards that customers wanted, not the standard that they set for themselves.

Standards are ways of describing goods and services which reflect customer requirements. In the BS2 session Understanding quality you learnt that customers use quality characteristics to judge a product or service. These are what customers would like. Standards are what suppliers aim to deliver consistently. Consistently means that they can always produce the same quality.

Car customers wanted - and still want - cars which are reliable, safe, well fitted out, comfortable, easy and cheap to run, and which they like to look at. Standards are a way of describing these requirements in a way that can be measured and controlled by the supplier.

Exercise

Look at each of the quality characteristics on the left, below. If you were a car manufacturer, what standards would you use to judge if you were meeting the customers' requirements? Write down something that you would do to make sure your car fitted the particular requirement. The first two are done for you.

<table>
<thead>
<tr>
<th>Quality characteristics</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliable</td>
<td>Starts first time 999 times out of a 1,000 or 99% of all cars produced have no breakdowns in the first 15,000 miles.</td>
</tr>
<tr>
<td>Safe</td>
<td>All models fitted with anti-skid brakes and crash protection.</td>
</tr>
<tr>
<td>Well fitted out</td>
<td></td>
</tr>
<tr>
<td>Comfortable</td>
<td></td>
</tr>
<tr>
<td>Cheap to run</td>
<td></td>
</tr>
<tr>
<td>Look attractive</td>
<td></td>
</tr>
</tbody>
</table>
A well fitted out car will have a range of extras, such as a radio and CD player, electronically adjustable seats and perhaps a ‘satnav’ system as well, and similar 'goodies', as standard.

Comfort is hard to judge, but adjustable seats, plenty of leg and arm room, and good seat support will help.

A car is cheap to run if it has long service intervals (periods between services), doesn't need any special care, is economical with fuel, parts and servicing aren't expensive, and insurance (and car tax) costs are low. It will look attractive to people who like cars with certain features - and different people judge things differently - but a choice of colours and well laid out instrumentation will help.

Of course, different people will have different requirements. This means that different goods and services will satisfy different people. They will be fit for the purpose for some people, and not for others. Quality is very personal. This means that good quality is defined by how well it fits a particular customer's requirements.

The standards used to judge quality form the basis of an organisation’s **quality control systems**, which you will look at next. Quality control is the way that an organisation makes sure that its products and services meet the quality standards it has set.

As a team leader you need to know what these standards are, so that you can ensure that you and your team are meeting them. You need to recognise that the way that customers judge your organisation's goods and services should be the basis for these standards. Your job is to make sure that your team recognise their importance and meet the standards consistently.

**Exercise**

Do you know what standards your team is working to? How far do you think these are based on what customers require?

---

```markdown
Exercise

Do you know what standards your team is working to? How far do you think these are based on what customers require?

---
```
Quality assurance is an organisation’s approach to ensuring that its goods or services are ‘fit for purpose’ and meet customer requirements, and what it does about it if they don’t. It involves finding out what those requirements are, making sure that it has the people, equipment and procedures in place to produce goods and services that are fit for purpose, that its suppliers supply goods and services that are fit for purpose, and by setting standards for its goods and services that reflect those requirements. Quality control is part of this quality assurance process and involves checking that those standards are being met.

Case Study

**Thomas Pepper & Co**

Phil leads the goods inward inspection team for the company, which makes kitchen scales. The scales use flat pieces of metal called leaf springs. These bend when the cook puts ingredients in the bowl. These leaf springs have to be a certain thickness all over, or they will bend in different ways and so they won’t show the correct weight. Thomas Pepper asks the supplier of leaf springs to make them all a particular thickness. This is the standard they want.

But there is a problem for Phil and his team. Machines cannot produce metal the same thickness all over. It may look the same, but it can vary by thousandths of an inch (or hundredths of a millimetre). The difference may only be a few molecules, so small that only the most sophisticated machines can measure them. Phil and his team check that a sample of the parts supplied don’t differ too much from the standard that is set.

**US Autos**

Jeannie leads the customer service team for a specialist importer of components for classic American cars. The company wants its customers to be satisfied with the service it offers. Jeannie measures that by asking a sample of customers if they were satisfied. The company would like everyone to say that they are very satisfied.

Jeannie knows that it is very difficult to satisfy all your customers all of the time. Most customers say they are very satisfied. A few just say they are satisfied. But one or two say that they are not very satisfied. Jeannie is happy if at least 70% say that they are very satisfied and at least 90% are satisfied or very satisfied.
Meeting quality standards

Both the case studies show how variation in standards can occur. Variation means that the actual performance differs from the desired standard, even if only very slightly. Every aspect of goods or services for which standards have been set is likely to have some variation. What you need to aim to do is to keep the level of variation down to an acceptable amount. A process (the production of a good or service) is said to be in control if it is within these acceptable limits of variation.

Phil measures leaf springs on a special gauge which can tell if the metal is within the range of thickness which has been set as the standard. This is a tiny bit either side of the desired thickness, to allow for variation. Jeannie would like 100% very satisfied, but she allows for some variation, by aiming for 70% being very satisfied, and for 90% to be satisfied or very satisfied.

Case Study

Rebecca handles insurance claims. She deals with claims when cars have been in crashes. Her customers expect her to respond very quickly to claims, and she works to a standard that all claims are settled within eight weeks, and 75% within three weeks. The reality is that she settles some claims within a few days, most - around 90% - within six weeks but a few take several months.

Surveys of customer satisfaction have found that many are disappointed with the way that claims are dealt with. They say that the company is very quick to get premiums paid and that a payment one day late can lead to a policy being cancelled but that claims can take weeks and weeks.

Rebecca is very offended when she learns about this. She points out that she turns round some claims very quickly and that this has been ignored. She also says that the claims which take a long time are frequently the fault of customers who supply incorrect information.

Exercise

Do you think that the process which Rebecca is responsible for is 'in control'? Why or why not?
Meeting quality standards

Being 'in control' means that the process is within the limits set for variations in quality. Rebecca's service is not inside the limits set, so it's not in control. Although she may be well within the limits for some customers, she is well outside them for others. The process is not in control.

**Inspection**

Many organisations use inspection to check quality. Inspection means checking what is being produced against set standards. Sometimes this is done by a separate group of inspectors, but many organisations expect teams to inspect their own work. Inspection is one way of checking the quality of what is being produced, but it isn’t quality control. Quality control means

1. setting standards,
2. checking performance against those standards (including inspection), and
3. taking action where performance is below standard.

It’s the third step which is the most important.

**The costs of quality**

High quality isn’t always free, but low quality always costs money. That's because poor quality means rejects, waste and rework (to put things right). It also means lost customers and a poor reputation, making it hard to gain new customers. These are all called failure costs.

The thing that most organisations do when they have high failure costs is to start checking carefully - to spend more on inspection costs. They hope the extra inspection costs will be paid for by savings on failure costs, and often they are, but only a little. To really reduce failure costs what is really needed is an investment in prevention costs, to stop the causes of failure. Continuous improvement is all about finding the causes of failure and correcting them - prevention. Sometimes prevention may mean spending money. As a team leader you need to be aware of the costs of overcoming quality problems and the costs of not doing anything, the failure costs. That way you can make a case for addressing the causes (prevention) rather than simply spending money and time on inspection to find the failures when they occur.
Complete the following exercises. Refer back to the session if necessary.

A. Why can a process be in control if there is still variation in performance against standards?

B. Complete each sentence. Circle the letter in front of the answer.

1. The Japanese quality revolution hurt some manufacturers in the West because:
   a. they were too production focussed.
   b. they tried to compete with the Japanese products.
   c. they were too customer focussed.

2. Quality control is:
   a. another word for inspection.
   b. monitoring performance against quality standards.
   c. the customers’ concern.

3. Consistency in the production of goods and services means that the process is:
   a. probably in control.
   b. meeting high standards.
   c. satisfying customers.

C. Mark the following statements (T)True or (F)False:
   ___ 1. Quality standards are the way that a producer tries to match the requirements of its customers.
   ___ 2. Variation always means that a process is out of control.

D. The three different costs of quality are:
   a. ________________
   b. ________________
   c. ________________
Answer the questions following this case.

Jeannie, at US Autos, has been asked to look at their delivery system. Customers have been complaining about how long it takes some goods to arrive. The worst case is someone who waited for a part for three weeks after it had been sent.

US Autos says that it aims to deliver goods in stock within five working days. Since most orders for stock items are sent out on the same day that they arrive, and all go out by the following day, that means that they have three or four days for delivery.

Jeannie finds that the carrier they use claims that 90% of items are delivered next day. However, the US Autos customers seem not to agree. When she tackles the carrier they say that the problems come from poor labelling. They say that the item which took three weeks was addressed to Mr Hansen, Lanarkshire. It was amazing that they delivered it at all!

Jeannie decides to test the system. She puts a note in all the items sent in one week and asks the customers to write on a stamped and addressed postcard what date they received their order.

Most of the cards are returned, and half of them say that the goods arrived more than a week after they were sent.

- Do you think this is a sensible way to monitor the quality of the carrier’s service? Why or why not?

- If you were Jeannie would you believe that the carrier was meeting its quality standards?
How well do you use the skills in this session? Think about your organisation’s quality control procedures.

- Does it use clearly defined standards which you and your team are aware of?
- Do you believe that quality is in control?
- Does your team play an active role in checking the quality of what it does?

### Think and Apply

1. Read the list of skills. Tick the boxes to show your strengths and weaknesses.

<table>
<thead>
<tr>
<th>Skills</th>
<th>strengths ← - - → weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I'm good at this</td>
</tr>
<tr>
<td>using quality standards to control quality</td>
<td>□</td>
</tr>
<tr>
<td>operating quality control procedures</td>
<td>□</td>
</tr>
<tr>
<td>making your team aware of the importance of meeting quality standards consistently</td>
<td>□</td>
</tr>
</tbody>
</table>

2. Do you want to improve any of these skills?

3. How do you plan to improve the skills you listed in question 2?
   
   (You might want to discuss this with your line manager or your tutor/mentor/coach.)