Service Quality Research/5
# Reducing the Dimensionality and Changing the Point of View
By Chuck Chakrapani

This article deals with the fourth context in which we need alternatives (or supplements) to traditional qualitative research. This aspect deals with identifying obsolete systems and procedures that hinder service.

In many cases, obsolescence takes place over a period of time, usually gradually. Even within an organization, what is obsolete in one part of the organization is not obsolete in another. For instance, some branches of a bank may have up-to-date computer terminals while other branches may still depend on cumbersome manual procedures. Consequently, it is not always possible to know when or if a given procedure has become obsolete.

Two major principles may be used to help us understand this problem better: one, reduction of dimensionality and two, changing the viewpoint. The camera-eye technique can be used to achieve both these objectives.

Prior Knowledge as an Aid to Understanding
In general, the more we know about a given context, the more we understand it. We see more details in a three dimensional representation than in a two dimensional representation. Similarly, the more we know about a subject, the more easily we comprehend new material related to the subject. We find it easier to understand a badly written sentence in our native language than in a language we are less familiar with. Prior knowledge is considered an asset and it is an asset in most contexts.
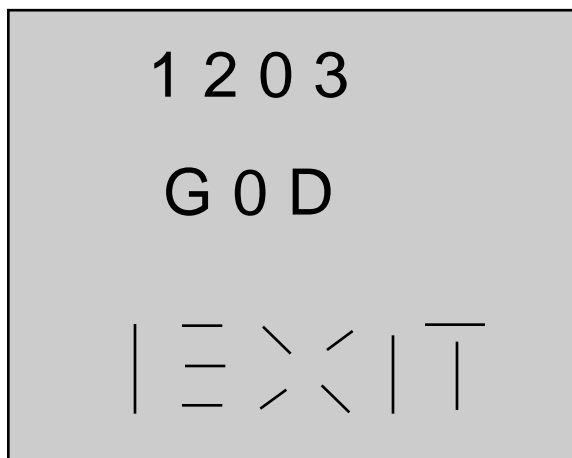
Deletions, Distortions and Generalizations
Paradoxically, prior knowledge can also result in perceptual filtering. Most perceptual filtering arises out of our habitual ways of looking at an issue. For example, read what is on the panel below.

If you are like most people, you would have read the first set as a set of four numbers 1 2 0 3, the second set as a three letter word, God, and the third set as the word 'EXIT'. Very few people imagine that one could see something else. Yet the 0 in 1203 is identical with the 0 in G0D. '0' was a zero in the first example and the letter '0' in the second example. The only reason most people read the above two sets as 'number 1203' and 'word GOD' is that this interpretation makes sense in that context. What most people read as 'EXIT' is a collection of unconnected strokes. The 'closure' phenomenon is responsible for our interpreting it as 'EXIT'.

Serious misunderstandings can occur when our interpretations are treated as reality. Quite often behaviours are interpreted because they 'fit the context' as in our first two examples, or explanations are provided for gaps in knowledge to make what is perceived meaningful, as in the third example.

In general, prior knowledge filters our perceptions three ways:
       1. Deletions
       2. Distortions
       3. Generalizations
In such contexts, prior knowledge is a hindrance rather than an aid to our understanding.

While very few of us would admit that we habitually distort our perceptions, many of us are intuitively aware of such distortions. Quite often consultants are called in 'to take a fresh look' at problems, even when the consultant admittedly knows less than those working within the organization.

Service Quality and Perceptual Filters
How do these perceptual filters apply to service quality research? Let us consider a few examples. Some of the procedures used in service organizations were established at a time when a different technology was in place. For instance, not too long ago, computers were not universal. Extensive paper-based procedures were necessary. Filling in different forms for different services in the same institution made sense when operational procedures were manual. Such procedures were accepted by the institution and the customers as necessary. Computers could conceivably eliminate duplication. Yet prior knowledge that such paper-based procedures are essential would prevent many people from making the maximum use of the available technology. Very often obsolete procedures will be defended as essential safeguards.

Consider another example. A bank manager may argue that he or she knows exactly what a person who is close to retirement wants. Even when the manager's remarks are based on extensive experience, his or her experience may become outdated when the composition of this group changes (as would be the case when the affluent 'baby boomers' get close to retirement). The manager could be dealing with customers based on knowledge, developed over the years, which may be irrelevant in the new context.

The Problem of Knowledge - and Lack of It
Lack of knowledge can be remedied relatively easily: the organization can organize skill building exercises for its staff, it can send the employees to specialized courses and seminars or it can hire external consultants. But when the problem is deletions, distortions and generalizations arising from being too familiar with a subject, corrective action is not easy to achieve. One of the benefits of knowledge is the ability to generalize, to take the inductive leap, the ability to see connections which are missed by less experienced and knowledgeable people. Yet it is this inductive leap, based on prior knowledge, that leads to distorted perceptions in many cases.

Dynamics of Perceptual Filtering
How does an organization cope with this problem? After all, past experience and knowledge are key components of success in any endeavour. We may want to begin with an understanding of the dynamics of perceptual filtering.

The chart on the last page shows the dynamics of perceptual filtering. While deletions and generalizations are critical to survival, distortions occur because most of us find it easier to reinterpret our experiences to suit our 'knowledge' than to challenge the validity of what we know.

Considerable psychological literature is available on how most of us ignore or distort reality, if it is not in line with what we 'know'. We needn't review all of this information to know that, very often, our view of the world does not coincide with reality.

Many procedures which are in place in service organizations - especially in financial institutions - were devised for a time when the technology was different. Such procedures may interfere with providing quality service to customers.

To avoid perceptual distortions we do not need greater knowledge; rather we need a way to see without perceptual distortions.

Deleting a Dimension - And The Context
There are many methods by which perceptual distortions can be handled. A
_____

I stumbled upon the power of this technique by accident several years ago when I was doing research on industrial safety in Liverpool, England. I spent an afternoon observing a large work area. When I had to leave at the end of the day, I took some photographs of the work area as part of the research project. Several days later, while I was reviewing the photographs, I noticed objects hanging over workers that could cause accidents. Yet when I was physically observing, I completely missed them: I 'understood' why they were there and they appeared to be where they should be. Eliminating the third dimension and the context altered my perception and enabled me to see things differently. Since then, I have been able to apply the principle of 'deleting a dimension and the context' as an aid to solving problems.

particularly useful method is that of 'deleting a dimension and the context'.*

'Deleting a dimension' is a second hand observation technique. It can take many forms.

The Technique of 'Let's Pretend'
One way of eliminating a dimension is to alter the context. For instance, a group of bank executives were asked 'If a highly skilled and intelligent McDonald's manager were asked to run your bank for one day, what would he or she ask the tellers to do?' Their answers produced many interesting ideas that could be directly applied to improve service quality. Yet the same managers maintained earlier that their business is unique and they could not really learn anything about service quality from non-financial industries.

Another example of altering the context is to present the management with 'What if alternative X were not available to you?'. Let us consider a situation in which a customer has to fill in a separate form for each service. The bank insists that it is absolutely critical that this be done. An exercise for the management in this case would be: 'What would you do if you were legally allowed to ask a customer information only once?' Most members of management will quickly come up with ideas for systems that will solve this problem easily.

As a matter of fact, this technique can be extended to every single operation. For example, 'If you are not legally allowed to _____ (fill in the operation whose elimination would improve customer service), how would you handle the situation?'

Another variation of this technique is to present the problem as though it has already been solved by someone else. For example 'In Japan, a customer never fills out a deposit slip. How do you think they do it? Are we capable of doing it?' Chances are people will come up with several ways it could be done.

It is interesting that problems which appear insurmountable in the current context can be solved easily when the context is changed. The current context is governed by current knowledge and thus is resistant to new ideas. Changing the context or deleting a dimension removes the current knowledge associated with the problem and provides a greater opportunity to explore different solutions.

The Camera-Eye Technique
An effective way of eliminating a dimension is to use still or movie cameras. The footnote in the previous column describes how two-dimensional photographs can provide valuable information. Several years ago, a manufacturing firm used this technique successfully. Their recording of housewive's trip s to the refrigerator (with both hands full) resulted in their adding a foot pedal to the appliance.

The technique can be very effective in understanding deficiencies in service quality.

Consider a customer who is being served by a teller. It is common for the teller to leave the counter to get the signature of a senior person. Bank managers and other people in management know about this operation and pay no attention. If this operation were to be filmed, several things will become obvious:
• It can take a long time for a teller to get the signature.
• The customer is uncomfortable waiting to get his or her own money.
• People behind the customer being served look annoyed.

To be sure, all of these signs can be seen without a video camera. But when things are observed first hand, they appear natural and therefore not a problem. A video recording, on the other hand, removes a perceptual dimension and forces the observer to view the delay, to see the discomfort of the customer, and the effect it has on other people in the line. If we have any doubt about what we saw, we can review it again! Problems are presented in bold relief when we remove the context and one or more perceptual dimension.

As an example, if we wanted to know how a customer is likely to feel about counter service in a bank, cameras would be mounted on the *customer side* - videos capture the situation (literally and figuratively) from the customer point of view. The camera sees and records what the customer sees - such as employees talking among themselves while the customer is waiting, or tellers doing paperwork which can presumably be done later. When viewed through from a customer's point of view, certain aspects of service become clearer,. What appears logical and important from the employee side might appear as insensitive behaviour when viewed from the customer side. Employees could be talking about an important aspect of their work and yet the customer, who has been waiting in line for ten minutes, may perceive it as a 'social conversation'.

We can also deliberately 'reduce dimensionality' be confining the camera to a specific area. Thus when a teller goes to get the signature of a supervisor, all the camera records for (say) three minutes is an empty counter with customers fidgeting in line. Another way to reduce dimensionality is to suppress the audio recording completely. These techniques tend to enhance the 'tension level' of the viewer and call attention to any discomfort the customer may feel. In general, customers function with reduced dimensionality because they do not necessarily know the reasons for the delay while they wait in line. Artificial reduction of dimensionality while viewing is a way of approximating (however crudely) the effect of reduced dimensionality.

When the camera records there minutes of empty counter and fidgeting customers, and it is played back with no audio, the level of discomfort would indicate that an improvement is called for in that

area. (The interpretation gets very qualitative at this stage. This is probably inevitable since service is a personal and qualitative judgement.) the next logical questions are:
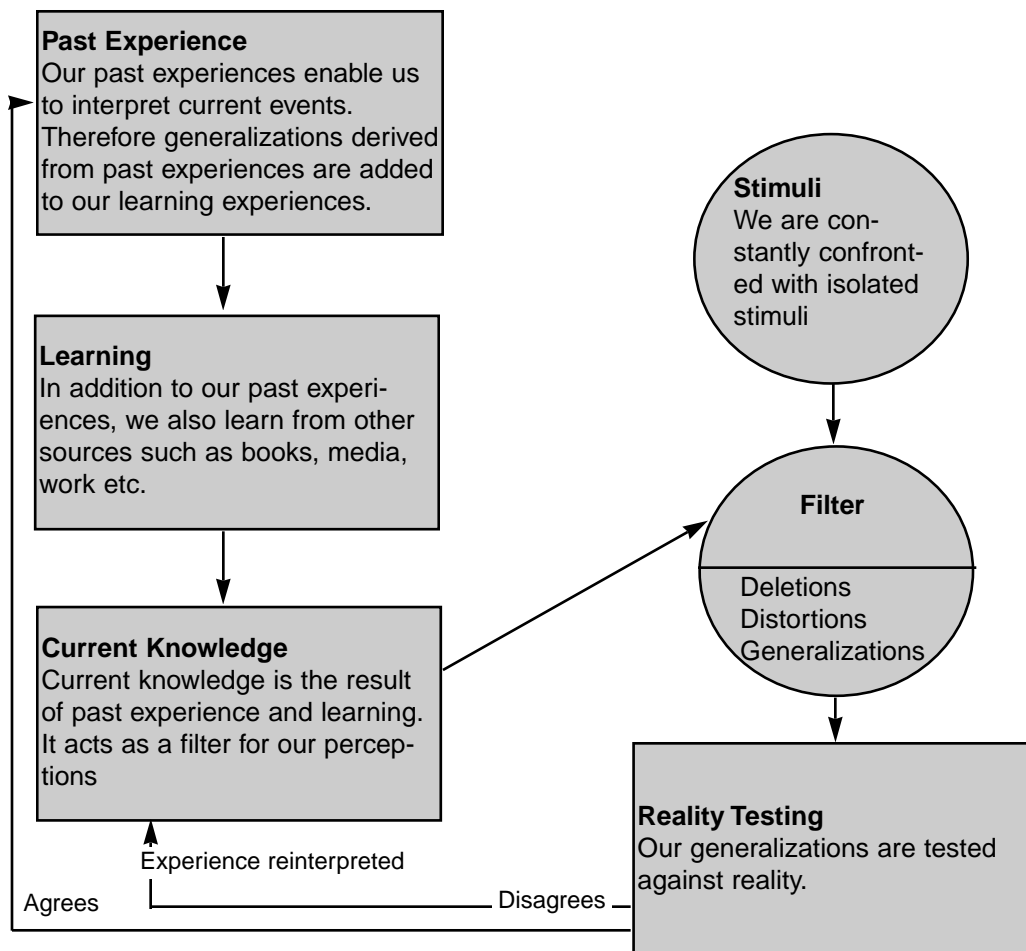• what happens during the three minutes when there was an empty counter?
• can the actions that took place away from the counter be eliminated?
• can the actions that took place away from the counter be shortened?
• can the actions that took place away from the counter be done later?
• can the actions that took place away from the counter be done beforehand?
• can the actions that took place away from the counter be eliminated in some cases?

In all probability, the actions are likely to be the result of some past requirements. They can now be challenged:
• Do those requirements still exist?
• Do we have the technology that will help us eliminate these steps?

The example above illustrates the numerous possibilities available through this technique. The main advantages of this technique are:
1. By eliminating dimensionality, we call attention to factors that are normally overlooked as a result of the 'closure' phenomenon;
2. By placing the camera on the customer side, we can see service in the same way as customers do; and
3. By querying each procedure that causes discomfort, we try to identify procedures that can be done differently or even eliminated completely.

Past Experience
Our past experiences enable us to interpret current events. Therefore generalizations derived from past experiences are added to our learning experiences.

Learning
In addition to our past experiences, we also learn from other sources such as books, media, work etc.

Current Knowledge
Current knowledge is the result of past experience and learning. It acts as a filter for our perceptions

Stimuli
We are constantly confronted with isolated stimuli

Filter
Deletions
Distortions
Generalizations

Reality Testing
Our generalizations are tested against reality.

Experience reinterpreted

Agrees   Disagrees

The filtering processes of deletions, and generalizations are basic to survival, since human beings are not capable of processing the thousands of stimuli that impinge on them every day. Generalizations are a quick way to organize the myriad of apparently unconnected stimuli.

The problem is that current knowledge which has already been checked and found correct is seldom rechecked when reality is in disagreement with current knowledge. A common tendency is to reinterpret current experience rather than to re-check the validity of current knowledge. Hence the distortions.

When applied properly (with management involvement), this technique can provide extremely valuable insight into service quality. Such insights can be used as inputs for further qualitative or quantitative research. It is also possible to use the insights to improve service quality without further research. This is especially the case when insights generated during this phase identify opportunities for greater efficiency that is direct, measurable and meaningful.