

## **Answers for Case Studies Unit 7 – Quality Control Skills**

### **1. Total Quality Management on the Web**

This problem raises more opportunities for role-play in the class. One group could be the web site managers and the other group could be the consultants. Taking an objective role of reappraisal would be a better technique than just criticizing and hoping they take the message. There is too much negative reinforcement in that approach. It would be better to discuss the concept of TQM and then have them suggest an area of their business where it might, just possibly, apply or be helpful to them in achieving their goals.

Another way of handling this problem in class might be to have a group make a web site (using standard web tools available in Microsoft) for a business that group wants to run. Then have the other group find ways to apply TQM or any other technique to it. Perhaps limiting a group to five or seven people in a group might be a manageable size. Alternatively, the students could go on the web and find a web site to critique.

In order to start the critique, the consultants need to select the appropriate management tool to deal with the perceived problem. Determining what that tool or set of tools is would be the first step. This selection means deciding what the consultant wants to do with the identified business problem and how the observer wants to communicate to the business people to help them. Next, the consultant must determine the ability of the audience to hear and perceive what the observer wants to communicate. Do the businesspersons seem welcome to change?

Once the consultants have critiqued the web business, allow the roles to be reversed: have the web managers become consultants and analyze and persuade.

### **2. “Houston...We Have a Problem”**

At the very least, one designated group within NASA should have had oversight and responsibility for the Mars Climate Orbiter project. This group could have reviewed the specs developed by both the spacecraft and navigation teams and made sure—early on—that they were compatible. A second problem is that others went along with the faulty assumption without looking at the overall picture. Even if a business is organized in a hierarchical manner, employees should be on the lookout for potential trouble and alerting management immediately.

### **3. Basic Accounting Tools—First-Line Management Systems**

The equation means what it says—assets on the left side and liabilities and equity on the right side. First, the two sides must balance. The right-hand side shows the sources of money that go into the business—where the money comes from. The left-hand side shows how the money is invested or used. The left side can only have as much value in assets as the right-hand side shows someone put money into the business. Thus, they must always balance.

The right-hand side has two parts. It has liabilities and equity. Each of these is a different source of funds for the business. Liabilities are other people’s money that they put into the business as loans. Equity is money put into the business by owners. So liabilities are other people’s money, and equity is the owners’ money. A debt to worth

ration then is the ratio between the two types of money on the right-hand side of the balance sheet. Note that when the business makes or loses money during an operating period (as shown by an income statement), the results (+ or -) are transferred from the income statement when it is closed out to the owner's equity portion (retained earnings) of the balance sheet. An income statement shows how much money the business made or lost—and how it happened—during a particular time.

What does mean? It shows how the financial resources (liabilities and equity) of the business have been invested (assets). Combining that information with the operating results from an income statement gives the manager a sense of how effectively the assets were used. Should they be shifted around? Should new elements be introduced by means of more loans or more equity investment? How strong is the business? Can it stand on its own with its equity and keep going based on its profits—retained earnings? Or does it need more money from outside sources? Is it cheaper to rely on outside debt or would our business be stronger if we had more equity? All these are issues that will be raised by a manager who looks carefully at a balance sheet in terms of whose money is being used and how the business is using it.

Investment is money from somewhere—from the owner, investors, or from the lenders. It is the owners' capital or the lenders' capital. Since capital is the basis of our economic system, we need a way to keep tracking it.