Figure 11.9a. PROCESS IMPROVEMENT STRATEGIES: *The Quality Man*

This Figure 11.9a presents the dialogue from a 1985 BBC video entitled *The Quality Man*; it comes from an interview during a game of golf with Philip Crosby, a pioneer (like W. Edwards Deming) in emphasizing the need to improve quality in American manufacturing and service industries. Mr. Crosby's comments provide useful insights into ways to achieve quality improvement.

PHIL CROSBY is one of the world's leading authorities on the management of quality in business and industry. He's worked in the field for over 30 years on everything from missiles to washing machines. For over 15 years, he was the vice-president of the ITT Corporation, where he had total responsibility for the company's quality throughout the world. Now, he's president of his own Quality College in Winter Park, Florida. There, they teach the management of quality improvement to thousands of senior executives from companies like IBM, Borg Warner and General Motors. We caught up with him on a recent golfing holiday in Scotland, and what follows are some of his personal views on the management of quality in business and industry.

PC: *All the good golfers play to the rules; everybody I've ever known who is a good golfer – all the professionals, all the low handicappers – obey the rules exactly and, because of that, they know that every stroke counts, every shot counts, and if you do something undesirable, you have to live with it. If you hit it in the rough, you have to hit it out of the rough. Now the high handicap golfers have their own rules; they have the "Carried away by a wild animal" rule – if they can't find it in the rough, they drop one in the fairway because it must have been carried away. They have the "Buried under a leaf" rule; they have the "Gimmies" rule, they give the putts. The professionals don't give anything away. As long as you can do that, as long as you don't have to suffer the consequences of your acts, then you don't have to get serious about it and serious golf makes better golf. And this same thing is true in management; as long as management can sign waivers, off-specs, deviations, procedural changes and things like that, and deliver to the customers non-conforming material with little pieces of paper that say its okay, then they never get serious. People ask me why are the Japanese so good at quality, for instance, and it's not all these systems you read about and it's not this 5,000 year-old culture, because it used to make junk before World War 2 if you remember; it's really a matter of they take it seriously. They take the requirements very seriously. If you go to the president of a British company or most American companies and say to them "This in not quite round enough but we can use it anyway" they will say to you "What does engineering say" and if engineering says okay, they use it. If you go the Mr. Honda and say that, he will whip out his ceremonial sword and slice you right in half – he doesn't want to do that, you have to get clear about that, and that's the only difference.*

PC: *This businerss of the wind being a big factor in a golf course is not something I'm used to – you hit the ball in the air and the wind does whatever it wants to do.*

It is a little windy, that's for sure.

PC: *They don't have any trees or anything – that's what we could do, we could sell them trees, we could come out and we could bring a whole forest of trees and sell them ..... a few oaks right down each side of the thing. You figure, let's see 10 bucks a tree, ...*

PC: *I think one of the big problems with quality in the manufacturing and service business is that nobody's really against it, everybody's all for quality and you can't find anybody that doesn't want to do it and you'd think perhaps more of it would happen – people are not only naive about quality but they rationalize it; for instance, we had a case where they were putting a new bridge. across the Hudson River and the Governor of New York came down to put in the Golden Spike and as he reached out to the girder, there was no hole in the end of the girder, so he palmed the spike and then he gave it back to the chairman and irascibly went off the bridge, and they called the factory who sent the quality control man down and he came down and he climbed out over the river and he looked at this girder and he examined the serial number, and he went back and called the factory and he came back and he announced to the chairman that "There was a hole in that when it left the factory" – that's, of course, the story but that's what happens – people make up about quality, they don't face it, they don't take it seriously.*

So, how can we change things?

PC: *There are four things we call the absolutes of quality management, concepts you absolutely have to understand if you're going to change anything.*

- *You have to know what's the definition of quality, what does it really mean.*
- *What system do you use to make quality happen.*
- *What performance standard do you give people so that they cannot misunderstand it.*
- *How do you measure quality in management terms, some meaningful way that they can get it.*

In summary: definition, system, performance standard, measurement.

Now let's take them one at a time.

What's the definition of quality? The conventional definition of quality is goodness, beauty, truth, weight, something you know wben you see it – those are all nice things to say but you can't manage that; quality has to mean conformance to requirements – when you ask someone to do it right the first time, you have to tell them what "it" is:

– *"it" is drill the hole one inch plus or minus one 10,000th;*
– *"it" is answer the phone before it rings three times;*
– *"it" is turn on at 8 o'clock.*

That's the requirement.

So a Rolls Royce that conforms to all its requirements is a quality car, a Mini that conforms to all its requirements is a quality car – you see, it's not comparative, you don't have good quality and bad quality, high quality and low quality; quality is what are the requirements and conformance to them. That's the first absolute of quality management.

The second absolute refers to the system. The system that's used now is appraisal – you inspect and test and fix and inspect and test and fix until the thing is finally done and then away it goes. That's very expensive and also destructive. What we want to do is prevention – get it straight up front, get clear what we're going to do and make it all come out right. For instance, if you're talking about an omelet, you know somebody's going to cook an omelet, or a chocolate mousse; you can't wait until it's all done and then sit down with the customer and decide if it's right; is there enough sugar in it, enough eggs or whatever, has to be dealt with as it's being made – that's prevention.

Third is performance standard and, conventionally, we talk about acceptable quality levels, how good does something have to be, and they're all measured out in very precise numbers but really what that means is you don't have to do it right the first time. What we want is everybody should do it right the first time, "it" meaning the requirements that I talked about. So we say we should have a performance standard of defect-free, Z defects, zero defects, Zd, meaning do it right the first time. So the people know what management wants, management makes it clear. If management goes round saying "that's good enough," "don't worry about that," "we'll worry about this next week," then what you get is garbage.

Then how do you measure quality? Well, this is one of the interesting things about it; most management courses and colleges teach you you can't measure quality, it's just one of those things; if you spend too much money on it, you don't make money. We talk about quality in terms of financial responsibility, how much does it cost

(*continued overleaf*)

you to be bad – what is the rework, what is the service, what is the warranty, what does it take to chase people around and get things right again. We just built a new house and everything we got in the house had to come back and get fixed, every single thing somebody had to come back and they did it cheerfully and happily but service is expensive and you get no money for it. So we see in manufacturing companies, they spend 25 to 30 per cent of their sales doing things over and again. For service companies, it's 40 to 50 per cent of their cost of operations that they waste, this is actual wasted money, the management doesn't realize that quality is as important as finance or marketing or these other things – they just sort of leave it up to somebody.

But shouln't that somebody be the Quality Manager?

PC: *No. I'm saying the Quality Manager, and I was one for a long time, really is very powerless on this. The Quality Manager can only sort the good from the bad, complain about it and so forth. You know, when you're sorting, when you're looking at it, it's all done, it's all over with. The Quality Manager learns to say, over and over again, to top management "This is just not right" and then that management says "No, no, just sort it out the best you can, our level is good." We have to take a great leap forward in this business. This business of an acceptable quality level is passé – the quality control people just do not have the knowledge or the power to know how to change this thing. It's management, it's like finance. Years ago, finance was you had a cigar box and you put your money in and at the end of the month, if you had any money left, that was a profit. Now, finance is a very big complicated thing – the accountants are controllers and they sit on the board of directors and they make great decisions about this. Well, quality has to be thought of the same way, not that you need somebody with a lot of power to make it happen but it's a senior management responsibility. They take finance seriously, they take the business of making money and paying the bills seriously, they take the business of deliveries seriously, they take the business of purchasing seriously; we need to take quality seriously. For instance, the suppliers: very few companies sit down with their suppliers and work out an arrangement with them where they will deliver to them defect-free material routinely over a period of time so they can use it so they can keep the inventory short. All they do for suppliers is to find the cheapest one and buy it and figure they're doing well. That's archaic – these things have to be thought about and they have to be handled and it's all part of quality, it's all part of making it all come out right the first time. Management action is what makes it happen.*

Does the management style have a part to play in Quality?

PC: *Now the whole business of quality revolves around management style and the culture of the company. I like to equate it to something like ballet and hockey; a ballet is something that's put together out of a script and it's a story that is laid out exactly as a symphony, written perhaps by one of the old masters, in the theatre and so the script tells a story like a young princess is taken away by a magician to a castle and rescued by a young prince and removed in a swan boat. And so the dancers practise this choreography, the set people build the theatre set, the symphony is working in another theatre, perhaps another hall, practising and then they all come together, and the director says to the ballerina, for instance Natushka, "This little spot here on the stage," he says, "at the sixth bar of the symphony you have to hit that spot with your right foot and you go up on your toes and we will light you with a white spotlight and then Ivanof will come over and pick you up and deposit you in the swan boat at which time we will light you with a blue spotlight." And we practise so they do that and the director says "Now we didn't get that quite right according to the requirements, we didn't do it quite right, you missed the spot." She says "Well I'm dancing without my contacts, perhaps we could make the spot a little bigger" and he says "Okay, we'll do that so you can meet it," and he says "We didn't get the blue spotlight." But the man says "The one switch is over here and the other switch is over there, I can't reach," so what we'll do is make accommodation so that he can reach the switches. And they practise and they get it right. and that's the way they do it and they do it that way every performance, and its predictable – everybody in the cast knows that, at that exact moment in the symphony, she's going to hit that spot and he's going to pick her up, the swan boat comes out and the lights are going to change – they all know that and they can practise it that way, that's ballet, that's management where everybody understands what's going on and everybody supports each other. That's the kind we want.*

Now what we really have is hockey management. Hockey is a wonderful game and I really enjoy it but it's not a very good management style, because in hockey everybody has a uniform, everybody knows their place in the organization, everybody gets all set, they drop the puck on the ice and they take off chasing the puck around and every hockey game is an original experience which, of course, is the whole idea – it's an original experience but nobody knows what's going to happen at the sixth bar of the symphony, nobody knows what's going to happen in there so you can't predict it. And every day, at the end of the work day, all the management people drop exhausted in their chair with a sense of satisfaction of having accomplished something; the fact that they've solved the same problem over again for the 300th time doesn't bother them – they think it's inevitable. But ballet is possible when we set the requirements clearly, when we explain them to the people and educate them and give them the wherewithal and when we help each other. That's what management style is all about.

You have to take your shot up to the right-hand side of the trap

PC: *The wind will bring it in if I get up left. On a day to day basis, it really comes down to people try to evaluate how serious management is about something and the credibility of the management commitment is what's involved. For instance, like in playing golf here – when you have a caddy, the relationship between the golfer and the caddy is pretty much up to the golfer.*

When Watson plays here, he just nips the ball underneath and just at the back of the ball – hardly takes any, just nicks it right out.

PC: *If that's good enough for Watson, it's good enough for me. The caddy knows a lot more about the course and probably a lot more about golf than the golfer, and they will work with you depending on how serious they think you are, how much you want to play, how hard you want to work at it and so they'll sit down and line up the putt with you, show you where to go or they'll just hand you the putter and stand back – they take it from you, from what you have to say. And this management puts it forth – if management wanders around saying "Oh, that's close enought, don't have to worry about that," "Well, people just won't understand," "You know, I mean, customers, what do they know," and all that sort of thing, then people pick that up. Management is very domineering in meetings – I think that the biggest problem of senior management always is that they don't listen, they sit down at the table and they start talking, and they say the same things over and over again and so they don't learn anything. Management should go to the meeting and keep their mouth shut, listen to the other things and, if they've got something to say, say it in a couple of minutes and get it over with. I guess I worked for 10 or 12 years before I ever found out that management is supposed to help you. I always thought management was kind of a punishment from God; hopefully, my subordinates don't feel that way. It was really working in a men's clothing store part-time, when I was working as an engineer and wasn't making enough money, that I began to realize that management would help you and these people that ran this store would have classes after work and they would bring in clothing merchants and shoe merchants, everything to show you how these things were made, so you could explain to the customer better – hardly anybody, for instance, wears the right size shoes because nobody knows how to fit shoes, they fit them just at the end of the toe and that's not the way you do it. I remember the manager showing me, for instance, when a customer went out with a suit box under his arm, he went*

(*continued*)

Figure 11.9a. PROCESS IMPROVEMENT STRATEGIES: *The Quality Man* (continued 1)

PC: *past the tie counter and he looked at the tie counter and I said "May I help you" and he said "No, thank you" and he went out the door. Then the owner came over and said to me "Now, Phil, the way you do this is you say to him "This would go very nicely with a grey suit" and I said "How do I know he's got a grey suit" and he says "Well, you look back at the cashier and they will tell you: one finger blue, two brown, three grey, and then you know which to say." Well, they were helping me to help the customer – get the suit out of the box, let's try out some ties, everybody needs some new ties with a new suit.*

That's not the way it's done. This business of roles, you know, that management is this and the little people are that of some kind – that's not the way it has to be, we all need to communicate, particularly in the service business, like hotels and banks. You can go to a bank all your life and never meet anybody important – you deal with all the lower levels. And if the people who really run the bank don't talk to those folks and don't communicate with them and don't tell them their role, then nobody will ever know it, nobody will ever know what it is. So really the whole business of quality is management has to make very clear requirements, or as you folks say, objectives, so that everybody understands what they are; "This is what we are going to do." Then get agreement on that, "Yes, we can do that," and here are the tools you need; no mattter how enthusiastic I am or how motivated I am, I cannot lift 2,000 pounds, you've got to give me something to do it with. I can't get from London to Paris in eight minutes, it just can't be done, so I need tools and I need ways of doing things. Then management needs to encourage and to help. In our company – we have 120 people down in Winter Park – I go around every day and I see everybody, everybody that's there and isn't travelling, and I chat with them and if they have a problem, they tell me about it. And I go and I do something about it; I don't follow each one, but I go and I find this person is not getting things from the stock room and I go to the stock room and I find out they don't know about that. So management has to be like a bee, going from flower to flower to flower carrying the pollen around.

So is Quality about communication?

PC: *You have to be very careful when you talk about quality and communication to make sure you understand what you're talking about. I tell a story on myself when I was with ITT; I was sitting in my office one day and I received a telephone call and the fellow said "I'm looking for the corporate quality director" and I said "That's me" and he said "We haven't met but my name is Bill Campbell and I run the aerospace division out here in Los Angeles and we've got this terrible problem, we're making a thodolite for the NASA Jupiter probe and they are really upset with us about the lousy quality that your people have made us have and they're coming in here Monday and they're going to plow the ground with salt and burn the building and the whole place is going to be all over" and I said "Okay, wait a minute, tell me all about it" and he told me this long involved story and I said "I really think that you and NASA don't understand each other and I think that there's a communication problem here and I'll see if I can help you, so I'll go down this afternoon to Washington and meet with the NASA headquarters people and get their side of the story and then I'll take the late plane down to Houston and spend the day at the Lyndon Johnston Laboratory and that'll get me into Los Angeles abou 2 o'clock Saturday morning and I'll go out to your plant and you leave your office open and I'll catch a couple of hours' sleep on the couch and you bring your staff in Saturday and Sunday and we'll work out a corrective action system so that when NASA comes in on Monday, we'll just knock them dead with the corrective action system and we'll really get it fixed, we'll really get the problem fixed because it has to be right." "Oh, my goodness" he said, "That's just going to be so wonderful, I never dreamed I'd get so much help from the corporate seagulls." "Seagulls," I said, "what's this corporate seagulls?" "I'm sorry," he says, "that's what we staff people call the headquarters chaps. You know, they fly in, they eat your food, they squark a lot, they crap all over you and then they fly away" but I said "We try not to be seagulls here in Quality." So he said "I'm going to make sure Mr. Allison understands all of the things you're doing, giving up your weekend and the late night flights and sleeping on the couch and everything," and I said "Well, thank you very much but who's Mr. Allison?" There was a little pause and he said "Well, Mr. Allison is the chairman of the Board and chief executive officer of the corporation." I said "Mr. Janine is the chairman of the Board and chief executive officer of the corporation." There was another pause and he said "Isn't this Plaza 2-8000" and I said "No, it's 2-6000 and this is ITT" and there was another pause and he said "Does that mean you're not going to come?"*

Well, this, of course, is a story of mixup in communications. Well, that's what quality is all about. Quality is a matter of taking communications seriously, explaining to the people what you want, explaining to each other what you want, getting it all straight up front and making sure everybody knows how to do it.

Why do so many companies have problems with Quality?

PC: *We put forth five characteristics of companies that have problems with quality always.*

- *The first one is that they always don't do things right – whatever they deliver, there's always a tag on it that says something or it just isn't quite done properly, it's almost like they have a policy that way.*
- *The second thing comes from the first thing, and this is that they need a field service or they need a dealership or they need some sort of follow-up thing to get things straight after it's all done.*
- *The third is they don't have a clear performance standard, they don't have it defect free or they don't say we're going to do it right the first time, they have a sort of we're going to give service or they talk about excellence or something which doesn't mean anything.*
- *The fourth is they don't know what all this costs, they don't realize that they're spending 25% of their sales dollars doing things wrong.*
- *The last thing, and probably the most sincere one, is that management does not accept the responsibility for all this – they blame it on the public school system, they blame it on the government, they blame it on the Japanese, they blame it on the unions, they blame it on everybody but themselves, and they're the only ones that can fix it. And all that comes down to, if management is serious about it, they have to show they're serious about it, because the people are a reflection – you look at the people and, if the people aren't serious, you know the management's not serious. or, if management's serious, the people don't believe they're serious, so it's that sort of thing.*

What are the benefits of Quality Management?

PC: *The benefits of Quality Management are very clear as far as a company and a country and an industry go and that's reduced hassle, improved profit, happier people, but the real benefit to me is the personal one – when you don't have to battle old problem #36 every day, you've got time to relax and take a holiday in a nice place and play golf with some friends.*

1 Compare and contrast the ideas of Philip Crosby on how to achieve quality (as described on pages 11.49 to 11.51) with those of W. Edwards Deming (as described in Figure 11.10 on pages 11.55 to 11.60).

Your discussion should include consideration of Crosby's four absolutes of quality (in the right-hand column on page 11.49) and his five characteristics of companies that have problems with quality (in the right-hand column on this page 11.51) and Deming's 14 points (in two versions on page 11.56) and his description of profound knowledge (on pages 11.57 to 11.60).

(*continued overleaf*)

EM9206: **University of Melbourne *Gazette*, Autumn, 1992, pages 10-11**

A Commitment to Quality EXCELLENCE PEOPLE LEADERSHIP

By Divid Penington

OUR UNIVERSITY has recently adopted a new Strategic Plan. Over the period 1991-1993, we are committted to achieving the new goals and objectives we have set ourselves The title of the Plan, *A Commitment to Quality*, is not purely descriptive; it is a tenet to which we must adhere in the coming decade. It is a maxim, or brief for the future.

As we move into the 1990s, Australian higher education faces both challenges and opportunities. One of the most serious issues with which we must deal is the on-going debate on the assessment of quality in the universities.

Debate about the quality of higher education is by no means new. In Australia, the issue was perhaps first publically highlighted in 1986, with the publication of the CTEC *Review of Efficiency and Effectiveness in Higher Education*[1]. This urged introduction of academic staff assessment and made a number of recommodations aimed at assessing and safe-guarding the quality of performance of universities.

An efficient and effective institution is one which not only sets its own standards and has the freedom to assess quality in its own way, but is one which delivers on each of these issues. The 1986 Review recognised the government's legitimate interest in quality of higher education, given the amount of public money it feeds into the system. However, it stated that:

> *Procedures for self-evaluation which are established voluntarily, and assume a professional approach to their task on the part of academics, will be more effective in maintaining and improving the standards of academic activity than those which are the result of external pressure.*

In 1991, the Higher Education Council produced a discussion paper entitled *The Quality of Higher Education*. This paper was a response to a reference from Minister Baldwin to investigate *"the characteristics of quality and its diversity in higher education."* Both the minister's reference and the HEC discussion paper explore the possibility of the development of a federal body (albeit at 'arms length' from government), an 'audit' structure, with responsibility for assuring that quality is assessed, maintained and possibly rewarded in each institution, from a proposed allocation of $70 million p.a. to commence in 1994.

Are there dangers in this? Quality is an elusive thing; the Higher Education Council quotes the European commentator, Vroeijenstijn, who said that quality is like love; you know it when you feel it, but have trouble trying to define it precisely. It is not something on which governments or their officers are experts; it is something the universities need to assess themselves in the very varied contexts in which they operate.

The danger is that a national 'watch-dog' is very likely, in our current centralised and regulated system, to be bureaucratically controlled, despite initial good intentions that it be at a distance from government. We would not put a government department in charge of the training and coaching of our Olympic team! The government, of course, has an interest in knowing that the university system it funds is of high quality and the institutions will need to account to it, as well as to their students and the community, for the ways in which they are assessing and improving the quality of their programs. Nonetheless, academic judgements must continue to be made primarily by academics.

A Commitment to Quality: the new Strategic Plan

Our University has a loag-standing commitment to excellence in all its endeavours. We are a community of diverse academic cultures, each one special and different from the next. In order to be sure that every part of the university honours this commitment to excellence, we have agreed through our academic planning process, to a number of common goals, guiding values and objectives, and also to a set of special objectives for every faculty and academic discipline in the university.

For our educational activities, these are expressed as course and subject objectives, designed to give students a clear indication of what they are expected to achieve. The objectives allow us to ask questions about the quality of our education programs, as students are invited to comment through the use of questionnaires. We have set ourselves the target of evaluation of every course in the university at least once in the current three-year period. At the level of the individual academic, appraisal and staff developmemt plans are also conducted in the context of agreed plans and statements of responsibility.

The University of Melbourne is already recognised throughout the world for its high level of research and scholarship in international publications. We attract excellent staff from around Australia and overseas. We attract the highest level of competitive Commonwealth grants of any Australian institution and significant overseas grants. We also attract the best students. But that does not deny that there is room for improvement. In areas where we perform at a level which is less than excellent, particularly in teaching, we must continued to make changes. Where our performance is good, we must improve it.

This process must go on in every part of the University. We cannot afford to rest on our laurels. We want our staff, our students and our graduates to be proud of their University – they have good reason!

1. *Commonwealth Tertiary Education Commission, Bureau of Efficiency and Effectiveness of Higher Education. Report of the Committee of Enquiry, September, 1986, AGPS, p. 263.*

2 A university – a *service* industry – is involved in two main processes: teaching and researching. These processes involve sub-processes like attracting students, enrolling students, providing learning opportunities, assessing learning, obtaining research grants and disseminating research findings. These sub-processes in turn involve sub-sub-processes, and so on, to yield a complex process structure, made more complex by dependencies among some processes. On this process view of university operations, a commitment to quality is a commitment to achieving quality in *all* of the innumerable components of the process structure. This is a daunting task with many impediments, possibly including academic freedom.

- To what degree does the Strategic Plan outlined in the article EM9206 appear to recognize this challenge?
- To what degreee does the Strategic Plan appear to follow Philip Crosby's ideas for achieving quality?
- Suggest how Crosby might have responded to the following statements in the article EM9206.
  - Its title: *A Commitment to Quality EXCELLENCE PEOPLE LEADERSHIP*.
  - *An efficient and effective institution is one which ... has the freedom to assess quality in its own way, ...* (left-hand column, 4th paragraph).
  - The paragraph in *italics* near the bottom of the left-hand column.
  - *... quality is like love; you know it when you feel it, but have trouble trying to define it precisely.* (middle column, 2nd paragraph).