

Heralding a United Kingdom Quality Revolution

Mr. David Hutchins

Good morning. I was going to start by saying that yesterday evening I had a lovely dinner and the people I was eating with were a handful of some of the world's top quality experts. And I smiled to myself because in 1951 I left school, I was 15 years old, and the only recognition I had of all of that was I had a 100-meter swimming certificate and that was it.

Between then and 1958, I worked in an iron foundry and I did my military service and came out in 1960. It was during the two years that I was doing my military service. I discovered that I was reasonably intelligent and I actually had the ability to learn. I decided after I came out of my military service I was going to put that to the test.

I began night school, three nights a week for eight years. I got two degree equivalents, one in production engineering and one in mechanical engineering. Later on I did a Masters degree, and a few years after, I was an external examiner for Manchester University examining PhD and MSc theses. That's all relevant to what I'm going to say in a little while.

At the same time, when I came out of the army, I took a job as a junior production engineer in a factory that looks very much like that one. That wasn't our factory, it no longer exists, but it was very, very similar to that one. That was in 1960. And by 1968 or 1969 I was actually the factory manager. So I had progressed both in my education and in my business development.

We made pistons, piston rings, and gudgeon pins. My job was to try and maximize productivity at the same time while reducing costs, scrap, and rework, and to produce products that were superior in every respect to those of our competitors. That's what I was attempting to do.

Now, at the beginning of the 1960s, the UK led the world in shipbuilding. We had over 50% of the world market in shipbuilding. We had similar statistics for motorcycles. We had more than 10 major manufacturers of TVs and radios, right through to the end of the 1960s, in fact.

But by the end of that decade our shipbuilding was crippled, replaced by Japan as number one. Our motorcycle industry was virtually wiped out even by the mid-1960s. Our TV market was still okay but it was gone by 1975. Our automobile industry was in deep trouble and unable to compete with Japan on quality and reliability. That was beginning to impact on the company I worked for. We made pistons, piston rings, and

gudgeon pins, which are pins that go through the top of pistons.

My question was how do the Japanese do that? At that time there was virtually nothing that I could get my hands on what was written in English about Japanese production.

We obtained a set of four pistons manufactured by Honda. We checked them in our laboratory and I couldn't believe what I saw when we were looking at the grain structure, quite apart from the dimensional features. It was better even than the photographs in the relevant British Standard for that material. And again my question was how do they do that?

Now at that time, Japan was on the other side of the earth from us, not many British people ever went to Japan. I think an awful lot of people didn't know where it was. In those days the only people who had been were journalists and all they were looking for was some fun stories.

The general perception was that the Japanese can do that and of course they can sell their products cheaper than us because they only eat a bowl of rice a day, nobody pays them anything. They sing the company's song and they do exercises, and they punch effigies of their boss during tea breaks. That was a very popular story in the West at that time.

But I knew there was more than that. That just couldn't be it. But I couldn't find anything. There was some stuff around but it just didn't come to my way.

At the end of the 1960s, I left industry and I began teaching. I was teaching on an occasional basis at that magnificent-looking building, Ashridge Management College. It's one of our best management colleges in the UK. And I was talking to one of my friends there and then he said, "We have this Japanese professor who comes twice a year, he's coming soon, Prof. Sasaki, and if you like, I'll arrange for you to have dinner with him one evening."

So I asked and I told him how long I had been trying to find out. And he said, "Well, I happen to know Prof. Ishikawa". I couldn't believe what I was listening to. I had already learned of Prof. Ishikawa although I didn't know that much about him. That was just amazing in itself.

Three months later, Prof. Ishikawa sent me a copy of this publication. Some of you might be familiar with it, two or three other books as well. It happened to arrive one day when I had an evening class. I was sitting around in the staff room waiting for the time my students arrived and I opened it and I started to read it.

And on the second page, I suddenly read. This is actually taken exactly out of that book. "In quality control work, all persons concerned from the president down to the

operators have received suitable education and training. In one word, we have practice, so to speak, quality work of, by and for all.”

At the time, when I read that, we were going through the worst industrial relations period in our history. We had our lights out two or three days a week. Factories only worked for three days because of the strikes. It was really a bad industrial situation. And the thought flashed through my mind: quality control by all.

We were operating in our society, so-called “Taylor system”. Prof. Ishikawa often referred to it as the Taylor system where management manages and people do work and are treated like robots. No one asks them anything and involves them in anything. They just do their work day in, day out, year in, year out, probably for the whole of their lives. I would have done if I hadn’t managed to get myself educated early on.

In fact, I was telling Dr. Kano about this approximately 20 years ago. Dr. Kano had an evening class at this university and he said, “David, do you think you could come and give a lecture to my students because I want my night school students to see what you’ve managed to do. Also I want you to give them some encouragement for what they might do. I’d love to know what happened to those guys.”

And I had this thought: how do we do that? I got quite excited about it and I tried to get people to do it. But unfortunately, I couldn’t get to top executives. So I talked to some lower people who thought it was a good idea. But they weren’t in a position that can allow to do anything. And then out of exasperation I contacted Prof. Ishikawa and asked if he would be prepared to come to the UK. I almost didn’t expect it but he came back and said, “Yes, of course.”

Then I’d got Prof. Ishikawa coming over. I thought this is probably a once in a lifetime opportunity, so I’ve got to make sure this works. So we put that brochure together but I thought I’ve got to find one of the most prestigious places in London to do this. I’ve got to encourage top people who only go to top places, so I hired the Institute of Directors in London, not very far from Buckingham Palace.

And I also wanted a topline list of speakers. I didn’t really care whether they knew anything about quality or not. If they were on the program, it must be a good seminar. We made it three days. Prof. Ishikawa did virtually one day, but he chaired all of the three days.

This is one of our newsletters, but nevertheless there were national newspapers put similar things. The Financial Times had a big heading in there. “Rolls-Royce sharing in the secrets of Japan’s success,” because Rolls-Royce also participated, as you will see in the slide in a moment.

This is the top table. There’s Prof. Ishikawa on the left; Prof. Sasaki next to him.

Unfortunately he died in 2010. He is one day older than me, or he would have been; Adm. Spickenell; the one standing up is Reginald Eyre, he was one of our government ministers and the one on the end looking thoughtful. He was actually the head of the Institute of Directors. I thought out of respect I should have him there as well.

When Prof. Ishikawa was about to speak, he was introduced by Dr. William Thoday. Dr. William Thoday, back in the 1970s, was one of the most respected people in our quality movement in the UK. Unfortunately, we're not as good as the Japanese at respecting our people who have gone before and it was a great pleasure for me to be able to put Dr. Thoday's image on here. He introduced Prof. Ishikawa and I just want to play his opening introduction to Prof. Ishikawa and then just a few words from Prof. Ishikawa after that:

“This morning, I just came back from Budapest where there has been a weeklong conference of the European Organization for Quality Control. I am the British representative on this council and I'm also the vice president for external affairs, which amongst other duties involves the relationship of EOQC with the other significant organizations of the world such as the American Society of Quality Control, and of course, Japanese Union of Scientists and Engineers.”

Through these channels, I first became acquainted with Prof. Ishikawa as far back as 1967. And for a very long time we've looked at America as the leaders in quality technology. But we look at the Japanese as the leaders in quality products.

That is not only the view of the EOQC but also many of you who read the articles in the American Journal of Quality Progress. Recently there was particularly the significant paper by the world-renowned expert Dr. Joseph Juran, which compared in detail the television industries of the United States and Japan. He lamented the poor performance of his own country.

On a personal basis, for the last 17 years, I was with a multinational company having plants in the United States, in several European countries, and also in Japan. I had the experience of visiting each of these manufacturing areas where they were making business machines of similar design.

And we were not ashamed to admit that the Japanese quality performance was better than us. Significantly the internal costs of rework and scrap were lower. In addition, product service costs also were lower. Simply because of, as Adm. Spickenell said this morning, attention to detail and dedication to getting the first time job.

Now, let us turn to Prof. Ishikawa's second part to address us on the fundamentals of the QC Circle.

Okay, I'll jump straightaway now to Prof. Ishikawa to say just a few words. By the way, we recorded the whole conference so I've just taken these two clips just to give you a feel:

“As I mentioned this morning, we started quality control in 1949 as education for engineers. Next, in 1950 it was for top management and mid-management. From 1956, we started to educate foremen. In Japan, there are a lot of foremen, so at first we used broadcasting over the radio and afterwards television. Also we published many textbooks on QC for foremen.

In 1962, we published a magazine called QC for the Foreman. At that time, we started some small groups to study QC, so-called QC Circle. At that time most of the foremen had no custom to study. So we established some small groups, so-called QC Circle, at first to read and study this magazine.

Second, not for only studying, they must apply the QC method to solve practical problems. This is very important. My objective in establishing QC Circle was first to study, not only to solve problems but also to study quality control concepts and quality control techniques, and then to apply this method for solving problems in the workshop.

In the case of Japan, they establish a small group. From the first three to six months they only study about the concepts of quality control and quality control techniques. Afterwards, they start to solve the problems. Studying is very important.

For page 2 in chapter 3 “Education and Training of Foremen and Operators”, we used six methods. Classroom education is performed by professionals. My opinion is that this education is only one-third or one-fourth. Other education is very important.

Second, it is self-development, which is mostly voluntary reading and studying. At that time, we had published many quality control textbooks for foremen. I have already published more than 50 booklets.

Third, it is training on-the-job. Fourth, it is teaching for subordinates by superiors. Fifth, it is QC Circle activities for their constitute itself, so to speak, a workshop school for foremen and operators. In the case of QC Circle activities, every week we have a QC Circle meeting. The meeting is a very good chance to educate.”

It was the headline in the Financial Times: Rolls-Royce sharing in the secrets of Japan's success. Actually I didn't discover until later that Jim Rooney was there with

Prof. Ishikawa and his previous boss, Frank Lipson who had been coming to Japan since the 1960s. Unfortunately I was unaware of that. So I might have got to where I did a little quicker had I known Frank Lipson.

Following that, a number of things happened. We developed a good relationship with JUSE, and more or less at the same time, or just after that, in the US, there was a TV broadcast called “If Japan can ... why can’t we?” And I decided to be a little bit more positive than that and we put on a conference called “If Japan can ... so can we.”

We then started to take industrial study tours over to Japan. So we brought people over here. JUSE organized us. We usually attached them to a TQC conference anyway, and then we’d go and visit some companies. We saw a lot of companies. I made several trips to Japan with study tours.

During those early years, there was only YKK operating in the United Kingdom. Japanese companies but other companies like Nissan and so on were considering in order to set up plants in the UK. At the same time, they were worried about our culture. They didn’t know whether they could operate Japanese methods in British culture. So I was taking them to some companies that had been operating following Prof. Ishikawa’s way. As a consequence of that, a number of them then came over, as you know.

But I just tell you one quick story before I wrap up on this. I was helping companies introduce QC Circle. I went to one company just north of London, a computer manufacturing company. I was talking to their management about it and how we would do the training and so forth. And we agreed on everything. And I was just about to go and do the training when their leading shop steward, who was a very, very tough union character, said, “I want to sit in on the training.”

And I thought he had probably negative motives in that. He didn’t give any reason why he wanted to do that. But I said, “I don’t have a problem with you participating in the training. I don’t want you to either sit at the back nor just take notes because it will destroy the environment.”

Anyway, we went through the training. He did participate and hadn’t said anything to me at all. I didn’t want them all to go home after the last day of training without getting some sort of feel for what was in his mind. But I didn’t want to make a point of asking him and he was sitting halfway around the room. I asked the first person what they thought of the training and then the next one and the next one. And finally I got to him. What he said gave me quite a surprise.

He said, “The reason I wanted to come on this course was because in another factory you trained my father. Before he did the training, he would come home at night, throw his coat on the hook, he wouldn’t speak to anybody, he just sat down, watched the

TV, went to bed, and that's how he was day after day.

But after he got involved in QC Circle, he came home and talked about what he was doing and he was so interested in it. All that I wanted to find out was what is QC Circle that made the big change in my dad." And I think for me that sums up what it's all about.

Last night, Dr. Kano said how good it is. Even though 20 or more years passed after Prof. Ishikawa died, so many people are coming here today to this event. And I thought that overnight and I thought to myself, well, when Prof. Ishikawa came to the UK in 1979 he said that in Japan there were 1 million quality control circles involving over 10 million Japanese workers. It was probably more than that because those were the ones that were registered with QC Circle headquarters. There were probably 10 times as many as that in reality.

Since then, as you probably know, quality control circles have spread and have continued to develop in Japan. I heard a few years ago, I don't know whether it's true or not, but somebody told me there are 20 million quality control circles in China. I know there are very large numbers in India, the Philippines, Malaysia, Singapore, Cambodia, Vietnam, and even Mauritius, but even on top of that there are quality control circles now in schools. In Nepal, it's in the school curriculum for children to be taught quality circles and quality control circle techniques. I know that two years ago they estimated there were over 28,000 schoolchildren involved in it there. There are tens of thousands of schoolchildren involved in it in India and there are 24 countries of the world, as I understand, that have the same sort of thing.

So we remember Prof. Ishikawa died about 20 years ago. But how many people in history, of any race, religion, whether they are management consultants or whatever, could possibly claim to have had such an impact on the lives of so many people and many, many more to come in the future? That is an incredible testimony to him.

And the wonderful thing about QC Circle is that it has no passport. There are quality circles of every race, color, creed, across the world. I don't think a war has been fought by people with quality circles going with it or anything like that. Nobody's been tortured or murdered or anything like that as a consequence of quality circles.

Out of all of the things that anyone has done for humanity in the history of man. In my opinion, and I also don't think I'm exaggerating it, I think Prof. Ishikawa really should be remembered not for 20 years, not for 100 years, but I think way into the future of mankind.

That's just the thought I would like to leave you with so I'd like to thank you very much for listening to me.