I had served as outside director for HORIBA since June 1995, even though I was an amateur in management, especially with regards to technical matters. Although lack of experience in management never stopped me from asking many rudimentary questions during board meetings, with technical matters, I could only sit and listen. But for all my limitations, I know enough to be able to appreciate the achievements of HORIBA's technical teams in discovering, inventing, and developing new technologies, not only in our original area of measuring devices, but also in such fields as medicine. Although it would seem presumptuous of a novice to do so, I do have a few requests for our research teams.

One is to always maintain intellectual curiosity about everything. Doubt what is taken for granted. Always ask “why?” Make a habit of rethinking with your own mind. While you should respect the achievements of senior staffs and superiors, it is important to scrutinize what they’ve done, without being too nit-picky.

Another is to make a habit of expressing one's own doubts, questions and opinions, succinctly and as clearly as possible. And those on the receiving end must keep an open ear. In our country, virtue has always been in memorizing and repeating what we were taught. No doubt, memorization is important in any field, but there will be no progress unless we are able to openly debate differing ideas.
I had the opportunity to listen to the president of Yale University who was visiting Japan the other day. He noted the decline of Japanese technology, which had once surpassed that of the U.S., and argued that, “in order to remedy the situation, Japan must develop the habit of free debate.” A Harvard professor also pointed out that, “many Japanese students at our university who've completed their master's courses and wish to go on to doctorates ask us what they should choose as their research theme.” This professor found it “regrettable” that students who wish to go on to doctorates aren't able to decide for themselves, what they want to study. In the past, when Japan was trying to catch up with the West, it may have been enough to simply answer questions others had raised. But now, it does not suffice.

Naturally, most technical development personnel have science and engineering backgrounds, but I would like them to keep a keen interest in world affairs, and not just in their own field. Since 2003, I have been asked twice to give keynote addresses on Japan-US relations at the Japan-America Student Conference, and Americans students tended to ask better questions than their Japanese counterparts. What was surprising was learning that most of those American students were science or engineering majors.

In May of 2005, I was invited to Keio University’s Faculty of Science and Technology to discuss “How to Live in Society” as part of a Human Education Program. While what I discussed wasn't exactly what the organizers had in mind, my attempt was to encourage science and technology students to hold a broader perspective.

As a person who chose liberal arts because I lacked math/science proficiency, science and engineering graduates seem far more competent. While it is necessary to immerse oneself in one's expertise, one should also spend some time thinking in broad terms, about the future of the world, about one's country. Keeping a broad perspective on things will surely end up helping you in your area of expertise.