

Mentoring – Support for the Future of Our profession

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The authors have worked together for 40 years on a wide range of noise control engineering projects, first at Bolt Beranek and Newman (BBN) and now at Acentech. We have a career-long, close friendship that includes serving each other as trusted and respected mentors. Seldom does a week go by when one of us doesn't ask the other for advice related to a new proposal, sound measurements or analysis, noise control recommendations or preparation of a client's report.

Mentors are available to offer insights and guidance to colleagues and provide help to younger staff members as they advance in their careers to become outstanding professionals. We have worked with noteworthy mentors who have helped us improve our technical and problem solving skills, as well as our written and verbal communication skills. From mentors, we have learned what sets the excellent consultant apart from the not-so-excellent consultant.

During the early days at BBN, Leo Beranek served as a mentor to many as he practiced "management by wandering around" (MBWA). He would drop into staff members' offices to learn about their projects for current clients and would provide thoughtful comments as well as praise when warranted. He continues to provide encouragement to outstanding undergraduate and graduate students through his support for the the Institute of Noise Control Engineering of the USA (INCE-USA) Award for Excellence in Noise Control Studies.

Another example of providing encouragement to outstanding students is INCE-USA's newest award, the Michiko So Finegold Award that is funded by the Michiko So Finegold Memorial Trust. This award provides funding to graduate students studying in the fields of noise control engineering, noise effects research, or development of noise policies to facilitate their travel to national and international professional meetings and conferences. It can also be used to provide financial support to graduate students in the U.S. studying in these areas.

Sound & Vibration magazine has provided a unique platform for us to share information and insights with our worldwide professional colleagues for more than 45 years. Certainly a form of mentoring that we all appreciate. In recognition of his contributions, *Sound & Vibration*, with Jack Mowry as publisher and editor, received the 2013 INCE-USA Award for Excellence in Noise Control Engineering.

Mentoring is an ongoing mutually beneficial and supportive relationship between colleagues or friends who willingly and freely share their experience, insights, and

knowledge – most often without expectation of remuneration. The mentor is often, but not always, the older individual who shares knowledge with a younger friend or colleague. It is our experience that sometimes the younger individual, particularly those with knowledge of new technologies, serves effectively as the mentor in some relationships. Mentoring relationships form a two-way partnership with technical information, growth, and satisfaction flowing in both directions.

A book titled *Sound Ideas: Acoustical Consulting at BBN and Acentech* was written by Eric Wood and Deborah Melone. It includes a range of insights gained from friends and colleagues who are experienced and respected consultants who have worked with clients for decades. They contributed suggestions or advice for the younger men and women who are starting careers in acoustical consulting. Advice was provided by seven consultants: Eric Ungar, Bob Hoover, Dave Keast, Laymon Miller, Carl Rosenberg, Jack Curtis, and Bill Cavanaugh. It is our opinion that this represents a form of reaching out, sharing, and mentoring. Copies of the book can be requested by sending an e-mail message to Eric.

The following examples represent a form of reaching out, sharing, and mentoring:

- All of a consultant's technical knowledge is useless unless it is communicated to the client clearly and accurately. A consultant must be able to write clearly and precisely and without technical jargon in a way that permits the client to understand him without the possibility of misinterpretation. He also should be able to present his recommendations orally in a precise and convincing manner to inspire the client's confidence.
- Do not tell a client what "you feel" should be done. Rather, tell a client what "you think or believe" should be done. A client hires a consultant to think and not to feel, like a politician or a news anchor.
- An excellent consultant focuses on solving the client's problem. He/she approaches the problem like an old-fashioned physician. He is honest in his dealings with his client. If he needs help, he pays for it. If he thinks he cannot do it, he recommends someone else who can.
- Consulting includes teaching. Teach the client enough about the *what, why, and how* of the acoustic decision or reasoning, so that the client can make informed decisions when the consultant is not present. If the explanations get too long, offer a preface that summarizes the results (executive summary).
- Understand the broad implications of

proposed solutions, not just the separate engineering tasks.

- During the course of a project, even brief contacts with a client to keep them well informed about the progress of your work will often keep them happy, if there is no other way for them to know what you are doing on the project. So many times, problems in consulting relationships could easily have been avoided by timely contacts with an anxious client. Remember that, beyond the provision of good professional services, you want to do your best to encourage a client to look forward to coming back to you the next time your services are needed.
- Clarity and concision are the essential ingredients of any consultant's report, whether delivered orally or in writing. As one mentor consultant put it many years ago, "a client wants to be dazzled by your brilliance, not baffled by your verbiage!"


Mentoring encompasses more than just the day-to-day aspects of the technical job assignments that one is responsible for and must be performed. It also includes sharing insights and lessons learned about policies and protocol, both written and those lurking in the background, within the company where you are both employed. In a consulting environment, it also includes the skills needed to anticipate and respond to sometimes less-than-clear client needs and expectations.

Effective mentoring yields a wide range of benefits not only to the individuals but also to the company. This includes better technical performance and communications, increased productivity, fewer errors, more effective staff development, and staff satisfaction leading to less turnover and retention of quality individuals.

Mentors should be ready to serve as a sounding board for new ideas to be discussed and explored. They should be good listeners, knowledgeable, and prepared to offer constructive insights and value-added feedback from various perspectives. Mentoring relationships occur and are important among family members, friends, and colleagues at work.

We informally interviewed a sample of colleagues and discussed their experiences with mentoring programs at other organizations as well as at Acentech. The other organizations included undergraduate and graduate schools, the U.S. Army, a city environmental department, large engineering firms, large industrial companies, mid-size product companies, and large, mid-size, and small environmental acoustical consulting firms. Provided below are suggestions we received about mentoring programs:

- One-on-one mentoring is preferable to group mentoring
- Formal programs can work if personalities match
- Senior staff members are more preferable as mentors than managers
- Multiple mentors are preferable to a single mentor
- All is good; anything is good
- It's important to give direction and pass along experience
- Mentors need to know the right level of challenge
- Performance feedback is useful for professional growth
- Mentoring helps to retain people in a company and a career and demonstrates that more is at stake than a job
- A mentee should identify a "go-to" person
- Companies should encourage a mentoring culture between junior and senior staff members, but keep it informal, let it happen, and don't play the matchmaker
- One-on-one interaction with a colleague on an individual project is the most effective teaching device of all
- Teach practical items (e.g., how to do measurements, effective writing skills, etc.)
- Avoid imposed mentoring lectures
- Hire those who want to learn and eventually to teach
- Include mentoring (training and education) time in the budget, although strive to keep mentoring informal
- Schedule regular weekly group meetings where project challenges can be discussed among several consultants with a variety of perspectives

We suggest that you establish and participate in mentoring programs at the company where you work. Mentoring will contribute to your future, your colleagues' futures, and the future of our noise and vibration control profession. Additional views written by Andy Harris, Nick Miller and Ben Sharp are available in the proceedings for Inter-Noise 2012. 

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