

Abstract: *Mentoring is a one-on-one experience between the mentor and the individual being mentored. The mentored is in the driver's seat, and the mentor needs to be someone close and trusted by the mentored. The mentor must play the supporting, not the lead role in the relationship. Although the mentor must be an accomplished individual, being accomplished is solely in the eyes of the mentored. To provide information on career opportunities is not the sole reason to have a mentoring program, although someone being mentored generally does get guidance in career planning once the mentoring relationship is formed.*

Let me first provide you a definition and context for this article.

Mentor: from the Greek meaning “advisor” or “wise man”; a close, trusted and experienced counselor or guide. The mentored is touched by another’s caring and enjoys self-esteem and personal growth. The mentor also benefits – gaining insight, purpose and vision.

Context: The text of this article was an invited presentation to the 1998 Ocean Science Educators’ Retreat (OSER) organized by the Consortium for Oceanographic Research and Education (CORE). From the definition, one might assume that mentoring occurs naturally in all research and academic institutions; however, many institutions have begun special mentoring programs because they found it was not occurring. Are we not mentoring those who need and want it, or are we doing something, but it isn’t mentoring? Hopefully, some of the insights presented in this article can be of benefit to persons or institutions having, or thinking of initiating, mentoring programs.

To me, mentoring is about leaving a “legacy.” A legacy that results from the fusion of the mentor’s guidance (i.e. concepts, insights, capabilities, etc.) given to the mentored, and the mentored’s assimilating that guidance. A good mentor, like a good major professor, wants the mentored to know and be capable of using all the “tools” he or she has, and to possess all of their insights with respect to being successful in the science and technology profession. A continual reward for the mentor is watching the evolution occurring in the mentored, many times not even recognized by the mentored. However, the “crowning glory” of the experience is when both recognize that the mentor’s guidance has been assimilated into the mentored in

a unique and enhanced manner, creating the legacy referred to above. To accomplish this level of mentoring requires a great deal of mutual trust and respect.

Over the long term, the best institutions maintain excellence and quality by having preceding generations leave behind their legacy, i.e. their best and brightest concepts, ways of doing science and technology, feeling for the institution, knowledge of how the organization treats its people, etc. People in these organizations believe in their institution, are open to advising and encouraging younger people or subordinates about the institutional culture, want to help them “get ahead” in their career, and are willing to offer assistance. It is clear in these institutions that those who need mentoring do not threaten those who serve as mentors. Mentoring occurs at all levels in these organizations – by the heads of the institutions and people many levels down in the chain. Mentoring should not be localized to simple “chain-of-command” situations; for example, more senior graduate students, or post-docs, or even Department Chairs serve as excellent mentors to junior graduate students.

I must give you a bias I have. I think mentoring begins with and belongs to the mentored. Those mentored are junior to the mentor, and they are seeking something with respect to their career and its development. They need to be the ones out front in looking for wise counsel, and be willing to put forward the necessary and consistent effort to be mentored. A person out beating the bushes

to find someone to mentor, or pushing a subordinate to be mentored, doesn’t fit the ideal role model of a mentor.

What does mentoring require and is it for everyone? Mentoring is a one-on-one interaction and, therefore, is definitely not suitable for every combination of two people in an organization. A person mentored must

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know him or herself sufficiently to recognize their own strengths and weaknesses, must be a good listener and maintain confidentiality, and must be capable of initiating ideas, projects, etc. Importantly, he or she must believe in themselves without arrogance, ego, or self-importance, just a basic faith in their own abilities. The mentored must know or be open to knowing themselves fully.

The mentor doesn't make things happen, the mentored does.

Mentoring requires a willingness to work, a gentle assertiveness by the person mentored to speak up when required, a flexibility in how they deal with changing situations, and a loyalty to the mentor and the organization or institution.

A person mentored shouldn't have laid out all their goals, but seek with the mentor to define and achieve new goals for their career. If they have laid out all their goals, they are missing greater than half the fun of getting to where they will be, and as important, ruling out potentials they are not even aware of. The mentored should be committed to undertaking endeavors with some risk, some of which will result in failure. Wanting not to fail, versus having a debilitating fear of failure, is a great motivator and is required to prepare people for increasing responsibilities and authorities in their careers. You learn all sorts of simple truths and information about yourself from failure: how you handle it, what could you have done to avoid it, could it have been avoided, how did you recover from it, etc. If the mentored can't handle failure, he or she needs to understand that fact so as to avoid those leadership positions where they might be the one responsible for taking the risk.

Overall, the mentored must have a strong desire to keep learning and be a self-directed learner. As Harry Truman said, "The most important things in life are the things you learn after you thought you knew it all." Not all persons have these attributes.

Now let me turn to the attributes of a mentor. The mentor's job is not as complex. First and foremost, however, for someone to be a mentor they must be approachable, otherwise a person desiring to be mentored will not seek them out. This is fundamental. In this there are no magic answers, as it is so dependent on what the mentored is looking for. However, I have found that persons who are thoughtful, make a point of approaching and talking to others, especially subordinates and younger staff, are not argumentative, keep open doors, and are generally friendly and well regarded both personally and professionally, are the ones likely to be found mentoring.

The mentor is sought to be a counselor and teacher, a thoughtful listener, a trusted confidant and advisor, not a friend. The mentor must be capable of both encouraging and challenging the mentored, and think highly

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enough of him or her to be their sponsor. People live up or down to our expectations, therefore the mentor must always maintain a positive approach to the mentored. The mentor should discuss situations and give behavior-based feedback, not directives. The mentor must be an even better listener than the mentored, for as the say-

ing goes, "Seek first to understand, then to be understood." The mentor must be flexible, have good organizational insight, and have high standards for conduct and products.

However, the single most important quality the mentor has to have with respect to the mentored is an open expression of willingness to give their time when the person they are mentoring needs it. To me, time is the most precious thing any of us has to give. We are all busy and each of us has only so much time available each day. A mentor must be willing to commit this most precious resource, frequently at times that would not be most convenient. Again, not all persons have the attributes needed to be a good mentor.

Sometimes it amazes me that, given the above attributes, any mentoring takes place at all. However, it is very prevalent, occurring all the time, in numerous organizations, and under a wide variety of formats and guises. It doesn't require a special program to make it happen. However, an organization that gives mentoring a special program status demonstrates, especially to the younger people and technical and administrative support staff, that they care about their development and future in the organization. But even without a special mentoring program, it is easy to begin mentoring.

In fact, in its simplest form mentoring occurs when one person approaches another person seeking information or assistance in enhancing their capabilities and receives an open willingness of help. The next time

there is a person in your organization that comes to you for assistance, take the time to listen to the person and their concern. Explore their problem or situation thoroughly, take into account other factors, both internal and external that are impacting the present situation and behavior, and help the person define the underlying or real issue. With that, together, you

can better establish what needs to happen, discuss obstacles that may be in the way, select the best approach, and develop a mutual plan of action.


I would like to relate a personal example of mentoring, one in which I was successfully mentored. The mentoring did not occur as part of a formal program, and I really didn't know that mentoring was what I wanted, nor do I suspect that the other person knew he was being a mentor. I was a new graduate student and my mentor was a fourth-year graduate student, and had been in the military and had had many other broadening experiences. He and I got along well and

enjoyed talking to one another, but we did not seek each other out to socialize as one would in a normal friendship. There was a mutual respect of opinions, and we would openly discuss and debate items without either one of us feeling like our ideas didn't matter. Generally I was on the "asking" side of questions. What I did know was that I respected this person for his capabilities, and that I wished to learn from this person and incorporate that knowledge into how I did business. I also felt that he respected me.

My mentor always had an open door and time for me. He would discuss any item that I brought up or that came along. He always held all information confidential. Generally the discussions were directly work related about how to accomplish something, but we also discussed issues related to feeling fulfilled by work and personal concerns that distracted from that. Personal items were discussed only in the context that they were an outside influence impacting particular items under discussion. Although some mentoring relationships have more discussion of personal issues than my example, workplace mentoring is generally not established for that purpose. I can't speak for my mentor, but I believe it was personally satisfying for him, and I can

say with certainty that it was very satisfying and special for me.

In my experience this example is not isolated, and it is how all of my successful mentoring relationships have occurred. Mentoring requires mutual trust and respect, which doesn't occur between strangers. This doesn't rule out establishing programs for mentoring, but in my opinion, it can help guide how these programs might best operate. As I said earlier, I think mentoring begins with and belongs to the mentored. The mentor plays a role, but it is a supporting role, and it is up to the mentored to know if the role he or she requires of the mentor is being fulfilled. If not, I think the mentored must be able to simply leave the relationship behind without breaking an agreement signed up to or other formal requirements.

I am sure everyone reading this has had a mentoring relationship of one kind or another, either as a mentor or as someone mentored. How do you know when you have had one? As Ralph Waldo Emerson said "One of the joys of life is that you can't help another person without helping yourself at the same time." If you have felt that way, then you have probably experienced a good mentoring relationship. 

Books Undergoing Review:

Data Analysis Methods in Physical Oceanography

By William J. Emery and Richard E. Thomson

Published by Elsevier Science

Coastal Ocean Prediction

Christopher N.K. Mooers, Editor

Published by American Geophysical Union

Books Received for Review:

Global Ocean Science: Toward an Integrated Approach

National Research Council – Ocean Studies Board

Published by National Academy Press

The Restless Sea: Exploring the World Beneath the Waters

By Robert Kunzig

Published by W.W. Norton

Tides: A Scientific History

By David Edgar Cartwright

Published by Cambridge University Press