

# *Effective Mentoring*

Rebecca Vandiver

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# **I. RESPONSIBILITIES OF A MENTOR**

# WHAT DOES IT MEAN TO BE A MENTOR??

- Mentors...
  - offer continuing guidance and support
  - are willing to share their knowledge
  - give emotional and moral encouragement
  - give specific feedback on one's performance

*“Effective mentoring can be learned, but not taught. Good mentors discover their own objectives, methods, and style by mentoring. And mentoring. And mentoring some more.”<sup>1</sup>*

Common goal:

To advance the educational and personal growth of the student.

# RESPONSIBILITIES AS A MENTOR

- Aspects of good mentoring practice:
  - 1) **Listen carefully** - Hear what the student says without first interpreting or judging.
  - 2) **Nurture self-sufficiency** – Encourage confidence and independent thinking.
  - 3) **Keep in touch** – Don't assume they will ask for help when needed. Be *approachable* and *available*.
  - 4) **Share yourself** – Express successes and failures.
  - 5) **Be constructive** – Provide feedback and give praise when deserved.
  - 6) **Talk to other mentors** – New mentors benefit from experienced mentors.

# COMMUNICATION

- Establish clear expectations
- Clearly define the project and a timeline for completion
- Learn of their strengths and weaknesses
- Make sure they understand the project
  - Have them explain their project back to you
  - Have them draw a diagram of the project or write a paragraph describing the project
  - If student makes an assertion in explanation, have them search the literature to verify it

## **II. IDENTIFYING CHALLENGES AND ISSUES**

# CHALLENGES AND ISSUES

- May be frustrating to deal with a “non-ideal” student.  
*“Being a good mentor necessitates accommodating a style that differs from our own.”<sup>1</sup>*
- Lack of confidence. “...performance is the product of a complex interaction among innate ability, experience, confidence, education, and the nature of the performance environment...”<sup>1</sup>  
*Send the message that you believe the student can succeed.*
- Student is not as advanced as we expected.  
*There is room for lots of different kinds of people and intellects in science.*

# CHALLENGES AND ISSUES

- As mentors, we should examine factors affecting a student's performance. Ask yourself the following:
  - Are my expectations reasonable for a scientist at this stage?
  - Has this student had the training necessary to succeed at this task or in this environment?
  - Does the student understand what is expected?
  - Is this student disadvantaged in some way that makes the situation more difficult than it is for others?
  - Is the student experiencing a stress—inside or outside school—that is affecting their performance?
- Monitor prejudices and assumptions. Hold ourselves to high standards of fairness.

# CHALLENGES AND ISSUES

- When is a behavior something that other students should tolerate and when does it violate rights of others in the group? Consider the following questions:
  1. Is the behavior negatively affecting the productivity or comfort of others in the group?
  2. Will the student be more effective, productive, or appreciated in the group if the behavior or characteristic is modified?
  3. Is the behavior or characteristic sufficiently annoying to you that it interferes with your ability to work with the student?
- If behavior needs to be changed, make student aware of problem, be clear on type of change needed and why it is necessary.

# CHALLENGES AND ISSUES

- As you assess progress in your mentoring relationship:
  - Find your own style
  - Communicate directly
  - Emphasize in your mentoring the aspects of science that are the most important: ethics, rigorous analytical thinking, risk-taking, creativity, and people
  - Celebrate the differences among students

# **III. ADVICE FOR PRESENTATIONS AND PAPER**

# GUIDELINES FOR PAPER/POSTER PREPARATION

Have the students consider the following:

- Who is the audience?
- Why should the audience care?
- Determine the major points
- Think about clarity
- Think about simplicity
- Practice presentation more than once

\*\* Be constructive but not overbearing. It is the students' product, not the mentor's!

# SCIENTIFIC PAPER

- Assist the students with the organization of a scientific paper:
  - Abstract
  - Introduction
  - Methods
  - Results
  - Figures and Tables
  - Discussion

# REFERENCE

1. Handelsman, J., Pfund, C., Lauffer, S. M. and Pribbenow, C. M., “Entering mentoring: a seminar to train a new generation of scientists,” Board of Regents of the University of Wisconsin System (2005).