Modern Dynamic Mentorship

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Modern Mentorship

A dynamic reciprocal relationship in a work environment, between an advanced career incumbent (mentor) and a beginner (protégé), aimed at promoting the career development of both.
Stages of Mentor-Protégé Relationship

Stage 1: Initiation Stage *

Stage 2: Protege Stage

Stage 3: The Breakup

Stage 4: Lasting Friendship

Outcomes of the Relationship

Mentor | Protégé | Institution
Why be a good mentor?

• Personal satisfaction
• Attract good students
• Stay on top of the science
• Strengthen professional network
• Change the face of science
Emerson writes:

“(A mentor) is a mind that startles us, that elevates our feelings by sharing our views of life.”
Advice for New Mentors

- Be a good listener
- Build a relationship
- Don’t abuse your authority
- Foster independence
- Provide introductions
- Be constructive
- Find your own mentors
Characteristics of Effective Mentoring

- Mutual trust
- Understanding
- Empathy

--Willingness to work together towards the career advancement of both.
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Outcomes of the Relationship
Mentor | Protégé | Institution

*
The making of a protege

• Take students seriously
• Don’t dictate answers
• Be frank and direct
• Help student build self-esteem
• Invite other mentors to help
• Address fears without belittling
• Meet on “neutral ground”
Mentoring High School Student or Undergraduate

- Play active role in academic advising
- Allow student to get a “feel” for science, scientific careers, and potential projects
- As a research advisor:
  - Assign an appropriate research project
  - Set clear goals and strategies for achieving them
  - Define your responsibilities and mechanisms for students to maintain regular feedback
  - Promote students to the next level
Mentoring a graduate student

• Plan appropriate curriculum
• Help student choose appropriate mentors
• As thesis advisor:
  – Allow student to develop appropriate project
  – Help put together a committee
  – Provide opportunities for additional training appropriate to student’s career goal
  – Ensure students publish/present
  – Incorporate student into scientific network
  – Promote students to the next level
Mentoring a Post-Doc

• Enable fellow to develop project that will ultimately be taken with them
• Help obtain appropriate funding for fellow
• Integrate fellow into institutional activities
• Keep on eye to the career market and keep fellow informed
• Support additional learning/training appropriate to career goals
• Enable publish, present, participate in proposal writing.
• Promote to next level
Skills for All Levels

- Nonacademic abilities
- People skills
- Leadership
- Teamwork
- Creative thinking
- Effective communication
## Mentor Attributes

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
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<tbody>
<tr>
<td>• Available</td>
<td>• Unavailable</td>
</tr>
<tr>
<td>• Intelligent</td>
<td>• Poor Feedback</td>
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<tr>
<td>• Challenging</td>
<td>• Insensitive</td>
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<tr>
<td>• Innovative</td>
<td>• Arrogant</td>
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<tr>
<td>• Invites to Field</td>
<td>• Disorganized</td>
</tr>
<tr>
<td>• Personable</td>
<td>• Not funded</td>
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<tr>
<td>• Renowned</td>
<td>• Fails to offer constructive criticism</td>
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<tr>
<td>• Enjoys Mentoring</td>
<td>• Expects too much</td>
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<tr>
<td>• Sets clear goals</td>
<td>• Overworked</td>
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<tr>
<td>• Has necessary lab resources</td>
<td>• Overly protective</td>
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<tr>
<td>• Attends conferences with students</td>
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</tr>
<tr>
<td>• Willing to spend extra time with students</td>
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<tr>
<td>• Offers opportunities for community outreach</td>
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<tr>
<td>• Similar political views</td>
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Stage 1: Initiation Stage
Stage 2: Protege Stage
Stage 3: The Breakup *
Stage 4: Lasting Friendship

Outcomes of the Relationship
Mentor | Protégé | Institution
The Break-Up

“Your primary obligation is the (mentoring) education of the student.”
Stages of Mentor-Protégé Relationship

Stage 1: Initiation Stage
Stage 2: Protege Stage
Stage 3: The Breakup
*Stage 4: Lasting Friendship*

Outcomes of the Relationship

| Mentor | Protégé | Institution |

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Topics for Break-Out

• What are appropriate measures of student success for the high school and/or undergraduate student?

• What is an appropriate project for the high school and/or undergraduate student?
Further topics

• How do we overcome our negative attributes?

• How do we engender greater value for mentoring?
Resources

- The Committee on Science, Engineering, and Public Policy’s (COSEPUP) has on-line versions of useful resources including grad school planning guide, and responsible conduct in research (http://www2.nas.edu/cosepup)

- The National Research Council (CPC) (http://www2.nas.edu/cpc) has an on-line mentoring center, data on trends in the job market, and useful links to job, research, and funding listings.

- The AAAS Science’s NextWave (http://www.nextwave.org) has open forums on topical issues, including alternative science careers, and practical science career advice.