September 25, 2002

Laboratory Performance Appraisal

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Abstract

Key words: laboratory • evaluation • mentor • adviser

An important aspect of the principal investigator's job is to mentor students and postdocs and help them develop as scientists. In guiding my own lab members, I knew that it was important to give them feedback in order to build on their strengths and help improve their abilities. I found it very difficult, however, to tell lab members their good and bad points constructively. I realized that in many jobs, employees participate in annual reviews that are guided by a form that divides the expectations of a position into specific categories. I have designed a similar form geared toward students and postdocs working in the laboratory. With some modifications, it could also be adapted for technicians and undergraduates. I have found this to be a very productive way to emphasize their strengths and point out their shortcomings; it is also useful in allowing them to make suggestions and air grievances.

[Performance Appraisal Form]

Citation: *K. Ottemann, Laboratory Performance Appraisal.* Science's SAGE KE *(25 September 2002).*

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Laboratory Performance Appraisal

This form is being handed out as part of our annual lab evaluation. The purpose is for me to help mentor you to become the best scientist you can. Please look through the following areas of lab performance and ponder how you do each now, and what you would ideally do.
After you have a few days to think about this, I will meet with you to hear how you think you are doing, and to let you know how I think you are doing. Then we will agree on things to change/work on for the coming year.

Start by thinking of these three questions:
1) Why are you here in grad school/the lab?
2) What are your goals for your time here?
3) What do you want to do in the future?

<u>Categories in which you are evaluated for lab performance</u>

A. Experimental

1. Experiments should be
   1) Planned in advance when possible
   2) Thought out
   3) Controls included
2. Are experiments carried out with accuracy?
3. How about perseverance—do you keep going/repeat experiments if needed?
4. Do you perform experiments with enough rigor to justify conclusions?
5. Are you displaying appropriate independence? Do you ask for help when you need it, but also think through experiments on your own?
6. Do you know when to quit, change plans or conclude you have done the experiment enough?
7. Are you keeping the end goal in mind—what would be in a paper if you were to write one, or holes in your research that would prevent you from drawing conclusions?

B. Lab citizenship

1. Is your demeanor pleasant, interactive?
2. Do you help others? Do you ask others for help?
3. Are you aware of the lab—noticing if something needs replenishing, cleaning?
4. Do you clean up after yourself?
5. Do you do your lab jobs? Participate in lab clean-ups

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C. Communication within the lab and outside of the lab

1. With your PI/Mentor
    a. Do you tell me (the PI) your results/what you are up to regularly?
    b. Are you happy with your level of interaction with the PI?
    c. Do you seek out the PI when needed, but operate independently where appropriate?
2. With others (inside and outside of the lab)
    a. Do you regularly tell others in the lab what you are doing?
    b. Do you communicate with other people outside of our lab? Who? How does that go?
    c. Are you happy with your level/amount of science discourse?

D. Productivity

1. Are you carrying out experiments in an efficient way?
2. Are you getting "enough" done to accomplish your goals? Should you be spending more time carrying out experiments, or more putting more effort into the time you are in the lab?
3. Do your at-work hours overlap with those of others so you can both help others and benefit from them?
4. Are you setting priorities and doing experiments in an order that allows you to get the most done with your time?
5. Are you focused when you are in the lab?

E. Notebook, Record Keeping and Organization

1. Is your notebook?
    1) Thorough?
        • Each experiment described as to methods
        • Results clearly articulated
        • Conclusions and a Discussion
    2) Up-to-date?
    3) Readable
2. Are you writing too much in a pre-notebook or on scraps of paper, or are these not being Transferred in a timely way to the real notebook??
3. How are you organizing your literature/papers—can you find papers in a timely manner?
4. Are you writing up your results and thinking about future papers?

F. Gain of Scientific Knowledge and Critical Thinking

1. What steps are you taking to expand your scientific knowledge?
2. What journals do you regularly look at, what literature reviews do you regularly do?
    Specific to our organism (fill yours in here)
    Specific to our field (fill in)
3. Are you thinking critically about your experiments? How about finding alternative approaches by searching the literature or talking to others?
4. What on-campus seminars do you regularly attend? Is there a way you could improve your participation/what you learn from these?

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G. Lab meeting participation

1. Do you ask questions?
2. Do you answer questions?
3. Are you putting enough effort into the journal club papers to participate in discussions? Is there something you might change about your effort to enhance your participation?
4. Do you volunteer to present?
5. When you present your own research, is your presentation clear and thought out?

Bigger Picture and Goals:

1. What are some things you would like change, or work on changing? What steps will you take this next year to accomplish these goals?

2. What is one (or a couple) of things you would change about the lab (including supervisory style)?

3. Is there anything that you would like to get out of the lab/work environment that you are not getting now?

Your name: _____

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