

# Memo to the Faculty

Faculty Teaching Excellence Program

Office of Academic Affairs, University of Colorado at Boulder

Number 28

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## Explorations with Students and Faculty about Teaching, Learning, and Student Life

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### Brief Summary of the Main Findings

#### *A. Interactive relationships organized around academic work are vital.*

There is a common wisdom at many colleges that the best advice for students, in addition to just attending classes and doing homework, is: get involved. Get involved in campus activities of all sorts. Writing. Singing. Drama. Music. Politics. Athletics. Public service. This is excellent advice. I continue to share it with my own advisees. But there is a different kind of involvement, a more subtle kind, and the undergraduates who are both happiest and academically most successful stress its importance.

Nearly without exception, these students have at least one, and often more than one, intense relationship *built around academic work with other people*. Some have it with a professor. Others have it with an advisor. Some build it with a group of fellow students outside of the classroom. The critical point is that this relationship is not merely social. It is organized to accomplish some work—a substantive exploration that students describe as “stretching” them. And nearly without exception, students who feel they have not yet found themselves, or fully hit their stride, report that they have not developed such relationships. Any college can take several concrete and low-cost steps to help students work more collegially.

#### *B. Students value strong writing skills. Many benefit enormously from a few specific suggestions.*

Of all skills students say they want to strengthen, writing is mentioned three times more than any other. When asked how they in fact work on their writing, students who improve the most describe an intense process. They work with a professor, or with a writing teacher, or with a small study group of fellow students who meet regularly to critique one another’s writing. The longer this work-related engagement lasts, the greater the improvement.

Some students improve their writing dramatically at college, while others show less improvement. Interviews reveal that those who improve the most approach their work in particular ways. Their teachers help them in particular ways. Sharing these findings in detail allows students, and teachers in many different classes, to profit from the experiences of others.

#### *C. Advisors can help students to make a few key decisions that will shape their entire college experience.*

Young women and men arriving at college immediately confront a set of decisions. Which courses to choose? What subject to specialize in? What activities to join? How much to study? *How to study?* Such decisions are intensely personal. Often they are made with little information. Yet the consequences can be enormous. A subject that is bypassed, or study habits that are mismatched for certain classes, can result in limited options, reduced opportunities, or closed doors. Advisors play a critical role. They can ask a few questions, and make a few suggestions, that will affect students in a profound and continuing way.

Fortunately, there is much to learn from the experiences of students who have had particu-

larly *successful* advising. While choosing classes is at the top of most lists, good advice on how to study outside of class and how to allocate time is also crucial. Students offer specific suggestions to help advisors and advisees connect more personally and more productively. This report gives several such suggestions.

*D. Undergraduates have strong views about how science faculties can attract and keep more students.*

There is a common wisdom that most students arrive at college with little interest in studying science. The data show otherwise. More than half of Harvard freshmen express a strong interest in doing some work in science. Nearly half plan to concentrate in a science.

A large fraction love the experience. They work very hard, they feel challenged, and many choose science as a lifelong commitment. In contrast to this happy group, a significant minority enter college with a strong background and plans to emphasize science, but soon switch away to another field.

When asked to describe how they approach their work, students from these two groups sound as if they are describing different worlds. Those who stay in science tell of small, student-organized study groups. They meet outside of formal classes. They describe enjoying intense and often personal interaction with a good lab instructor. In contrast, those who switch away from the sciences rarely join a study group. They rarely work together with others. They describe class sections and lab instructors as dry, and above all, impersonal.

Science professors who succeed in structuring their classes and labs to help undergraduates work collegially are honored by students and mentioned repeatedly. The word "inspiring" is used often. These professors attract specialists in both sciences and other disciplines to their courses. Their success is not due to some mysterious charisma. It is due to the way they organize the work in their courses.

*E. An unexpected finding: Foreign languages and literatures are the most widely appreciated courses.*

Students enjoy courses in foreign languages and literatures enormously. They rate the workload as equally enormous. Undergraduates give these classes higher praise than any other subject or course categories except small tutorials. And they give clear reasons why they appreciate these classes so much. The reasons have to do with the way language classes are structured and taught.

Alumni are even more fervent. When asked to give advice to undergraduates, nearly all urge more intense study of both foreign languages and literatures. Many suggest programs to incorporate such classes as part of each student's study plan.

**The Broad, Overarching Finding: Students' academic performance and satisfaction at college are tied closely to involvement with faculty and other students around substantive work.**

It gives a college advisor great satisfaction to see an advisee thrive. Yet for a few students, their experience at college is clearly disappointing. The goal of this exploration is to search for patterns. Why is college so fulfilling for certain students and less so for others? Students report that certain course choices, decisions they make, and study habits lead to a successful college experience. Taken together, the detailed responses add up to a broader, recurring theme.

*Interactive relationships.*

The big point—it comes up over and over as crucial—is the interpersonal nature of academic involvement and academic success. Nearly every student who describes strong academic performance can point to a specific activity that ties academic work closely to another person or a group of people. The other person often is a professor who is supervising the student's work in a small class. Or the professor may supervise the student as a research assistant in work outside of class. Sometimes it is an assistant, a teaching fellow, who is young and enthusiastic and can clarify for an undergraduate what it means to do good work in introductory-level courses. For some students the academic colleagues are one or two special friends who share an interest, and with whom a student spends hours discussing work in specific courses. For others academic colleagues come from the regular activity of meeting with a study group of fellow students outside of class. Whatever the details, these students are *engaged with others* on campus, and this engagement is built at least in part around academic work.

It takes a certain amount of self-confidence and initiative to put such interactions into practice. So I questioned students directly about this. What specific steps would they recommend to an incoming freshman, especially a slightly shy or uncertain incoming freshman, that he or she can take to begin developing such interpersonal activities? Responses to this question converged quickly to two specific suggestions.

*Interactive classes.*

The first suggestion is to choose several small classes that encourage in-class interactions. Sometimes the work in such courses will severely press the limits of what freshmen—or any other students—believe they can handle. But the payoff can be enormous. This is no big surprise. In a small class, each student gets to know the professor well and vice versa. At least as important, each student has an opportunity to get to know several others who share one feature if nothing else—they are all in this course together. Through such classes students form friendships, some that are personal and others that are built around the substantive work of the course.

For many students, taking several small courses as a freshman shapes much of their academic trajectory for the next three years. One group feels the special benefit is working closely with a professor on a topic the professor cares deeply about. A second group emphasizes that small classes present an opportunity to get far more personal feedback than is possible in large classes. A third group points out that small classes are ideal for helping students discover whether they want to pursue a subject to more advanced levels in the future. And a fourth group, the largest, brings up a side benefit of choosing several small classes as a freshman—that in small classes you simply must speak up. All acknowledge that for some freshmen this will be hard. Yet nearly without exception, upperclassmen consider this by far the most important training a freshman can get. One student says simply, "That's why I'm here."

*Studying outside of classes.*

Students' second suggestion for interpersonal engagement is not unanimous. Just over half bring it up. It is the value of forming small study groups, with fellow students, that meet outside of class once or twice a week. The typical size of such groups is four to six students. They meet for an hour and a half to two hours. They nearly always include both men and women. Students stress that these are not intended to be "men's groups" or "women's groups"—they really are designed to be *study* groups. Those who participate in such groups take them very seriously.

Nearly every senior who is part of a study group considers this activity absolutely crucial to academic progress and success. Yet these same passionate advocates acknowledge that some students, as a matter of personal preference, are loners when it comes to studying. They may feel uncomfortable working in groups. The advocates recommend that all students should at least consider, or try, participating in such a group. If it

doesn't work, a student can at least get some valuable self-insight along the way.

One crucial caveat. Everyone should understand that these study groups *meet only after each member has done the readings, or the problem set, in advance*. This way, each member brings to the group a set of ideas, or questions, or work on a problem set. The effort will collapse quickly if members drift in too casually or without preparation.

*Suggestions for professors.*

I invited many students to make concrete suggestions to faculty. What can a faculty member do to enhance substantive engagement with the work? Students have no trouble coming up with suggestions. They also point out that many professors do this already, and do it well. Two suggestions in particular are made by many students.

## 1. Create study groups.

One suggestion is for professors who teach large courses. Students understand it is unrealistic for a university to offer introductory courses to popular fields, such as biology or economics or chemistry or history, in very small classes. Such courses have large enrollments everywhere. But in these large courses, a professor can encourage student study groups to work together outside of class. In fact, some professors deal with this challenge directly. They don't just urge students to study regularly in small groups outside of class—they actually create the groups. It is easy for a professor with a hundred or more students to divide them into groups of five or six. Each group then must find its own time and place to meet, but at least the first step—creating the group—is in place for everyone, even those who normally would be hesitant or shy about participating. Students report that in some introductory classes the professor goes one step further. He or she meets with each of the small groups, at least once early in the semester, to help it get started. This demonstrates to students that studying in certain ways outside of class is in fact an integral part of the class.

## 2. Share papers in advance.

A second suggestion is for professors who teach small classes. It applies especially to any class that has several writing assignments over a term, and where the professor leads class discussion. The suggestion is to ask several students, each week, to prepare their papers a few days early. Then photocopy them and leave copies in a place where everyone else in the class can pick them up and read them before the next session. Class discussion can then be built, at least in part, around the students' papers everyone has read.

This sounds simple. The logistics are manageable. Several professors teaching small classes here do it now. Students from these classes rave about the benefits. First, those who are writing "this week's papers" work day and night to do a good job. After all, their work won't just be seen by one person, the professor—it will be read by everyone in the class. Second, the student writers gain from writing for an audience of their peers. Traditionally, students write papers for a professor, and write them a certain way. They assume they are writing for an expert on the topic. Therefore they may not bother to explain assumptions, or to spell out every argument in detail. Writing for one's fellow students changes the author's voice. Several students report that the first time they were asked to do this, they struggled for days thinking about how to change their presentation. Writing for a real audience of peers is very different from writing only for their professor to get a grade.

Still other benefits flow from this simple, low-tech idea. Class members make reading their fellow students' work before class a high priority. They know their own turn will soon come, and that others will be reading and discussing their work. Therefore, since all members of the class actually do the readings, and do them seriously, class discussion is enriched enormously.

Several seniors bring up one final benefit of sharing papers in advance. They say that seeing fellow students' work opens their eyes to new possibilities. They report feeling empowered in their own work as they see for themselves how different ways of presenting an argument can work well. Many add that in addition to seeing

different styles of presentation, they become able to distinguish different levels of excellence.

Notice how this format capitalizes on the principle of students' engaging with faculty, or with one another, around substantive ideas and academic work. When students' papers are read by the entire class, an overview of different styles and arguments that heretofore has been available only to the professor now becomes available to each student. Most love it.

### 3. Avoid drifting in and out anonymously.

There is one message that comes through all these observations loud and clear. I will put it in stark, negative terms. To come to Harvard or anywhere else and select four large classes each semester; to drift quietly and anonymously in and out of those large classes; to be silent in a section or in a smaller class; and to study alone without even trying to work with fellow students outside of class—maybe this will be satisfactory for a few people, but students overwhelmingly report exactly the opposite. Harvard, and so many other colleges and universities, offers each person certain opportunities to interact with faculty members and other students around substantive work. Some mechanisms are formal, others more informal. A student may have to dig in and take some initiative, such as joining or even starting a study group. But those now doing these things couldn't be clearer—they say it over and over—the payoff is extraordinarily high.

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