

## Choosing Good Graduate Students

Arthur T. Johnson

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Your good grades will get you into graduate school. No, not necessarily. Undergraduate students aspiring to graduate work often think that it's their grades that will get them into grad school. So, they work hard and compete for the best possible grades, usually all A's these days, and hope for the best. Well, undergraduates, that isn't the whole story.

When we faculty members are asked to provide references for graduate programs, we are asked a number of questions about the candidate: can the candidate express himself or herself orally? In writing? Will the candidate make a good teacher? Researcher? How does the candidate relate to others? Does the candidate work well in groups? Does the candidate show leadership potential? Is the candidate creative? All of these are important attributes when potential graduate students are judged.

Letters of recommendation, also, rarely contain anything remotely associated with grades. What a good letter of recommendation includes are insights into a candidate's capabilities, personality, and strengths and weaknesses (mostly strengths) in the classroom, laboratory, and when working with others. Most recommenders are asked to compare the candidate to others in their class, and these comparisons are only partially related to grades. After all, nearly all candidates for graduate school have very good to excellent grades. Grades do not distinguish one student from another very well.

Leadership is important. To be a good leader requires a combination of confidence, knowledge, and social skills. Undergraduate students who have had extensive experience working in groups, clubs, and student chapters can gain these skills. They are hardly ever taught, but they are as important to life success as any knowledge learned in the classroom.

My cohort of graduate students was, for the most part, hand picked. Before I offered an assistantship to a prospective grad student, I got to know them as well as I could. Most of my graduate students were selected from our undergraduate program in which I had taught them two or three courses. I was usually confident of their abilities by the time they had completed these courses, so I did not put much weight on their grades. Having an overall grade point average high enough to be accepted into graduate school was sufficient, and, under special circumstances, even that requirement was relaxed.

What I looked for most was the ability to fit with my grad student group. Of particular importance was whether the candidate had the social skills to get along with the others. If they all got along, they were not afraid to help and support other students in their endeavors, be it classroom work, research, or private lives. Ours was not a competitive environment, but a mutual support network. We did compete with others, but as a group,

as a team. Consequently, we became the most productive group in our department. We ran the most experiments, wrote and published the most papers, and had unusual success attracting outside funding. There was always activity in our lab, which became the envy of other faculty and grad students in our department.

With any group of individuals, each had particular strengths and weaknesses. One grad student was particularly creative, and had an idea to solve every problem. Not all of his ideas were worthwhile, but enough were valuable and were used. Another student was particularly good with instrumentation. If another student had a measurement problem, this student was glad to help. Other students were especially skilled with dealing with the human subjects we often tested. They could run an experiment while being sensitive to subject needs, and I had utmost confidence that these experiments were conducted correctly and according to the approved protocols. Still other students were very good at social skills, and became the glue to hold the group together running smoothly. If there was ever a major disagreement in our group, I certainly don't remember it happening. If a difficult situation was developing, we dealt with it consensually at our weekly meetings.

Each graduate student had his or her own research project that led to a degree. Although it was their own project, they could call on the others to help out when needed. In addition, we had common group research projects to conduct. All students helped with these. As a result, students learned by experience how to conduct their own projects. They developed confidence by familiarity.

Each student's name appeared as a coauthor on the papers about common research projects, and, as a consequence, each student had compiled a fair number of published papers by the time of graduation. One PhD student, in fact, had enough publications to her name by the time she graduated to have earned tenure if she had been an assistant professor. Each grad student was given the opportunity to write the first draft of a research paper, and senior authorship went to the writer.

I also expected my grad students to participate in classroom teaching, despite the fact that they were supported by research assistantships and not teaching assistantships. Teaching a class develops important skills not developed in the research lab, so they all accepted this requirement without objection.

Returning now to the undergraduate student aspiring to graduate school, there are many more criteria for selection than just grades. The grad school experience can be much more rewarding and beneficial if the student chooses a grad program that weighs many different factors in addition to academic grades. This is, after all, a portion of your life that can set the direction for your entire later professional career.