Progress on Improving Graduate Education at Yale

Graduate School of Arts and Sciences, Yale University

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We are delighted to share some good news about improvements in our doctoral programs over the past three years. This short report documents how most programs have found ways to provide their students with better academic support. We are grateful to the faculty and students who worked together on these improvements.

Background

Graduate education stands at the heart of Yale and other great research universities. Graduate students enrich the academic ferment of every department and contribute to undergraduate education as teaching fellows and role models. Our graduate students also perform a substantial fraction of the original research undertaken in every discipline at the University. Training scholars for academic careers and service in other sectors is one of our core missions.

After Yale College, the student body of the Graduate School of Arts and Sciences is the second largest in the University, with about 2600 doctoral students in more than sixty graduate programs and about 200 terminal master's students in twenty programs. The graduate faculty includes scholars in both the Faculty of Arts and Sciences and the professional schools.

During the 2010-11 academic year the Graduate School investigated academic support, mentoring and outcomes in our doctoral programs aiming to identify practices used at Yale that produce favorable outcomes for students. The 2011 report "Improving Graduate Education at Yale University" http://www.yale.edu/graduateschool/academics/improvingeducation.html confirmed that Yale doctoral programs used a range of effective strategies to help students navigate graduate school, but no program used every one of these practices. Programs with strong traditions of guiding and mentoring their students tended to have high completion rates, short time-to-degree and low rates of late attrition. These programs generally provided clear expectations, carefully monitored their students' progress, expected regular dissertation committee meetings resulting in written and oral feedback and offered early research experiences.

The 2011 report recommended that programs implement more uniformly the good practices already used at Yale. Graduate School academic deans met with the Chair and DGS of most doctoral programs to share comprehensive data on their students and outcomes and to discuss strategies to strengthen programs by adopting as many of the good practices as appropriate for their students. We asked each program to devote a faculty meeting to discuss the information gleaned about their students and to look for ways to strengthen their academic support for their students. We also met in open discussion with groups of graduate students.

A subsequent survey of doctoral students in late 2012 revealed additional opportunities to strengthen our graduate programs. The Graduate School shared the results of the survey with the programs. Nearly all programs met with their students to discuss sources of concern and to look for opportunities to work together to benefit students. That report can be found at http://www.yale.edu/graduateschool/academics/improvingeducation.html.

Improvements implemented by doctoral programs

Most programs found opportunities to improve their program structure and mentoring in various ways that were in keeping with their traditions. We used follow up surveys to measure progress in strengthening academic support for doctoral students. The graph shows that many departments improved the structure of their programs dramatically. Even those with preexisting strong practices adopted new ideas from other programs to serve their students even better. Anecdotal feedback from students indicated they were pleased with the changes.

Improvements in specific areas

This section provides information about changes in the eight areas recommended for strong program management and mentoring.

i. Program requirements: Most programs now post a current account of requirements on their website and many include written guidance about annual expectations for students with an estimate of the time necessary to complete a dissertation. A clear understanding of expectations helps students stay on the path toward timely completion of a dissertation.

ii. Early independent research: Many but not all programs require independent research experiences beginning no later than the summer after the first year of study. Some departments use "lab rotations" while others assign research papers through coursework. These early research experiences help students evaluate their own potential for advanced scholarly work. Students in some programs would benefit from additional research opportunities early in their studies.

iii. Annual review of students by the entire faculty: We recommend that the whole faculty of a program review the progress of students annually with a focus on students experiencing difficulties. This is an opportunity for faculty to pool information about individual students to
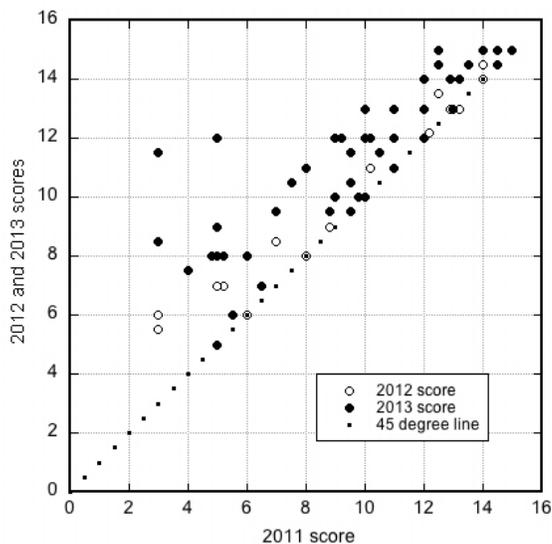
Comparison of academic support provided by programs in 2011 with 2012 (○) and 2013 (●) measured by responses to surveys about practices including posting clear requirements, early opportunities for research, regular reviews of students by the faculty, year of qualifying exam, thesis committee meetings with written feedback, frequency of meeting with the advisor one on one and in groups and opportunities for student presentations. The scoring took into account the different approaches in the disciplines. The footnote explains the scoring system. Points above the diagonal line indicate improvement.

Footnote: We used survey results from programs to measure academic support as follows: posting clear program requirements scored 1; providing early opportunities for research scored 1 or 2 depending on the scope of the research; tracking student progress at an annual faculty meeting scored 1 each for the time before and after the student advanced to candidacy; the qualifying exam scored 2 if held in year 2, or 1 if held in year 3; dissertation committees scored 2 if required annually and 1 if held less frequently; written feedback from the dissertation committee scored 1; meetings with faculty advisors scored 2 if held weekly, 1 if held monthly or biannually; research group meetings scored 2 if held weekly and 1 if held monthly; and student presentations of their work scored 1 if held annually. The maximum score was 15. The scoring took into account the different approaches in the disciplines. For example, participation in a working group in the humanities or social sciences was scored the same as a lab meeting in the natural sciences.

help advisors assist those who are struggling. Students should receive written assessments when appropriate. Another purpose of an annual review is to identify students who are best served by finishing with a terminal master's degree. A number of programs have long traditions of providing this review and feedback to their students, but others have not discovered the value of the practice or are still in the process of implementing these reviews.

iv. Qualifying exams and the onset of dissertation research: We recommend that students complete their qualifying exams as early as possible and no later than the middle of the third year. Two thirds of programs now complete qualifying exams during the second year, and virtually all other programs have adjusted their requirements to meet this goal by the end of the third year.

v. Thesis committees: The Graduate School believes that every student deserves a formal thesis committee meeting (or suitable alternative) at least annually after advancing to candidacy. These meetings allow students to take stock of their progress and to receive feedback from faculty members in addition to their primary advisor. About half of our doctoral programs now require an annual thesis committee meeting and student surveys confirm that these meetings take place. We are pleased to report that this was the area of greatest improvement over the past three years.

On the other hand, the frequency of thesis committee meetings still varies widely among our programs, with ranges within divisions almost as large as ranges between divisions. Furthermore, the doctoral survey http://www.yale.edu/graduateschool/academics/improvingeducation.html revealed that many students felt that the frequency of thesis committee meetings was insufficient or were unsure if they met frequently enough, so this is an area for additional improvement. Scheduling can be an issue, so we urge Directors of Graduate Studies to direct staff to arrange meetings and monitor their frequency. For students and faculty working off campus regular consultation with the thesis committee is even more important, so we recommend virtual meetings by conference call or Skype. Some of our most successful programs make an annual thesis committee meeting a condition for registration for the next year.

vi. Written feedback from thesis committees: Students benefit from written feedback from their thesis committees, in addition to the guidance that they receive from their advisors on their work. Some programs use checklists to simplify this process. Narrative reports are valuable and can be used as part of the annual Dissertation Progress Report submitted by the advisor. Some programs rely on the DPR to provide feedback, but the collective advice from a committee has added value.

vii. Regular formal and informal meetings with advisor individually or in groups: Faculty advisors understand the value of regular meetings with their graduate students. The survey of doctoral students http://www.yale.edu/graduateschool/academics/improvingeducation.html confirmed that many thesis advisors are devoted mentors, but also revealed that many students felt they needed more attention from their thesis advisors. Subsequent discussions between students and faculty within programs led to constructive suggestions for providing additional mentoring, but this was the area with the least improvement.

Faculty members in about one third of programs (mostly in the sciences) hold weekly group meetings with graduate students, postdocs and undergraduates. Some faculty in the humanities and social sciences have regular research group meetings and report that these meetings benefit all participants. However, this practice is not widespread so some students have only infrequent opportunities to receive the advice that emerges from sharing their work with a group of peers.

The Graduate School began an independent initiative to foster interactions among students in response to concerns from the Graduate Student Assembly that most humanities students lacked spaces on campus to congregate and work. Over the past three years we arranged for more than 2500 square feet of additional space in which humanities students can work with colleagues, meet students from their undergraduate classes and form communities of scholars. These new spaces represent only a small down payment on what needs to be done to provide adequate facilities for graduate students in the humanities and some social science programs.

viii. Regular opportunities for students to present their research work to colleagues: More than 70% of programs now require students in their research years to present a progress report on their work to colleagues in a formal setting at least once a year.

Conclusions

We thank the faculty and students for working together to strengthen their programs. The Graduate School will continue to encourage programs to use practices that benefit their students and to track progress with surveys of doctoral students. The long-range goals are to improve the quality of the experience of each doctoral student and to prepare students to reach their career goals while improving time-to-degree and overall completion rates. Based on the past experience of the Mellon Foundation project on Improving Graduate Education, the Graduate School will only know the ultimate results of these improvements over the next decade.