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Teaching Research Methodologies to Professionally Oriented Honors Students

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The benefits of encouraging undergraduate students to pursue independent research have been well documented (Craney; Guterman; Hathaway et al.; Ishiyama; Kremer and Bringle; Volkwein and Carbone). Introducing students to research processes and protocols is always a challenge, particularly for students enrolled in professionally oriented, discipline-specific colleges: so called “specialty schools.” In these colleges, preparing students to do high-level research is complicated by the nature and priorities of the students as well as by the particularities of the curriculum, which is invariably more restricted in scope than that of a conventional liberal arts college. Undergraduate specialty school students tend to be highly focused on preparing for their careers, and few plan to go on to research-oriented graduate programs. Nevertheless, specialty schools typically include many liberal arts requirements in their curricula in order to give students a well-rounded undergraduate education.

Interviews with honors directors at a number of specialty schools—Johnson and Wales University, Virginia Military Institute, Bryant University, College of Visual Arts, Bentley University, and CUNY Baruch College (please see Acknowledgments)—indicate that honors students in particular recognize the value of expanding their studies to include courses beyond those directly oriented toward their career. Honors students tend to be less single-sighted and more broadly engaged by ideas than might be expected of typical specialty school undergraduates. A review of the websites of over a hundred specialty school honors programs reveals that many such programs culminate in a capstone academic research project in which students are permitted and often encouraged to engage with topics outside their area of professional concentration. These specialty schools’ commitment to offering honors students the opportunity for deep immersion in topics beyond their primary focus speaks to an educational philosophy that prizes expansive intellectual curiosity alongside vocational training. Concomitant with this admirable commitment is the question of how best to groom students at specialty colleges for honors-worthy research.

At most undergraduate colleges, students write honors theses in the discipline in which they are majoring, having taken as many as twelve courses that

fulfill requirements for the major, one of which is most likely an introduction to methodologies of the field. At many undergraduate specialty schools, however, students can opt to write a thesis in any area that piques their interest. The challenges for the faculty working with specialty school honors students include preparing them for substantive scholarly work in a discipline in which they possibly have had little grounding, fostering a scholarly subculture in colleges that are oriented more toward pre-professional training than scholarly pursuits, and efficiently introducing basic research methodologies and scholarly protocols to students working in a wide range of disciplines outside their area of specialization. Based on the authors' own stewardship of the honors program at Babson College, as well as on interviews with honors program directors at a variety of specialty colleges, we can suggest some of the approaches and pitfalls of guiding students through honors research in areas outside of their immediate disciplinary focus. The design and mission of our own college's honors program as well programs at other specialty schools may provide a useful model of best practices.

Most enrollees select Babson for its success in preparing students for careers in such fields as finance, consulting, accounting, and marketing along with its emphasis on practical experience in founding and running a business. Nonetheless, Babson honors students can opt to write a thesis during their senior year in any area that interests them. In any given year, approximately half of the students working on theses choose to do so not in their area of professional concentration but in a liberal arts discipline. Similarly, in all but one of the institutions interviewed for this study, the honors program includes a capstone research project for which students may and often do choose topics far afield from their majors and concentrations.

Apart from two first-year rhetoric courses, Babson students have limited exposure to the scholarly research process. In the early years of Babson's honors program, we found that students were often floundering in the first few months of their two-semester thesis. They needed to get up to speed quickly on the pertinent scholarly literature, specialized language, and research approaches of their field of endeavor but were unsure how to do so. Students lost valuable time as well as confidence, and faculty advisors were dismayed to realize that they needed to give the students a crash course in basic discipline-appropriate research techniques and scholarly discourse before they could focus on the topic at hand. In response to this situation, the faculty on the Honors Council, which oversees all aspects of the program, began to think about how we could better prepare our students for the rigors of research given Babson's curricular strictures and particularities as well as the career orientation of most of our students. A conventional methodology course was not feasible since the curriculum could not sustain one more four-credit requirement, and in any case it would be impossible to offer multiple methodology courses for the various disciplines in which the students were working.

In our discussions with the honors directors at other specialty schools, they frequently cited this lack of grounding in research methodologies as a basic difficulty facing their students. Solutions to the problem tend to fall within two categories. In the first category, some schools have instituted required courses or sessions on research methodologies that expose students to a variety of disciplines in the hope that students will get at least some exposure to methodologies that might ultimately prove useful in their specific thesis area. In some schools, these courses occur in the semester just before students undertake their project while in others the seminar consists of a number of workshops spread throughout the span of the honors program. In some models, the seminar culminates in drafting a thesis research proposal; in others the proposal process proceeds independently of the seminar. The seminars at the colleges surveyed include (1) a required two-hour session at CUNY Baruch College, (2) a non-required session at Bryant University in which librarians and faculty members speak about research techniques and project scope, and (3) a one-credit methodology seminar at Johnson and Wales in which a professor introduces research skills.

The second basic model relies primarily on the individual, student-selected faculty advisor to instruct the student in research methods relevant to the project. In some institutions, the faculty advisor and student have the assistance of a dedicated honors librarian or other specialist, but in others faculty advisors are on their own, subject only to the necessity of having the project proposal approved by their colleagues on an honors council or other governing body. Bentley University, for example, has tried both approaches. Not long ago, Bentley honors students enrolled in a research seminar during the second semester of their junior year. However, the wide variety of proposed topics made it impossible for the seminar to be relevant to all the students. The level of frustration with the course led to its abandonment and replacement with a model in which individual faculty advisors have the responsibility to expose individual students to research methodologies in their field. Several of the honors program directors that we surveyed are dissatisfied with their current model and, as a result, are in a transitional phase, seeking a more purposeful and effective mode of thesis preparation.

The most rigorous and seemingly successful model that we found for preparing students to do honors research is at Virginia Military Institute where, according to program director Rob McDonald, "The conversation about undergraduate research is well-embedded across the curriculum." At VMI, honors students take a once-a-week, no-credit, pass/fail honors forum during each of their eight semesters. This seminar functions like a methodology course in which students are encouraged to think across disciplines and provide compelling interdisciplinary evidence for their claims. Such a continual emphasis on research techniques and rigorous argumentation equips students for the challenge of writing outside their area of concentration so that, for example, a mechanical engineering major at VMI was adequately prepared to write a first-rate thesis in

philosophy. Perhaps partly because of this ongoing grounding in research techniques and approaches, VMI has an exceedingly high (90%) retention rate in its honors program. However, few specialty colleges can incorporate such a model into their highly focused, packed curricula, leaving most with the challenge of efficiently preparing their honors students to approach a broad range of research topics within a very limited amount of curricular space.

Babson College has developed another possible approach to the dilemma that confronts honors programs at many specialty schools. Approximately forty first-year students are accepted each year into Babson's honors program. In addition to a threshold GPA, criteria for admittance include writing samples, faculty recommendations, an interview, and, most importantly, evidence of intellectual curiosity beyond the dutiful fulfillment of course requirements. By the start of their sophomore year, all Babson students have completed two first-year rhetoric courses that offer a basic introduction to scholarly resources and practices; these are the only courses at Babson, aside from those described below, that consistently incorporate a significant research component. Recognizing the need for more grounding in research, some years ago the Honors Council faculty instituted two required one-credit seminars designed to prepare honors students for their thesis-writing process. The first, taken by all honors students during the second semester of their sophomore year, introduces them to an array of disciplines, methodologies, and scholarly writings. The second, taken during either semester of the junior year, guides students through the research and writing of their thesis proposal. In the senior year, students complete a two-semester, eight-credit thesis, working one-on-one with a faculty advisor chosen by the student. These ten credits are the sole curricular requirements for honors students. Any student who opts not to continue the thesis process is dropped from the honors program. Approximately half of the students selected for the Babson program complete the senior thesis.

Prior to the present model, the Honors Council had tried several methods to encourage a research orientation as well as foster community among the honors students, a subsidiary goal shared by many undergraduate research programs (Balster et. al; Briggs). Along with attendance at a variety of cultural and social events, a former requirement was a one-semester, no-credit, sophomore seminar, the substance of which was chosen by whichever faculty member had volunteered to lead the seminar in any particular year. For example, in the presidential election year of 2000, the seminar professor invited a different colleague to each meeting of the class to discuss the implications of the election outcome for economic, social, and foreign policy. The students met on the night of the election to follow the returns, and subsequently all the guest experts returned to help students analyze the results.

To guide students in choosing an honors thesis topic, the Honors Council had instituted an annual, intensive, two-day retreat for sophomore honors students at a resort on Cape Cod, in which the council members and invited guest faculty described the process of executing a research project and ran a series of

activities designed to get students thinking about their own potential thesis topic. That retreat was augmented by a one-day session in the junior year aimed at helping students prepare their research proposal.

However, none of these efforts directly addressed the issue of familiarizing students with research methodologies to prepare them for whatever topic and scholarly discipline they might choose. Faculty advisors were increasingly frustrated and reluctant to take on projects with students who had little or no grounding in their chosen fields, so some on the council suggested that the sophomore seminar might be adapted to that end. The objections raised to this approach included the impossibility of designing a research seminar capacious enough to encompass all the disciplines in which students were working.

Thus, the council decided to attempt a hybrid of the traditional research seminar with the topical seminar it was currently offering. The new seminar would provide a series of discussions on current issues of broad interest and would be conducted by one of the council members, who would choose the topics and invite guest faculty colleagues to lead each week's discussion. The discussion would begin with the substance of that week's issue but would eventually turn to the academic disciplines relevant to that subject. The guest faculty member would engage the students in a discussion of how they might do research on this subject in the appropriate academic fields, describing the research methodologies involved.

In a sense, this new seminar would be a research seminar cleverly disguised as a current events seminar and therefore potentially more palatable to students in a professional school. If executed successfully, it would address almost all the goals of the honors program. In addition to fostering a sense of community and common purpose among the students, it would assist in their choice of a research project by familiarizing them with a variety of research methodologies as well as introducing them to faculty from diverse fields. Down the line, these faculty members might themselves serve as thesis advisors or at least refer students to other faculty who might agree to serve. This seminar would then be followed by a seminar in the junior year in which students would choose their topics and draft research proposals for the Council's approval.

The new model was originally rolled out as an every-other-week, no-credit seminar that met for the full sophomore year. Faculty and students generally felt that this schedule was too protracted, so in more recent iterations the seminar has been conducted biweekly over a single semester. In addition, the college-wide curriculum committee authorized the council to grant one academic credit for both the sophomore and junior seminars, allowing the introduction of homework assignments in which students practiced their skills by, for example, locating and summarizing scholarly research on the next class session's topic or discussing what research methodologies they would use to execute a specific topic they had proposed in class. Table 1 offers examples of topics used in a recent offering of the seminar, with the disciplines and some of the research methodologies discussed.

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Recently, the council has moved toward better integrating this research seminar with the Cape Cod retreat, the following year's junior seminar on writing a research proposal, and the college-wide event in which senior honors students present the fruits of their scholarly labors. Since the retreat occurs approximately halfway through the sophomore seminar, most of the assignments following the retreat are now based on the work done there. For example, students leave the retreat with a tentatively chosen research focus. In the following weeks of the seminar, they further specify the research methodologies they would use to execute their chosen topic. The last homework assignment in the research seminar, an abbreviated annotated bibliography, is directly connected with the initial activity in the junior year's proposal seminar so that students in that seminar get off to a faster and more effective start. Toward the end of the sophomore seminar, a few senior honors program students who are nearing the end of their two-semester thesis process come to the seminar to talk about their trajectory from Honors Seminar 1 to the completion of the thesis. The sophomores are then required to attend the senior honors project presentations at the end of the semester, in which all of the seniors present their research process and outcome. This final activity seems to be particularly effective in inspiring younger students and providing evidence that they are capable of producing first-rate, honors-worthy work in a broad range of fields.

Although the seminar changes slightly each year, its basic design has remained steady for several years. Like all courses at Babson, students evaluate the seminar through the college-wide system of student opinion surveys. However, until recently we had not conducted a systematic evaluation of whether the seminar has met its goals. The authors of this article undertook the

Table 1. Recent Seminar Topic Examples

Topic	Discipline	Research Methodologies
The Global Credit Crisis	Economics Finance	Archival research Statistical analysis
Climate Change	Environmental Science	Controlled and natural experiments Computer modeling
Radical Islam and the West	Political Science Anthropology	Ethnography Fieldwork Secondary Research
Marketing to Less Developed Countries	Marketing	Content analysis Surveys Focus groups

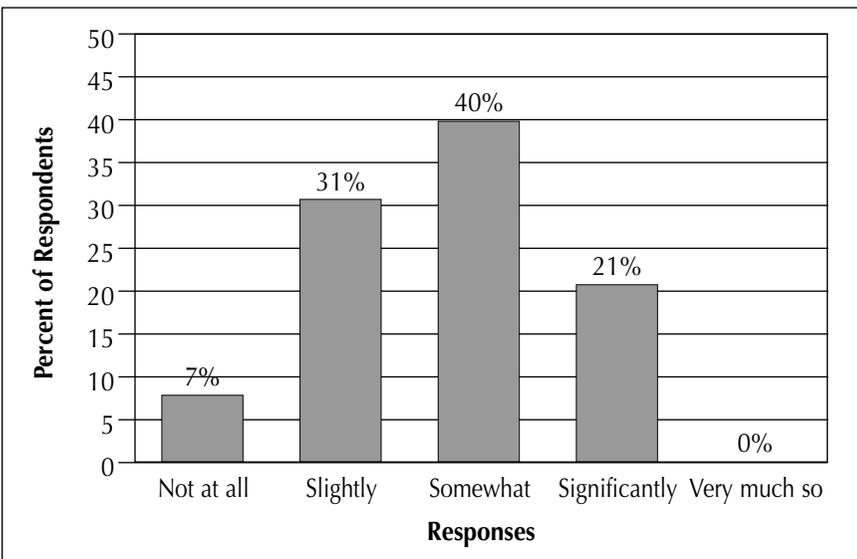
first such evaluation by surveying students who had completed the seminar and gone on to graduate.

During the summer of 2011, we sent a survey to all 223 students who had enrolled in the sophomore honors seminar in the years 2003 through 2009. These students had taken the seminar in its present form and had graduated from Babson, thus having had the opportunity to complete an honors thesis. Of these students, 69 completed the survey (a 31% return), and of those students 59 reported completing the seminar, 46 reported that they had attempted an honors thesis, and 32 reported finishing one. The survey posed a variety of questions to be rated on a 5-point scale while also affording students the opportunity to make open-ended comments on each one. An especially relevant question was “Did Honors Seminar 1 render you more knowledgeable about the research methods you might employ in your honors project?” Figure 1 offers a summary of the responses.

Although 61% of respondents felt somewhat or significantly more knowledgeable about research methodologies due to the seminar, the lack of any respondents checking the most favorable box, as well as the 38% checking the two lowest boxes, gives a mixed result. We also analyzed this data looking only at students who eventually completed an honors project, and the results were essentially unchanged: Not at all: 10%; Slightly: 32%; Somewhat: 35%; Significantly: 23%; Very much so: 0%.

The open-ended responses shed some light on the lack of enthusiasm of some of the respondents. Generally, those expressing a less positive opinion of

Figure 1. Summary of Survey Responses to the Question: “Did Honors Seminar 1 render you more knowledgeable about the research methods you might employ in your honors project?”



the seminar suggested that it came too early in the honors program, long before they had chosen an honors program topic or could judge the relevance of what they were learning to their own experience. "As a sophomore, my lack of knowledge about the subjects that interested me far outweighed my lack of knowledge of research methods." "I'm sure that there was an underlying influence of the knowledge, but I think that the research method formed naturally after finding a topic and during the project" "By the time I got to senior year, I think I forgot those methods. Maybe they would be better suited to right before the start of the honors project."

Others expressed a desire for the seminar to concentrate more on the research they would be doing for their individual honors projects. "I wish more time can be spent on reading and researching topics that we thought might be of interest." "We spent a good deal of time covering different research methods but did not drill deep enough into the methods that I chose to use in my project." "To be honest, it was mostly things I already know or it didn't really apply to me." This emphasis on direct value to themselves is surely characteristic of all undergraduates, but it highlights the challenge of designing a research seminar for professional school students: we want to encourage students to explore outside their major area, but we cannot design and offer a research seminar for each potential area of study.

We designed and administered another survey aimed at students enrolled in the spring 2010 seminar just after it ended. These students were completing their sophomore year, so they had not yet even drafted a project proposal. We sent the survey to all 29 class members, and 23 responded. All the questions called for open ended rather than numerical responses. One key question was "Has the seminar made you more knowledgeable about the research methods you might employ in your honors project?" On this question, all 23 respondents answered in the affirmative although 6 added some qualifications. The major suggestion was that the seminar should go somewhat more deeply into each of the methodologies, reflecting the challenge of trying to cover multiple disciplinary methodologies in a one-semester seminar. "[It] could benefit from more detailed explanation of exactly what each methodology entails." "It was good at showing the range, but did not go deep enough into the content."

It is striking that honors program graduates remember the seminar as being significantly less useful for introducing research methodologies than students who have just completed the seminar. The graduates, having had the experience of attempting a thesis project, no doubt remembered the seminar in light of difficulties they encountered writing the thesis. In addition, since the sophomores had just completed the most recent version of the seminar, the discrepancy between their assessment and that of the graduates may also reflect improvements made in the seminar over the years, including, for example, better integration into the seminar of the topic choices tentatively made at the retreat.

In measuring the efficacy of the seminar, the Honors Council has augmented the data derived from these assessments with anecdotal accounts from

the faculty member teaching the junior-year seminar as well as from faculty members who serve as thesis advisors to senior honors students. The junior seminar professor feels that, generally, students come to that class well-prepared to home in on a topic and a research discipline. They understand that each discipline has its own distinctive scholarly literature, methodological approaches, and discursive community. The sophomore seminar seems to do its job of giving students an initial acquaintance with the protocols of high-level scholarship. The individual faculty members who serve as advisors for honors theses offer mixed assessments of student preparedness. Often, seniors still need intensive guidance in the early stages of their thesis work since few have previously engaged in the rigors of original research. Although faculty receive a small honorarium for guiding students through their two-semester thesis, they generally devote far more time and energy to the advising process than they had expected, and—given a student populace not oriented toward research nor always well-schooled in their chosen subjects—they probably devote more time to advising than do faculty at liberal arts colleges who supervise only students majoring in their scholarly discipline.

Moving forward, the Babson Honors Council intends to continue with the general outline of Honors Seminar 1 while making minor adjustments based on feedback from the students and faculty. Babson is in the midst of a curriculum redesign that, while probably not yielding more flexibility to add courses or credits, may present some opportunities to recast the honors seminars or move them to a later point in the curriculum. In the meantime, given the vocational focus of the curriculum and student body, the current seminar offers one model for specialty colleges confronting the challenge of preparing their students for honors-level research. Many of the specialty school honors programs that we surveyed are in flux. We hope to have initiated a discussion of how such programs might proceed in colleges that, while focused more on pre-professional training than on scholarly inquiry, want to encourage intellectual breadth.

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