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Honors In Practice A PUBLICATION OF THE NATIONAL COLLEGIATE HONORS COUNCIL

Volume 16 | 2020



Honors in Practice

A PUBLICATION OF THE National Collegiate Honors Council

JOURNAL EDITOR Ada Long University of Alabama at Birmingham

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INDEXING STATEMENT

Abstracting and indexing services providing coverage of *HIP* are Academic OneFile; Cabell's Directory of Publishing Opportunities in Educational Curriculum & Methods and Educational Psychology & Administration; Current Abstracts; Education Abstracts; Education Index; Education Research Complete; Education Source; Educator's Reference Complete; ERIC; InfoTrac; and OmniFile Full Text Mega. Current and back issues of *HIP* are available in the University of Nebraska-Lincoln's Digital Commons repository: <<u>https://digitalcommons.unl.edu/natlcollhonors</u>> and for purchase on the NCHC website <<u>http://www.nchchonors.org</u>>.

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EDITORIAL POLICY

Honors in Practice (*HIP*) is a refereed journal of applied research publishing articles about innovative honors practices and integrative, interdisciplinary, and pedagogical issues of interest to honors educators. *HIP* employs a double-blind peer review process. Authors should include discussion of how central ideas and practices may be applied in campus settings other than their own, and the thesis should be located within a larger context such as theoretical perspectives, trends in higher education, or historical background. Essays should demonstrate awareness of previous discussions of the topic in honors publications and other relevant sources; bibliographies of *JNCHC*, *HIP*, and the NCHC Monograph Series are available on the NCHC website.

HIP also publishes "Brief Ideas about What Works in Honors," short descriptions of a successful course, project, idea, or assignment. Submissions should be 500–750 words long; they should have three keywords (not repeating words in your title); the abstract should be short (preferably one sentence); and references (if any) should be internal.

Submissions and inquiries should be directed to: Ada Long at <<u>adalong@uab.edu</u>>.

DEADLINE

HIP is published annually. The deadline for submissions is January 1.

SUBMISSION GUIDELINES

- 1. We accept material by email attachment in Word (not pdf). We do not accept material by fax or hard copy, nor do we receive documents with tracking.
- 2. If documentation is used, the documentation style can be whatever is appropriate to the author's primary discipline or approach (MLA, APA, etc.), employing internal citation to a list of references (bibliography).
- 3. All essay submissions to the journals must include an abstract of no more than 250 words and a list of no more than five keywords. For a submission to "Brief Ideas about What Works in Honors," the abstract should be short (preferably one sentence) and include a maximum of three keywords.
- 4. Only the "Brief Ideas" have minimum or maximum length requirements; otherwise, the length should be dictated by the topic and its most effective presentation.
- 5. Accepted essays are edited for grammatical and typographical errors and for infelicities of style or presentation. Authors have ample opportunity to review and approve edited manuscripts before publication.
- 6. All submissions and inquiries should be directed to Ada Long at <<u>adalong@uab.</u> <u>edu</u>> or, if necessary, 850.927.3776.

DEDICATION



Steven T. Engel

The traits that characterize an organization's ideal treasurer are largely the traits of an ideal person: reliability, stability, transparency, knowledge, unquestionable integrity, and accountability in all senses of the word. When a treasurer has all these characteristics combined with empathy, wisdom, and a good sense of humor, you have a rare treasure, and that is what the NCHC has had in Steven T. Engel for the past six years. These were critical years for the organization as it adopted a new dues structure that Steve ushered in with an ease and grace that calmed all the potential objections to this—or any change. At the same time, through careful administration of the organization's funds, he facilitated significant new ventures for the organization such as NCHC's student web journal, *UReCA*, for "the exchange of intellectual and creative work between undergraduate students."

Steve's service to NCHC has extended far beyond his role as treasurer. He has been a member of the Executive Committee and Conference Planning Committee, served on the *Honors in Practice* Editorial Board, given twelve conference presentations, and published articles in both *HIP* and *JNCHC*. His contributions to NCHC have been acknowledged in his selection as an NCHC Fellow in 2018.

DEDICATION

Beyond the NCHC, since 2005 Steve has been Director of the University Honors Program at Georgia Southern University, where he has focused especially on curriculum development, program expansion, diversity, experiential learning, and study abroad. He has served as conference co-chair and president of both the Georgia Collegiate Honors Council and the Southern Regional Honors Council.

In his academic life outside of honors (insofar as there is such a life), Steve has been a scholar of philosophy and political science, earning a BA at Michigan State University, two MAs at Miami University and Bowling Green State University, and a PhD from Loyola University Chicago. He has taught political science since 1993 at five different universities, culminating in his current position as Associate Professor of Political Science and International Studies at Georgia Southern University. He has published journal articles, book chapters, and book reviews on subjects ranging from Rousseau to human rights in Northern Ireland.

The NCHC has benefited from Steve's fiscal expertise, administrative finesse, and academic background, and we have all benefited as well from his delightful personality. As Jeff Portnoy has written, "Steve is a connoisseur of fine bourbons, and he is as smooth as they are." We are proud to dedicate this issue of *Honors in Practice* to Steven T. Engel.

EDITOR'S INTRODUCTION Ada Long

University of Alabama at Birmingham

In addition to a presidential address and nine research essays, this issue of *Honors in Practice* introduces a new feature: "Brief Ideas about What Works in Honors," limited to 500–750 words. Although we were expecting this new format to be an appealing option for honors faculty and administrators, we were nevertheless surprised and pleased by the large number of submissions, of which we are happy to publish fifteen. We hope and expect that the "Brief Ideas" will remain popular to both writers and readers.

While the "Brief Ideas" as well as the essays address a broad spectrum of topics within the field of honors education, particular interests within both the longer and shorter pieces in this issue are interdisciplinary STEM courses and first-year experiences (FYEs), interests that sometimes overlap. Readers can thus turn to the briefer articles for instant inspiration and then to the longer ones for background research, evidence, and discussion of what is working in honors.

At the outset, Richard Badenhausen of Westminster College describes and praises practices that redefine and defy the conventions of higher education in "Radical Honors: Pedagogical Troublemaking as a Model for Institutional Change." He cites, for example, discussion-based classes led by students rather than the single authoritative voice of the instructor. Other challenges that honors does and should present to traditional authority, Badenhausen comments, include interdisciplinary classes, experiential education, and the creation of an environment that fosters ambiguity and skepticism rather than right answers. He then suggests that honors needs to keep leading the way, as many programs are already doing, in creating broad access, empathy, and lives dedicated to service. Badenhausen will, we hope, be encouraged and gratified to find many of his ideals embodied in the essays, long or short, that follow.

The lead research essay in this issue is "Music in the Holocaust as an Honors Colloquium" by Galit Gertsenzon of Ball State University. Gertsenzon describes resistance of authority at its starkest and most dangerous. In her honors course titled "Forbidden Sounds, The Music of the Holocaust," students learn of these darkest times in history through the extraordinary musicians who created and performed musical compositions behind the backs and under the noses of the tyrants who ran the concentration camps,

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turning on its head the Nazi "use of music as a means for censorship and discrimination." The course culminated with a concert of music composed during the Holocaust that the Nazis banned, considering it degenerate; the music was performed by students in the course and also featured prose and poetry recitation. One could hardly imagine a topic or approach more suited to fulfilling Badenhausen's interdisciplinary, experiential, and transgressive ideals than this honors course.

Counteracting what is too often the singular focus on STEM disciplines in our legislatures, corporations, and media, Adam Watkins and Zahra Tehrani describe two interdisciplinary honors courses at Purdue University that approach STEM fields through creative writing. In "Brave New Worlds: Transcending the Humanities/STEM Divide through Creative Writing," Watkins and Tehrani write, "Honors education—given its commitment to interdisciplinarity and self-directed inquiry-provides an ideal context for leveraging creative writing as a platform for transformational learning that reunites the arts and sciences." Watkins, in his course Human Redesign, included two creative writing assignments: a "1,500-word scary story along with a 300-word critical reflection" in the mode of Shelley's Frankenstein, and "a quack theory" based in a nineteenth-century scientific concept. Tehrani, in her course called "Immortality," drew on Lightman's Einstein's Dreams in assigning "a thought experiment in the format of a 1000-word short story in which [students] explored one idea from class about digital immortality along with a 500-word critical reflection." She commented that she was surprised "how drastically student perceptions of the technology changed after writing their stories," going from unexamined positive expectations to some serious skepticism. In both courses, "students could fulfill Da Vinci's edict to see the art in science and the science in art, all in an effort to examine the world and the complex interconnection of things within it."

Another interdisciplinary course that combines the arts and humanities with STEM is the subject of "Humanities-Driven STEM—Using History as a Foundation for STEM Education in Honors" by John Carrell, Hannah Keaty, and Aliza Wong. What makes this course special, according to the authors, is that rather than using the arts and humanities to bolster a science course, it makes them "the foundation and impetus for STEM learning." Their first-year, team-taught course in the Texas Tech University Honors College establishes a symbiotic relationship between history and engineering instead of privileging one over the other. The course titled "War, Machine, Culture, and Society: History and Engineering in the Second World War," according to the authors,

"speaks directly to the honors college's dedication to a modern liberal arts approach that brings together the classic trivium and quadrivium even as it expands to include the hard sciences and new fields in technology, business, engineering, health, culture, and politics." The authors describe the course structure, topic selection, assignments, and assessment strategies, offering practical advice for honors faculty who choose to collaborate in combining STEM with the arts and humanities.

The next essay presents a different kind of interdisciplinary team approach to the first-year experience. "Best Practices in Honors Pedagogy: Teaching Innovation and Community Engagement through Design Thinking" is a collaborative effort not just in the classroom but in writing this essay by Beth H. Chaney, Tim W. Christensen, Alleah Crawford, Katherine Ford, W. Wayne Godwin, Gerald Weckesser, Todd Fraley, and Phoenix Little. The authors describe a collaborative set of courses they taught at East Carolina University: "Using human centered-design (IDEO.org, 2015), an interdisciplinary team of faculty developed a year-long freshman experience focused on community engagement and social change." In five sections of the freshman course, teams of students produced thirty-five projects in which they used multiple data collection techniques to understand community needs, and they addressed these needs based on "immersion experiences, key informant interviews, and research on secondary data in the peer-reviewed literature." Readers may find the immersion experiences especially interesting; for example, one of them involved attendance at an AA meeting by a team studying alcoholism among young people. The authors describe the multiple components and pedagogical strategies used in the course that led the students to improve their "non-academic skills of grit, resiliency, [and] creative self-confidence."

A different kind of first-year experience is the subject of Elizabeth Bleicher's essay, "Teaching Critical University Studies: A First-Year Seminar to Cultivate Intentional Learners." She reports on a study at Ithaca College of eighteen sections of a first-semester seminar over a period of twelve years. Titled "Why Are We Here? Student Culture and the Problem of College," the seminar "combines content and methods from the discipline of Critical University Studies; layered high-impact practices; student-curated and student-led discussions; and explicit instruction on metacognition in teaching and learning to cultivate self-determination and academic purpose." The goal is to make students critics of their own education, including the pedagogical theories and assumptions of the course itself, and to make them aware of educational practices in higher education generally, questioning the purpose

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and effects of topics ranging from tenure to graduation requirements, from prestige ranking to funding sources, and how these factors affect their own educational experience. At the end of the course, the students deconstruct its syllabus and redesign it for the following year. Bleicher offers Why Are We Here? as a model of "guided reflection on the intellectual journey from orientation to commencement that enables students to understand what they know, how they learned it, who they were, and who they have become..."

A more practical, less theoretical approach to a first-year experience appears in Teddi S. Deka's "A Potential for Improving Honors Retention with Degree Planning," which focuses on increasing and assessing retention. Deka describes a workshop that was offered at Missouri Western State University in 2015 and 2018 as part of the first-semester honors freshman seminars. Using a "guided pathways" approach, the workshop was designed to encourage a "planning and sequencing" process so that that students would "take classes when they should and complete the coursework needed for their degrees." During the workshop, which consisted of two fifteen-minute segments and one hour-long session in each section of the seminar, students mapped out the courses they would take in their major and minor as well as in the honors program during their first two years as an undergraduate, taking into account whether they started out with college credits earned in high school. The results showed that while students who took the workshop were more likely than other students to voluntarily drop out of the honors program and the university, they were less likely to be removed from the program because of a low GPA or lack of progress. These results suggest that students learn from the workshop whether they wish to stay in the program or university, and if they stay, they are more likely to succeed.

Elizabeth Bleicher's idea of including students as active evaluators of their own education also informs the essay "A Meaningful and Useful Twofer: Enhancing Honors Students' Research Experiences While Gathering Assessment Data" by Mary Scheuer Senter of Central Michigan University. Senter accomplishes a "twofer" in teaching an honors course "that provides meaningful enhancement of students' research skills and that creates data for justifying and improving the honors program." This course, called "Program Evaluation Experiences," teaches students how to do the kind of assessment now required of virtually all honors programs and to practice this assessment on their own honors program. All the activities typically carried out by honors administrators become the course activities: using quantitative and qualitative measurements that include personal interviews, focus groups, online surveys, and data analysis using *SPSS* and *NVivo*. Working in teams, students learn the basic research techniques required for assessment and see tangible results that affect their experience in honors. Obvious beneficiaries of this course are not just the students and the honors program but the faculty and administrators who are partially spared the chores of data collection and analysis.

The following essay might make good reading for the students doing assessment of the Central Michigan University Honors Program. In "Statistics: A Cautionary Tale," Len Zane of the University of Las Vegas, Nevada, brings home to honors the saying "lies, damn lies, and statistics." Not only assessment but also key matters such as admissions and scholarship awards in honors rely on statistics and have significant impacts on students and faculty. Zane "urges readers to recognize objective data as subjective information," and he proceeds to describe in detail how statistics and data analyses are calculated and how they can mislead. Especially for readers who are unfamiliar with the basis and methods of statistical analysis, Zane's clear explanations are not only interesting and valuable but important in understanding the rocky foundations of common but often unexamined practices that have profound effects on honors education.

The final research essay takes up the controversial topic of honors contracts. In "Contracts for Honors Credit: Balancing Access, Equity, and Opportunities for Authentic Learning," Patrick Bahls examines the value of honors contracts at the University of North Carolina, Asheville (UNCA). He focuses on "students' metacognitive reflections on the work they did in fulfilling their contracts" to illustrate the benefits of a contract option in honors. After a brief summary of past arguments for and against contracts in honors, he describes the design, use, and success of contracts in the UNCA Honors Program, with reference to a small sample (eight students) and a short time period (one year). Bahls lists and describes the positive effects that contracts have had on the program-including improved recruitment, accessibility, and diversity-before homing in on the students' end-of-semester reflections, which consistently pointed to the following benefits they gained: appreciation of interdisciplinarity; multiple perspectives and epistemologies; connections with alumni and community leaders; introduction to the complexities of research; and intellectual humility.

Among the "Brief Ideas about What Works in Honors," two accounts echo the research interest in **interdisciplinary STEM courses**: "Breaking the Rules: Bringing Calculus into the Humanities Classroom" by Brent M.

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Blackwell of Ball State University and "Engaging and Contributing Professionally in a Global Sustainability Honors Course" by Jeffrey Lamp and John Korstad of Oral Roberts University.

Three of the brief ideas echo another of the prominent interests—the **first-year experience** (FYE)—among the earlier research essays: "The Commonplace Book Project" by Kate Krueger of the University of Illinois at Urbana-Champaign; "A Dialogical Exercise for Honors Students" by J. Robert Baker of Fairmont State University; and Cathlena Martin's "Office Hours: An Honors First-Year Experience Assignment" (University of Montevallo).

The following three essays present innovative **teaching ideas and strategies**: "Intellectual Risk" by Ashleen Williams of the University of Mississippi; "Using the Online Forum for Honors Learning" by John Zubizarreta of Columbia College; and "National Security Council Role-Playing Simulation" by Steve Elliott-Gower of Georgia College.

Four essays address **co-curricular activities involving undergraduate research**, often in the form of a lecture series or forum for research presentations: Anne Dotter's "Undergraduate Research Seminars at Your Humanities Center" (Jackson County Community College); "What Works in Honors: Discovering 'London as a Detective Story'" by Kelsey L. Bennett and Nicole Becwar of Western Colorado University; "Mental Health Matters: College Student Mental Health in the Twenty-First Century" by Gary H. Bischof, Alexander J. Hamilton, and Adrian J. Hernandez of Western Michigan University; and Jason T. Hilton's "Emphasizing Co-Curricular Experiences to Address Increasing Honors Enrollment and Diminishing Resources" (Slippery Rock University).

The final three essays are each in a category of their own. Focusing on **service** is "The Campus Improvement Project: A High-Impact Practice to Stimulate Honors Community and Empower Student Leadership on Campus" by Steve Garrison and Cody Parish of Midwestern State University. A **disciplinary** course in accounting at LaGuardia Community College (CUNY) is the subject of L. Benjamin Boyar's "Beyond Bookkeeping: Developing Intellectual Skills in Honors Accounting Courses." Andrew Martino of Salisbury University has the last word in "On Being an Honors Dean" about honors **administration**.

Honors in Practice

2019 PRESIDENTIAL ADDRESS

Radical Honors: Pedagogical Troublemaking as a Model for Institutional Change

Richard Badenhausen

Westminster College

Abstract: This presidential speech to attendees of the 2019 NCHC annual conference in New Orleans resituates honors education as a site of deeply radical practices and provides a call to action to honors educators both to own the transgressiveness of our pedagogical approaches and to extend that troublemaking project to processes beyond the classroom, processes like honors recruitment and admissions, faculty appointments, co-curricular programming, and assessment, among others. Given the academy's traditional resistance to change, an opportunity exists for those in the honors community to step forward and radically alter the structures and practices of higher education, all in the service of students and their learning.

Keywords: academic innovation; diversity; anti-elitism; right to education; student success

(What follows is the 2019 presidential address delivered at the annual NCHC conference on November 9 in New Orleans, Louisiana.)

A recent alumnus of our honors college headed off to graduate school last year, where he taught the requisite writing classes as part of his fellowship package. Not knowing any better, he adopted many of the pedagogical strategies he had learned in honors, the most important of which was running class as a conversation that put student voices at the center of the learning experience. His fellow grad students were flummoxed: "What in the world are you doing?" they asked incredulously. No doubt nervous that this seemingly radical approach represented a stark departure from the more familiar method

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modeled by their graduate faculty—holding forth at the head of the seminar table while periodically asking acolytes to chime in and affirm—these grad students were calling out a threat to that system. The undergraduates, on the other hand, loved this approach, praised the instructor, and even asked on one student evaluation if the class period might not be extended due to the rich conversations.

What are we to make of this little account? First, it signals just how hungry our students are for deep conversation about difficult topics, especially these days, having been raised against the backdrop of seemingly intractable global problems and surrounded by the noise of public figures shouting at each other rather than collaborating on solutions. And while there are few practices more tiresome than adults fretting about the habits of young people-that tradition goes at least as far back as Plato's Republic—it is incontrovertible that our students' total immersion in the digital world has exacerbated their feelings of isolation, powerlessness, and anxiety. For example, psychologist Jean M. Twenge notes that high school seniors devote an average of six hours a day to new media—texting, surfing the internet, gaming, and video-chatting (51). In effect, virtually all their leisure time is spent enveloped in this electronic cloud, a circumstance that causes one of the subjects of Twenge's 2017 study to declare of her generation: "I think we like our phones more than we like actual people" (2). MIT social scientist Sherry Turkle has called out the many dangers of this "flight from conversation," the most significant of which is that we are raising a generation that has not had the opportunity to "develop the capacity for empathy" (4, 3). Given such contexts, opportunities for engaged discussion in class have never been more important.

Second, this account reminds us that the academy—one of the most fossilized and conservative institutions in the world—is very slow to welcome change, let alone drive it. My student's story, in fact, essentially approximates bell hooks's memory of her own graduate school education forty years ago, which she understood as providing a forum for professors "to enact rituals of control that were about domination and the unjust exercise of power" (5). Those teachers, she continues, "seemed enthralled by the exercise of power and authority within their mini-kingdoms, the classroom" (17). For hooks, the answer lay in liberatory learning that generated "pleasure in the classroom," "movement beyond accepted boundaries," and flexible class agendas that allowed for "spontaneous shifts in direction" (7). Ultimately, this "radical pedagogy" (8)—hooks's phrase—was centered on "hearing one another's voices … recognizing one another's presence" (8) through dialogic exchange. hooks's approach was deliberately radical, a direction announced in the title of her book *Teaching to Transgress*. The question I want to pose is why we in the honors community so infrequently call out the transgressiveness of our project. Why do we not foreground honors as a site of deeply radical practices? And what would it look like if we intentionally owned our position as academic and pedagogical troublemakers and even extended that radical viewpoint to our practices beyond the classroom?

We are, after all, up to something in honors. We don't fit; we disrupt; we make those around us uneasy, all in the service of student learning. For example, in addition to centering the classroom on student voices, honors faculty typically insist on transgressing disciplinary boundaries in an educational system that has been built around subject fields for centuries. Honors offers an alternative path to—or at least casts a skeptical eye on—the blessed disciplines and the lenses through which they see and understand the world. These disciplinary frameworks, of course, are artificial constructs shaped by culture, bias, and error. While such structures are comforting, they encourage a kind of single-axis thinking that interdisciplinarity disrupts. As one recent essay on intersectionality reminds us, interdisciplinarity has been often so important to "critical feminist and antiracist inquiry ... [because it] encourages researchers to unsettle their ossified patterns of knowledge production by seeing their object(s) of inquiry from another standpoint(s)" (Moradi and Grzanka 503). Put another way, the myopia of privilege can often be corrected—or at least highlighted—through criticality and conversation across difference.

Our longstanding embrace of experiential learning, which has been a hallmark of honors for over a half century in programs like City as Text^{**} and more recently Partners in the Parks, is informed by the insistence that the boundaries of the classroom need to be torn down and knowledge production must be rescued from its current limiting processes. Walker Percy's remarkable essay "The Loss of the Creature" takes up two primary challenges to genuine and unencumbered knowledge production, what he calls seeing "the thing as it is" (47): first, most objects have "been appropriated by the symbolic complex" that has already shaped how the knowledge seeker will receive the object (47); and second, we have ceded the ground of knowledge making to "those experts within whose competencies a particular segment of the horizon is *thought* to lie" (55, my emphasis). The solution, according to Percy, rests in the power of experiential learning even, though he does not use that phrase. Percy advocates

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(1) an openness of the thing before one—instead of being an exercise to be learned according to an approved mode, it is a garden of delights which beckons to one; (2) a sovereignty of the knower—instead of being a consumer of a prepared experience, I am a sovereign wayfarer, a wanderer in the neighborhood of being who stumbles into the garden. (60)

The beauty of Percy's approach is that the foundation for learning is grounded in a receptivity to bewilderment, not a place of comfort for most conventional knowledge-seekers.

The prevalence in honors of team teaching to drive dialogue across disciplines represents another kind of troublemaking that sits uneasily in the modern academy, where worship of the efficiency mantra above all else sometimes elides what is best for students. In addition to being an incredibly powerful professional development experience for faculty and thus a boon to the overall institution, team teaching helps students live in the gray area between disciplines where answers are less certain; models for students what such constructively frictional dialogue looks like; and resituates faculty beside students as fellow learners in the classroom even though the power differential between those two groups will never disappear fully. In a characterization reminiscent of Percy's call to action, Kathryn M. Plank notes that team teaching "moves beyond the familiar and predictable and creates an environment of uncertainty, dialogue, and discovery. And that is what learning is all about" (3).

It has always alternately frustrated and amused me that honors is sometimes seen as a bastion of elitism since so much of what we do is deeply anti-elitist, overtly transgressive, and often progressive, even though there's certainly much more we can do to help alter that perception. You might recall the name Ronald Nelson, the student highlighted in one of Frank Bruni's 2015 *New York Times* articles. Admitted to all eight Ivy League institutions, Nelson chose instead to attend the University of Alabama's honors college, citing both the generous scholarship support and the more diverse environment. As Bruni noted, honors can "give students some of the virtues and perks of private schools without some of the drawbacks, such as exorbitant tuition and an enclave of extreme privilege." While I was pleased to read this piece in 2015, I was also struck by the vitriolic remarks in the online comments section to the article, with many readers calling out the student as a fool for passing up this supposed golden ticket to success, though recent work by a number of economists has called into question the wage premium of attendance at elite universities (Ge, Isaac, and Miller). A later *Times* article from 2018 highlighting the most popular class at Yale that year as a course on happiness suggested that Mr. Nelson might have been wise beyond his years (Shimer). The instructor of the happiness class attributed its wild popularity to the fact that many students had made themselves miserable trying to gain admittance to Yale and ultimately had no practice at being happy, so they were in search of a blueprint for that project. The course enrollment, by the way, was 1200 students, which seems less like a class and more like a good-sized riot.

Back to the question of elitism. While access has always been front and center of the mission of two-year institutions, honors programs at four-year colleges have sometimes not been as successful addressing some of the structural inequities in higher education, and so we would do well to follow the lead of our colleagues in those schools in thinking creatively about how honors can advance the causes of access and equity. For example, some recent data show that students of color are approximately half as likely to be in honors as they are in the larger student population, at least within a select group of research universities explored in a recent *JNCHC* essay (Cognard-Black and Spisak 139). In other words, honors can sometimes look like the face of privilege although it doesn't have to be so.

I would suggest that the next frontier in our collective trouble-making project should involve getting at some of the structural barriers to fuller participation in honors by students who have been historically underrepresented in higher education. How might we bring that same energy that drives our transgressive learning strategies to our work on institutional practices so that honors communities better reflect the broader student population? It seems to me that we can continue to push the access envelope by examining our admissions procedures so that they are as inclusive as possible: using holistic review of applications instead of focusing on standardized test scores that most positively correlate with family income; developing essay questions that are inclusive, e.g., focusing on thought experiments that all applicants can address rather than those favoring privileged applicants; not privileging volunteer experiences to which not all students have access because they might have other work or family responsibilities; and making sure that we don't use additional honors participation fees that will discourage or disqualify students with low-SES backgrounds from joining our community. Progress is possible: for example, our last four entering honors classes at Westminster College have a higher percentage of students with need than in the overall

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entering first-year class. Then, once students are part of our programs, we need to acknowledge that not all students arrive on campus with the same set of tools in their toolbox. Just because a new student does not possess the cultural capital that passes for currency on today's college campus and needs time to adjust to university life does not mean she should be penalized by overly restrictive or punitive academic probation standards. It makes perfect sense that those who join us from communities that are different from those typically found on a college campus might need more time and support during this transition.

Another area where honors can lead is addressing mental health challenges of students by acknowledging the support they need, destigmatizing conversations about mental wellness, and using the classroom as a space where the curricular and co-curricular can come together to address our students' struggles. Honors has often been a locus of collaboration between faculty and staff in ways that are less common in disciplinary programs; we should take advantage of that history of cooperation to draw on the expertise of staff partners who work in student life and wellness areas as is happening at Georgetown University in a creative initiative called the Engelhard project, which foregrounds discussion of and reflection on mental health issues in the classroom. I am pleased to see at least fifteen sessions on mental health at this year's NCHC conference, and an NCHC monograph on the topic is in the works. When we were last in New Orleans for our meeting in 2013, only two sessions addressed this topic.

One pointed way we can take on our students' anxiety directly is interrogating how we talk about what achievement looks like. While I have written about expanding the diversity of the "success scripts" we use during the recruiting process as a way of increasing access to our programs (Badenhausen), former Berkeley professor Marilyn McEntyre has spoken eloquently about ten different ways we can help students reimagine success, ways that move beyond simple instrumentalist goals or terms tied to pleasing those in positions of authority, a particularly insidious virus that infects the lives of many of our students. McEntyre argues for strategies like reorienting students away from a narrative focused on winning things and celebrating those students who practice "downward mobility," or lives devoted to the service of others. The ultimate goal is to "help cultivate an academic culture and conversation that is more sustaining, life-giving, and conducive to lasting well-being" (2).

Honors can reinvigorate the fusty academy in a variety of other ways. We are well-situated in honors to partner with other campus programs on shared faculty lines that stretch precious university budgets further. We have the environment, capacity, and pedagogical courage to experiment with alternative modes of assessment, like students' self-grading of their work, whose roots have been traced to feminist pedagogy by Portland State professor Vicki Reitenauer. We have seen thrilling experiments in Living Learning Communities that link universities directly to the neighborhoods they occupy, as in the honors LLC at Rutgers University-Newark led by its visionary dean, Tim Eatman. We are especially well-positioned to take up AAC&U's call for inclusive excellence and, in a related project, live up to NCHC Vice-President Suketu Bhavsar's call for us to situate our teaching on a foundation of compassion and empathy; as he writes in the 2020 Dallas conference Call for Papers, "nothing could be more *disruptive* or *transgressive* to our business as usual in the academy than deliberately, consciously, carefully, smartly, and habitually cultivating our hearts with intent, purpose, and humility."

Now is not the time for us in the honors community to be meek: colleges are closing; state support of higher education has fallen \$9 billion in the decade following the Great Recession (Mitchell, Leachman, and Materson); and we have national, state, and local politicians openly hostile to the value of college. In spite of the pressures around us, the work we do still matters enormously; we are altering the very trajectory of our students' lives. Honors itself has also matured as a field, and we have our own practices, traditions, and even foibles. In fact, if we tie our origins to Swarthmore College in 1922, we are on the verge of our hundred-year anniversary in honors. Let's celebrate that milestone by pledging to continue our thrilling, troublemaking project.

ACKNOWLEDGMENT

I am grateful to the following colleagues who read early drafts of this essay and dispensed excellent advice: Alicia Cunningham-Bryant, Stephanie Santarosa, and Julie Stewart.

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The author may be contacted at

rbadenhausen@westminstercollege.edu.

Honors in Practice

ESSAYS

Music in the Holocaust as an Honors Colloquium

GALIT GERTSENZON

Ball State University

Abstract: Forbidden Sounds: The Music of the Holocaust considers the historical events of the Holocaust in the context of music. The honors course explores diverse roles that music played during the years 1933–1945, including the Nazi use of music as a means for censorship and discrimination; music performance and creation in various Jewish ghettos and concentration camps in Europe; and ways that composers, performers, and audiences used music for emotional and physical survival and for spiritual resistance during World War II and after. The author provides a rich and varied curriculum, culminating with student performances and a series of public concerts, lectures, field trips, and independent studies. Challenges and strategies for teaching music to non-majors are discussed.

Keywords: Holocaust (1939–1945)—songs & music; Terezín (Czech Republic: Concentration camp)—composers; Jewish ghettos; testimony (theory of knowledge); music education

INTRODUCTION

Teaching the historical events of the Holocaust is especially important during current times. Antisemitic hate crimes as well as Holocaust denial have been on the rise in the past few years. Recent surveys have shown an alarming lack of knowledge about the Holocaust (Claims Conference, 2018), suggesting a lack of understanding that what begins as delegitimizing and dehumanizing can lead to the atrocities of genocide on a most horrific scale.

The musical perspective is an important approach among the many ways to teach about the Holocaust,. The music that survived from the Holocaust is a testimony to the experiences and legacies of those whose lives were tragically cut short. If I approached my students with a series of dry facts, a sole testimony, or a lecture or discussion that simply described events in the

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Holocaust, they would understand it on a factual level, but instead I approach them through guided listening to music and asking them to reflect on what they hear. I share with them information about the context of a musical piece and the composer who created it in a concentration camp. We explore how the music responds in sound and text to the struggle the composer encountered while imprisoned. As a result, students can listen to the music as if it were a story told in sound, and they hear emotion, message, and communication that has a background tied to it. I then provide more detail about the place and time of composition and how such a place as a concentration camp came to function. I teach students about the Holocaust through having them listen to artistic expression and providing them an opportunity to interpret what they hear using their own sets of experiences and emotions while sharing with them the context and background of the music.

Even though I believe that teaching the Holocaust through music can be a powerful approach, it presents potential challenges. Current undergraduate students are several generations away from the atrocities of the Holocaust. Additionally, many students have little to no musical background and may find the type of music being covered distant from the music they listen to regularly, especially if they have little background in classical European music. Despite these challenges, teaching a course on the music of the Holocaust in a small honors class provides possibilities that would not work in a larger setting.

Other honors faculty, such as Mara Parker, have successfully taught nonmusic majors within an honors program by using the benefits of small classes and discussion-based learning (Parker, 2008). I applied a similar approach in exploring the music of the Holocaust as a means to understand its historical context. Using the discussion-based and interactive classroom approach, I added a unique immersive component in the form of a concert performed by the students who could play or sing, accompanied by me, thus strengthening the lessons taught in the classroom.

Another source from which I derived guidance in teaching music to non-majors was Amy Beal's description of teaching a course on politics and protest in American musical history (Beal, 2008). Beal's approach was to provide students with an historical overview through the music they explored in the course. Additionally, Beal made diverse choices of musical styles from classical to jazz, rock, and pop. I also chose diverse musical styles, including jazz, twentieth-century avant-garde music, solo piano performances, string ensembles, symphonic works, opera, street songs, and some popular American music.

COURSE DESIGN AND PROGRESSION

During the past several decades, the growing wealth of scholarly work and online resources on the music of the Holocaust enables those interested in further exploring the subject to pursue that path. Nevertheless, the subject of music in the Holocaust is still relatively new, and structuring a class on the topic is challenging. I framed the course with introductory sessions exploring the topic of music in the Holocaust followed by theme-based sessions that explored the various music-making activities in camps as a means of censorship, resistance, identity, and survival. Toward the end of the course, we discussed music that was composed after 1945 in response to the Holocaust.

I began the class with introductory material about the subject of Holocaust music in general, which turned out to be necessary based on students' lack of knowledge about many of the topics being covered. During class discussion at the beginning of the course, I asked students to describe to the best of their knowledge what they imagined could possibly be the music of the Holocaust. Very few students responded to this question. For example, in the course I taught in 2018, only three students addressed the subject with limited knowledge. A biology major recalled previously playing music excerpts by John Williams from the movie Schindler's List and expressed doubt if this was music of the Holocaust. An English education major alluded to some partial knowledge she acquired from a history course on women in World War II, recalling the French pianist, cabaret singer, and composer Fania Fénelon, whose autobiography Playing for Time described her experience as part of the women's orchestra in Auschwitz. A psychology major mentioned visiting Buchenwald during high school and recalled the song lyrics written by inmates in the camp that became a symbol of resistance to the harsh circumstances and Nazi occupation. These responses demonstrated only slight knowledge of the subject matter.

Based on the limited information students had on the subject, the first week centered on a general overview of music in the Holocaust, beginning with a review of the role music played in the Holocaust as described in an article on music in concentration camps (Fackler, 2007). In the reflection assignment that followed, students were asked to describe what role music played in their lives and how learning about these various roles of music in the camps might or might not change their views on music and its powerful effects. Students expressed their surprise and shock on learning about all the various forms of music that took place in concentration camps. Learning that an orchestra played while people were walking to gas chambers or on the

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way to or back from a day of labor was quite disturbing to the students. Some mentioned that they had always seen music as having a soothing and reassuring purpose and never realized that music could contribute to the torture, manipulation, and discrimination against others.

These sessions laid the groundwork to explore how Nazis used music as a political tool and as a legislative weapon to control and discriminate against minorities. First, students explored images of artwork in the 1937 Degenerate Art Exhibit in Munich, which featured hundreds of confiscated artworks that were subjected to mocking and discrimination for their avant-garde, experimental, and untraditional styles. We discussed how Nazis banned modern musicians as well as artists through a chain of newly organized offices that controlled them and labeled their music as "Degenerate." Within this context, I played an unfamiliar composition that featured various musical styles and asked the students to identify any characteristics that, according to the Nazi ideals at the time, might be considered "Degenerate." They detected the jazz style with its unusual instrumentation, somewhat like the style of American music of that time in its rhythms and instruments. They learned that what they were listening to was in fact a popular jazz opera, composed by German composer Ernst Krenek in 1926, titled Jonny Spielt Auf about a Black Jazz musician. The opera rose to great popularity and was later banned by the Nazis. They were surprised to find out that "Degenerate Music," according to the Nazis, also included Black musicians, jazz music, and American musical symbols. We took a quick turn to listen to some excerpts from the music of Arnold Schoenberg, a leading avant-garde composer of Austrian Jewish heritage. Students were asked to describe what they heard in excerpts of the melodrama Pierrot Lunaire (Moonstruck Clown), a composition for a reciter (usually a soprano), flute, clarinet, violin, cello, and piano. Here, students detected different styles of music such as dissonant harmonies that sounded like speaking (Sprechstimme) and unusual instrumentation—or, as the students expressed it, "music and text that make you think." By listening to the diverse styles of Schoenberg and Krenek, students learned to appreciate how diverse was the concept of "Degenerate Art and Music," spanning various styles and nationalities. We then compared the styles and atmosphere of the compositions described above to the music of the Nazi ideals Beethoven and Wagner, which included listening to excerpts from Wagner's opera Die *Valkyrie* and Beethoven's Fifth and Ninth symphonies.

Following this introductory segment, which established some general knowledge about music in the Holocaust and the way Nazis used it as a tool

for discrimination and propaganda, the course shifted during the third week to discussion of specific camps where music was a central component. We began exploring the music of individual composers and performers and their musical legacy. One of various goals of the discussions was to interpret what some of the music signified in the context of its evolution and to explore the meanings of composers' choices of specific texts and musical instrumentation.

Gideon Klein was the first composer we explored in this part of the course. The students were assigned to read an online biography of Klein (Beckerman, undated) and an article about musical scores as historical documents that focused on one of Klein's musical compositions (Beckerman, 2010), and they then wrote a summary of the assigned readings to prepare for class discussion. Gideon Klein (1919–1945) was a young composer whose work in Terezín while imprisoned serves as an artistic testimony to the atrocities he faced. He was one of the most active individuals in Terezín, encouraging others to create music and art. When I introduced Klein's profile picture to the students, some commented on his good looks and young age. Indeed, Klein's age at the time of his imprisonment was close to the age of most students. We explored songs he wrote prior to his imprisonment in Terezín and then a piano sonata and a string trio he composed while imprisoned, which led to discussion of the artistic expression of composers facing discrimination and hatred. I had asked students, while they listened to the string trio's second movement, to close their eyes and envision what kind of story the music reflected, knowing that he composed the piece shortly prior to his deportation from Terezín camp to Auschwitz and then to Fürstengrube labor camp, from which he never returned. The students expressed a strong sense of grief and despair while listening to the second movement. A student with background in violin studies mentioned the unusual pairing of violin, viola, and cello that made the trio, and we compared this instrumental arrangement to other classical string ensembles that usually form a string quartet. Students referred to a melody they heard in this excerpt, which is based on a famous Czech song that Klein incorporated in the music, suggesting a strong sense of longing and loneliness that derived from the original song's text. Students also noticed the intensity of the minor theme that repeated several times within the section.

In contrast to the string trio, which Klein composed shortly before his deportation from Terezín to Auschwitz, we listened to Klein's piano sonata composed in Terezín two years earlier in 1943. Once again, students closed their eyes and meditated over the various excerpts within the piece. They detected the strong rhythmic motifs in the music. They heard harsh

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dissonances that sounded to them like an array of anger, despair, some positive tunes, and sounds of machine guns and trains. The discussions of Klein's music concluded with guided listening to one of three songs he composed in 1940, shortly after his expulsion from higher education studies due to the Nuremberg laws enforced in Czechoslovakia. Students read through the English translation of the third poem and an accompanying article describing the songs and their background (Gertsenzon, 2019). They suggested that the text reflects the loneliness Klein himself was facing at the time: "Dusk has fallen from on high, all that was near now is distant . . . all becomes an uncertain blur, the mists creep up the sky; ever blacker depths of darkness are mirrored in the silent lake" (Goethe).

As the semester unfolded, the class continued exploring different themes each week. The subject of musical life in ghettos and concentration camps has been widely research by Gila Flam and Shirli Gilbert, who respectively published extensive monographs on the songs of the Lodz Ghetto (Flam, 1992) and music in Nazi ghettos and camps (Gilbert, 2005). Each of these monographs contains hundreds of resources. My rationale for prioritizing certain themes over others from these two important sources was to choose the most communicative musical testimonies that would be simple enough to introduce to the students and that would relate to their lives if possible. Therefore, we listened to a variety of street songs and partisan songs (armed groups fighting against the Nazis during World War II). We explored the musical culture of the Lodz Ghetto of Poland as told in Flam's Singing for Survival, specifically analyzing the text of several songs that shed light on ghetto life, politics, and daily struggles. Yankele Hershkowitz was a central figure to this discussion. A tailor by trade, Hershkowitz became the troubadour of the ghetto, singing numerous songs that many survivors recalled and recorded in their own voices after the war. Hershkowitz created satirical songs about life's hardships, ghetto politics, and corruption, all in a humorous manner that paid him well in food, money, and gifts (Flam, 1992). While listening to these songs, we also discussed the historical evolution of the Jewish ghetto since the Middle Ages in Venice and the ways it was operated during World War II.

We adopted a completely different perspective in a subsequent discussion of music of the Jewish ghetto in Poland. We explored Hirsh Glik's partisans' song titled *Zog Nit Keynmol* (*Never Say You Have Reached the Final Road*) along with Shirli Gilbert's chapter entitled *Vilna* on the subject (Gilbert, 2005). We read the translated text of *Zog Nit Keynmol* in the context of the historical events in the Vilna Ghetto and the neighboring town Ponar, where

70,000–100,000 people were murdered between 1941–1944, mostly Polish and Lithuanian Jews, Soviets, and Romani. *Zog Nit Keynmol*, considered an anthem of the partisans, was one of various songs that reflected their morality and encouraged them to continue fighting against the Nazis; it became a popular song in the Vilna Ghetto. For the students, hearing such an optimistic song that emerged from the violent murders and the ghetto struggle provided a new understanding of defiance and resistance.

Other class discussions focused on music in Ghetto Krakow, in which the singer/songwriter Mordechai Gebirtig lived and was murdered in 1942. Gebirtig's songs reflect on the life and family relationships in the small Jewish town (also called a *Shtetl*) in the years that preceded the Holocaust. Students explored these songs while also listening to his song *S'Brent* (*Our town is burning*), which he wrote in response to the pogrom (massacre) against the Jews in the town of Przytyk in Poland in 1936. Students were asked to consider how they would describe their hometown and how they would put their personal family and town relationships into a poem. Students also discussed Gebirtig's music in response to identity and brought up the question of how music reflects who we are and where we are coming from. To illustrate better how Jewish small-town life is seen through Gebirtig's eyes, we watched scenes from the movie *Fiddler on the Roof*.

In another class session, students watched videos of music in the context of spiritual resistance. The opera *Der Kaiser Von Atlantis* by Viktor Ullmann presented death as a character who decides to strike, and as a result no one can die. The opera mocked Hitler and presented death as the salvation that would redeem people from their misery. Students discussed the libretto in the context of life in Terezín. Following that discussion, we held a session on the children's opera *Brundibár* by composer Hans Krása and on video testimonies of survivors who performed this opera in Terezín. By the end of the session, students viewed the plot and numerous performances of the opera in Terezín as a form of artistic resistance, escape, and healing for the children who performed and watched the opera.

As the course neared the end of the lecture/discussion component, students once again returned to the music of Arnold Schoenberg in his 1947 composition *A Survivor from Warsaw*, which responded to the events in the Warsaw Ghetto. Prior to reading excerpts from *Musical Witness and Holocaust Representation* (Wlodarski, 2015), students debated whether *Survivor from Warsaw* featured a genuine testimony on which the composition is based or a fictional one. The students provided their own reasoning for their

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interpretation. After reading excerpts from Wlodarski's research on the matter, they learned about the background and evolution of the piece, especially how for Schoenberg his composition might have been a personal reflection on the Holocaust, which he himself survived by fleeing Europe to the United States. Students analyzed the Hebrew text featured in this composition, including the *Shema*, which is a prayer central to every Jewish person. In the context of *Survivor in Warsaw*, this prayer, along with the narration in the piece, led to discussion of ways to commemorate the Holocaust, faith, and identity during times of uncertainty.

The most emotional class session took place when I presented a short introductory lecture on the 1941 massacre in Babi Yar. Babi Yar, a ravine in Ukraine, was the site of a massacre in 1941 that occurred during the German invasion of the Soviet Union. In the aftermath of this event, in which approximately 33,771 Jews were murdered, the Soviet government did not publicly acknowledge the killings and denied requests to commemorate and acknowledge the catastrophe. Two decades later, in 1961, the Russian poet Yevgeny Yevtushenko commemorated the massacre against the Jews in a poem titled Babi Yar. Russian composer Dmitri Shostakovich set this poem to music in the first movement of his thirteenth symphony, also titled Babi Yar. While we listened to the first movement of the symphony and analyzed the text and musical elements in the symphony, which reflected both Russian musical traditions and solidarity with the Jewish people, we connected the music, the poem, and the historical events to the personal video testimony of David Ayzenberg, a survivor of the Babi Yar massacre (Ayzenberg, 2016). Mr. Ayzenberg described the walk to the ravine, the treatment of the people at the ravine, the cold-blooded murder of a young child by one of the Nazi collaborators, attack dogs biting those who did not obey the commands, bodies in the ravine, and the ways he survived the atrocity. This class session brought some students to tears. At the end of this testimony, there were no questions. Silence and personal reflection spread in the room.

"FORBIDDEN SOUNDS: MUSIC OF THE HOLOCAUST," THE CONCERT

The concert was the culmination of the semester-long study of music in the Holocaust. The idea of a concert emerged as an additional dimension of learning for those students who were capable of playing it. Performers of musical instruments ranged from 5–6 students per class, and prose/ poetry/monologue reciters ranged from 2–3 students per class. The rest of the students engaged in marketing (honors college blogs, Facebook, Instagram, poster, flyers) or served as photographers, videographers, PowerPoint slide technicians, booklet designers, and program notes editors. For each of the concerts, I brought in some additional professional musicians to elevate the level of performance. Students chose compositions by researching and consulting with me. Among the student performers, the 2018 concert featured two pianists, an oboist, a violinist, a singer, and three reciters. The 2019 concert featured among the students a harpist, a violinist, three singers, two reciters, and a trumpetist, including some from the previous class who wanted to come back and perform again. The concert took place in a 150seat auditorium, which was at full capacity during both performances. Each of the performances included music by composers banned during the years 1933-1945, music by Terezín composers, and music by composers from other camps (see Figure 1 below with the 2019 concert program). To make such a production possible, students were assigned performing pieces early in the semester, and rehearsals took place throughout the semester during weekday evenings and weekends. The concert was titled in their assignment list as "artistic expression," and they were required to write program notes for the pieces. All the students in the course were required to attend both dress rehearsals and the performance. Both concerts drew an audience comprising students, their families and friends, the university community, and others from the local community who had heard about the concerts from social media, news articles, and websites.

OTHER COURSE ASSESSMENTS

The assignments for this course were in line with assignments given in other courses within the Ball State University Honors College. Attendance and active meaningful participation in class were crucial for student success and were strictly enforced. Reflection papers were assigned at the end of each week. Some sessions required reading in advance to prepare for the week's discussions. At the end of the semester, students took a listening test that featured 10–12 music excerpts from the material we discussed in the classroom. Students had the chance to listen to each excerpt for 60 seconds and then write down the title and composer of the assigned excerpt. Each student in the course had to present to the class a chosen subject with an accompanying paper of 2000 words. Some students discussed and expanded subjects we had already explored while others focused on subjects not previously covered in the class.

Wiegenlied (Lullaby) Arr. Gideon Klein (1919-1945) Wesley Byers, Tenor & Galit Gertsenzon, Piano	Feuillets d'album Henriette Renie (1875–1956) I. Esquisse, III. Angelus Lydia Wiseheart, Harp	Buchenwald Lied Hermann Leopoldi (1888-1959) (Arranged for Trumpet and Piano by Drew Tomasik) Drew Tomasik, Trumpet & Galit Gertsenzon, Piano	Gedenken (Commemorate) Festordnung am 3.11.1940 James Simon (1880–1944)	(Fixed Order on 3.11, 1940) Galit Gertsenzon, Piano	S'Brent Mordechai Gebirtig (1877–1942) Yankele Dahooo Barne Morris Common Branch	The Moldau Tvdia Wise Manuary Neurosana (1824–1884) The Moldau Tvdia Wise Marthana (1824–1884)	Moderato from the Suite Op. 17 Pavel Haas (1899–1944) for Oboe and Piano (Arranged for Saxophone and Piano by Jody Nagle) George Wolfe, Soprano Saxophone & Galit Gertsenzon, Piano
BALL STATE UNIVERSITY HONORS COLLEGE PRESENTS:	April 11 7:30pm Hahn Hall	Serenade Robert Dauber (1922–1944)	cophone and Piano, I Erwin Scl	Excerpts from A House With Stories to Tell Zita Nurok (b. 1941)	I Wander Through Theresienstadt II Wander Through Theresienstadt Arianna Zielinski, Mezzo Soprano & Galit Gertsenzon, Piano	Wiegala IIse Weber (1903–1944)	Death's Diary: The Parisians Markus Zusak (B. 1975)
FORBIDDEN SOUNDS: MUSIC OF THE HOLOCAUST	PROGRAM	Sam Turk, Violin & Galit Gertsenzon, Piano	fe, Alto Saxophone & Galit Gertsenz	Chimere (ChiChi) Nnatubeugo		Cassie Buescher, Mezzo Soprano & Galit Gertsenzon, Piano	from The Book Thief Devon Lejman

FIGURE 1. FORBIDDEN SOUNDS: MUSIC OF THE HOLOCAUST CONCERT PROGRAM APRIL 2019

RELATED COURSES TAUGHT BY OTHERS

Although I believe that the approach I used to teach the music of the Holocaust was successful, other teachers have approached the subject differently. Nick Strimple at the University of Southern California has been teaching courses on music of the Holocaust for the past twenty years, including an undergraduate general education seminar titled "Holocaust and the Creative Impulse," which introduces students to the music, visual art, and literature of the Holocaust (Strimple, personal communication). Similar to my course, "Holocaust and the Creative Impulse" explores songs from Krakow and Vilna Ghettos and compositions from Terezín concentration camp. Strimple's course traces the development of artistic activities in Jewish communities and Nazi occupied camps and ghettos from 1933–1945. He also examines the performances of prohibited music such as jazz during that time. His course does not include a performance component.

A course by Rachel F. Brenner and Teryl L. Dobbs at the University of Wisconsin titled "Holocaust: Literature, Music, Memory, and Representation" is a writing-intensive course that examines the Holocaust through literature and music as artistic forms of testimonial memory. An undergraduate research paper is central to this course whereas in my course the writing is on a smaller scale. The music explored in Brenner and Dobbs's course ranges from some music of the Holocaust to popular music and is discussed only in the context of Holocaust literature rather than standing alone as an independent subject. In their course, memory and representation are analyzed within the commemoration of the Auschwitz liberation, aural and historical testimonies from Auschwitz, testimonies of survival, children in the Holocaust, testimonies of non-Jews, and reception of the Holocaust in Israel. They culminate their course in a research symposium.

LESSONS LEARNED

Research and performance of Holocaust music in recent decades has been continuously evolving. A lot of the music that has been kept in archives is being digitized and becoming available freely over the internet. There has also been extensive musicological research and recording of the music worldwide of both the known and newly discovered repertoires. Thus, each recurrence of my course will need to include references to the newest findings in the subject.

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In assessment of student learning, I believe future assignments should also include writing about the required reading of related literature in the course and a preliminary reading summary submitted prior to the beginning of the week. Having tried this strategy in a few of the sessions, I came to realize that a more rigorous requirement of summarizing the reading helped students develop better thinking and ideas for discussion. Successful assessment so far has included the weekly reflection papers that students submitted showing that they had become familiar with the various topics in music of the Holocaust and were able to connect musical styles in different camps and shared expressions between the pieces. Students also learned to find their favorite musical expression and refer to them throughout the semester. Within the literature used in the course, however, it would help to add selections from books such as Music of Another World (Laks, 2000), Violins of Hope (Grymes, 2014), or The Pianist (Szpilman, 2002) in order to provide an additional dimension to the learning process beyond scholarly articles, web sources, and book chapters.

In retrospect, the performance functioned as an educational showcase for the community, and the students rehearsed and practiced for it with sincere intentions for a successful concert. Their motivation to succeed in the concert performance was greater than just wanting to pass the course. The main goal for this course was to educate the students about the atrocities of the Holocaust and to do so by focusing on music that emerged from those atrocities; at the end, in addition to most students exhibiting good standards in their written assignments and listening test, some transferred their acquired knowledge from the class to our community and beyond.

Additionally, a series of events occurred during the organizational process of the second concert in 2019 as I reached out to several organizations to request small financial assistance in covering costs to pay the guest performers. The assistance from these organizations led to the establishment of a small research and performance fund at the honors college. The initial assistance and then further donations allowed me to take students who showed good standing in the course to performances and projects off campus and to produce professional recordings of the music we performed at the concert. I also sponsored an organized trip at minimal cost for participants to see the *Violins of Hope* exhibition in Fort Wayne and a Holocaust-related theater production of *Ghetto* by Joshua Sobol. What started as an elective colloquium became a valuable and immersive educational experience for students.

ACKNOWLEDGMENTS

I would like to thank Dr. Larry Fromm for all his suggestions on improving this manuscript and his continuous help throughout my work. Many thanks to Ball State Honors College Dean John Emert for opening the door for me to teach this course. I would also like to express my heartfelt gratitude to Ms. Haya Gertsenzon for all her support and continuous push to publish my work.

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The author may be contacted at

ggertsenzon@bsu.edu.

Brave New Worlds: Transcending the Humanities/STEM Divide through Creative Writing

Adam Watkins and Zahra Tehrani

Purdue University

Abstract: Creative writing offers a critical and innovative form of inquiry promoting integrative learning that transcends disciplinary barriers. Authors first provide an overview of the scholarship on creative writing pedagogy, its unique capacity to engage a range of knowledge domains, and its significance for honors education. They then offer primary examples of incorporating creative writing projects into two honors classes that bridge STEM fields and the humanities. Analyses of student reflections (n = 35) in relation to learning outcomes strongly suggest that creative writing helps students explore course concepts through several ways of knowing—critical, situational, and affective—while fostering new perspectives on these concepts, their interconnections, and their implications. The value of creative writing as a platform for self-directed and interdisciplinary learning within the transdisciplinary context of honors is discussed.

Keywords: interdisciplinary education; Science, Technology & Society (educational movement); inquiry-based learning; integrative learning; Purdue University Honors College

INTRODUCTION

In "Honors Education: Innovation or Conservation," Scott Carnicom makes the compelling argument that much of what is innovative about honors education is, in fact, based in traditional models (50). In his view, the reason to value honors "is that it fosters the best educational practices of our culture's history, maintains a tradition of critical inquiry that transcends disciplinary

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boundaries, promotes creativity, and prepares students to become learners, thinkers, innovators, and leaders for the rest of their lives" (53). To be sure, honors education is rooted in the liberal arts tradition and aligns with Renaissance perspectives that shunned "specialist thinking" as an "excluding position from which to develop human understanding" (Morley 155–56). The paragon of this Renaissance perspective, Leonardo da Vinci, argued that the ideal was to develop a complete mind, which required one to "[s]tudy the science of art. Study the art of science. Develop your senses—especially learn how to see. Realize that everything connects to everything else" (qtd. in Morley 166).

The need to bridge humanities and STEM learning in order to promote interdisciplinary inquiry and cultivate complete minds has become an important talking point in honors education as well as a core goal at the Purdue University Honors College. Such a goal is necessary if we wish to free students from the silos of higher education that train them to "think in terms of rather narrow, often extremely narrow, research interests" (Werth 37). In true Renaissance spirit, Andrew Martino suggests that "honors can be a celebration of the imagination and of what it means to be human," which can be achieved "in collaboration with other STEM-based disciplines" by cultivating an appetite for inquiry and intellectual exploration that spans a truly "interdisciplinary milieu" (29). Such an approach would be an important step toward fulfilling Da Vinci's edict to study the science of art and the art of science, and to look deeply into complex interconnections of the world around us.

The question remains, however, how best to fulfill Da Vinci's edict. With Carnicom's insight in mind, we might look for innovation in tradition. We might also acknowledge that the division of the arts and sciences was not always the way of the Western world. As Laura Otis outlines wonderfully in her anthology *Literature and Science in the Nineteenth Century* (2002), the perceived split between the two cultures of literature and science "was never a nineteenth-century phenomenon"; instead, "[s]cientists quoted well-known poets both in their textbooks and in their articles for lay readers, and writers we now identify as primarily 'creative' explored the implications of scientific theories" (xvii; see also Morley 155–59). As Otis highlights, both scientists and literary authors engaged in creative works to explore the social, personal, political, and philosophical implications of scientific discoveries. Mary Shelley's *Frankenstein* (1818) and H. G. Wells's *The Time Machine* (1895) are popular examples from either end of the century, but between them one finds physicians like Oliver Wendell Holmes and S. Weir Mitchell turning to

fiction as an alternate mode of inquiry. This imaginative rather than empirical approach allowed them to explore scientific concepts and theories from new perspectives and encouraged them to speculate about complex relationships between mind, body, society, and environment. The dynamic relationship between creative writing and sciences did not stop at the end of the nine-teenth century, of course, and continues today in science fiction and a variety of other genres. In other words, creative writing has long been recognized as a dynamic platform for self-directed inquiry, one that allows authors to embed scientific concepts in the situated realities of their characters or speakers, i.e., the physical, social, and technological contexts of their lived experience. In this way, authors have explored the implications of these scientific concepts and their interconnections with other ways of knowing.

We believe, in concert with Amaris Ketcham, that creative writing could be an "interdisciplinary tool" of significant value to honors students. In the right contexts, creative writing and other arts act as dynamic arenas for interdisciplinary thinking in which "[t]he humanities can easily combine with other disciplines through applied speculation," leading to complex and rich learning moments where "art, literature, history, and philosophy can inform and enlighten STEM studies" (32). We also believe, though, that STEM concepts can in turn enlighten humanistic inquiry and its driving questions. Scientific and technological concepts have the potential to revolutionize the ways students understand themselves and their world, though this kind of transformative and integrative learning is rarely promoted in discipline-specific STEM courses. Conversely, creative writing courses rarely encourage students to explore concepts from other disciplinary fields, focusing instead on the craft elements of literary genres. Honors education-given its commitment to interdisciplinarity and self-directed inquiry-provides an ideal context for leveraging creative writing as a platform for transformational learning that reunites the arts and sciences.

In what follows, we will provide an initial discussion that further explores creative writing's value and potential as an interdisciplinary pedagogy. We are particularly interested in highlighting the unique mode of inquiry creative writing affords, how it lends itself to interdisciplinary thinking and the adoption of new perspectives, and how it thus works to address the learning needs of honors students. In the second section, we will offer our respective experiences with incorporating creative writing into honors courses that engage important intersections of the humanities and sciences.

CREATIVE WRITING: AN INQUIRY-BASED AND INTERDISCIPLINARY MODE OF LEARNING

The issue of specialization in higher education and the subsequent need to promote interdisciplinary thinking in honors education is already clear, although this issue is connected to several others. As Kate Wintrol and Maria Jerinic suggest, the current academic culture is one that relies heavily on testing and rote learning, a culture in which honors students have excelled (47; see also Badenhousen 28). As Sara L. Sanders and Janet S. Files suggest, honors students are "masters at traditional ways of learning and at verbal and analytic intelligence" (57). To their credit, honors students tend to be adept critical thinkers in spite of an academic culture that is over-reliant on memorization and testing, so honors education rightly places an emphasis on the cultivation of critical thinking skills. As Leslie Donovan observes, however, "the investment in the critical capabilities of [honors] students" has been unfortunately coupled with the neglect of creative thinking skills and creative modes of inquiry, such that "the educational advantages of artistic creation are frequently ignored or even lost" (96, 98; see also Woodard 39). This neglect is unfortunate as it sacrifices the benefits that Sanders and Files observe when creative writing is employed in honors education: a "joyful exuberance for learning" that results in "enhanced forms of thinking and representing" and gives students "another perspective on the material, another way to see it, to care about it, and to know it" (57). Jennie Woodard also affirms that creative writing lends itself to "creative problem solving" in the context of an interdisciplinary course on social justice (40).

A review of recent scholarship on creative writing as a mode of inquiry and learning tool offers further clarity on its educational advantages. In his chapter for *The Psychology of Creative Writing* (2009), Mark A. Runco makes explicit a key misconception about creative writing: while too often thought of as a product, creative writing "is best described as a process" that involves "not just a recording of ideas" but rather "a way of interacting with ideas" (184, 188). For Cathy Day, creative writing in educational settings allows for "a thinking process involving student-centered questioning and inquiry," where ideas from research and students' own lived experience of the world can inform one another (166). In this way, creative writing is not altogether different from more academic forms of composition, Day suggests, but creative writing affords a less restricted mode of exploration (173). Meryl Pugh reinforces this point when she argues that, in contrast to traditional academic writing, creative writing offers "radically different ways of asking and saying and knowing" that are equally essential to higher education (44).

A key part of this radical difference is the highly integrative quality of creative writing. While academic papers often work toward conclusions within a particular field of study, creative writing offers an inclusive and synthesizing intellectual arena, one that not only involves "many different aspects of human creative practice and human critical understanding" but also "a range of knowledge types" (Harper 106). This range of knowledge types incorporates the different disciplinary domains of the academy but also other knowledge types such as experiential knowledge, embodied knowledge, and affective knowledge. Such a mode of inquiry embraces different perspectives and challenges its practitioners to explore the interconnections between the world of ideas and the world of our lived experience; it privileges complexity, ambiguity, and the ongoing development of new questions.

Because of the intellectual flexibility it affords and its capacity to engage such a wide variety of concepts, creative writing has become increasingly popular as a mode of learning in disciplines across the university. Alexandria Peary has been the foremost scholar on this development, which she has dubbed Creative Writing across the Curriculum, or CWAC. According to Peary, narrative construction in particular is useful for activating course concepts and allowing students to see them through the lens of their characters' experiences (358–59). Another facet of narrative, highlighted by Trent Hergenrader, is the act of world building, or creating the contextual or situated realities of characters, which requires students "to work out in detail how different aspects of the world operate and interrelate, including governance, economics, social relations, and cultural values" (136).

The world-building aspect of fiction affords numerous opportunities for exploring the implications of a course concept, which can be embedded in a physical and social reality and explored from the numerous perspectives within that context. Hergenrader has noted that his colleagues in various fields have come to recognize the "interplay between characters and setting" as a particularly valuable tool for learning, one that has provided "a useful handle for their students to better understand their own disciplines" (144). He continues by suggesting how writing stories about different scenarios and through the unique perspective of multiple characters might "shed new light on other areas of humanistic inquiry," including "political science, public policy, criminal justice, philosophy, psychology, and even the natural sciences" (144). Peary's work affirms that the educational benefits of creative writing are increasingly of interest to faculty from a wide variety of disciplines, including those in the physical and human sciences. Instructors in other disciplines who have adopted creative writing in their courses "repeatedly point to its ability to strengthen students' personal understanding of course material as well as to draw students' attention to larger social forces and issues and the perspectives of others" (Peary 352).

We concur with Peary's sense that creative writing has an "enormous potential as an interdisciplinary pedagogy" (341) in that creative writing's flexibility as a learning tool makes it adaptable to a variety of disciplines. We also believe that creative writing can be an effective learning tool in courses that are already deeply interdisciplinary because it allows students to bring various disciplinary concepts into play within the situated realities of their narratives. As honors educators in a STEM-oriented university, we have both sought to create classes that bridge STEM and humanities, and we have successfully employed creative writing as a keystone in that bridge. Each of us has a unique perspective to offer, not only because of the differences in our courses and the creative writing projects we employ in them but also because we hail from opposite poles of the humanities/STEM spectrum. Adam Watkins earned an MFA in poetry before going on to do a PhD in literary studies, with an interdisciplinary focus on nineteenth-century British literature, the history of human sciences, and environmental studies. Zahra Tehrani earned her PhD in molecular, cell, and developmental biology, with her current work focusing on public perceptions of scientific advancements, particularly stem cell treatment. Given our disparate backgrounds, we have approached the bridge between humanities and STEM learning from opposite ends and have encountered unique challenges in crossing it.

Despite these differences, we share an overarching pedagogical approach in both our classes, which aligns closely with Science, Technology, and Society pedagogy, or STS. The STS approach emerged within science education in the late 1980s and has been gaining traction in higher education ever since. According to David D. Kramer and Daryl E. Chubin, STS offers "a window for looking at the social and natural world differently. Its intellectual value stems from its breadth and its attentiveness to context and stakeholders in the outcomes of issues, controversies, and disputes that contain a science or technology component" (2). In a 2010 article, Erminia Pedretti and Joanne Nazir suggest that STSE (many have now added "Environment" to the initial triad) involves six major currents, with four being relevant to our own courses. The first is the historical current, which "focuses on extending students' understanding of the historical and sociocultural embeddedness of scientific ideas and scientists' work" (610). The sociocultural current is closely related in that it recognizes science and technology as "not self-contained activities but embroiled in politics, economics, and culture" (615). A key point of emphasis in this current is that science is "only one way of knowing," and approaches to this current often bring multiple knowledge systems to bear on a single topic. The two other currents are the logical reasoning approach and the value-centered approach, both of which promote student understanding, analysis, and problem solving regarding socioscientific issues: the former privileges a scientific approach to such issues and the latter an ethical and moral reasoning approach (612–14). According to Pedretti and Nazir, the historical, sociocultural, and value-centered approaches are particularly effective at promoting an affectively rich, multi-perspectival, and deeply contextualized understanding of the interconnections between science, technology, and society. Thus, they align strongly with the educational affordances of creative writing, which can similarly engage multiple ways of knowing and explore the interconnections of diverse ideas within situated realities. The merger of these two interdisciplinary pedagogies is well suited to honors education and its efforts to promote, in the words of Andrew Werth, "a truly holistic, systemic, integrative worldview uncluttered by familiar limits and barriers" (36).

ADAM WATKINS: LITERATURE AND SCIENCE IN HUMAN REDESIGN

Following the history of an idea model, I developed HONR 399: Human Redesign with a focus on the evolving conceptions of the human subject across the nineteenth century. Based on my interdisciplinary research on this era, I had grown to appreciate how radically the concept of the human had evolved and how integral both science and literature were to this evolution, so I felt it would make an ideal subject for an interdisciplinary course that coupled STEM and humanities learning. Following the theoretical work of Thomas Kuhn and Michel Foucault, the course was organized around chronological paradigms, with key shifts occurring at the end of the eighteenth century, in the middle of the nineteenth century, and at the end of the nineteenth century. The goal, then, was to provide a learning context in which students could begin to identify overarching patterns of shared meaning across different knowledge bases, to recognize the unique modes of inquiry that different disciplines brought to a single topic, and to investigate how these modes of inquiry were operating within a larger sociocultural environment with competing views and values.

The primary textbook was Otis's Literature and Science in the Nineteenth Century. Beyond an excellent selection of texts, Otis offers insightful accounts of the complex relationships between literature and science in her introductions to different topic areas, including Sciences of the Body, Evolution, Sciences of the Mind, and Social Sciences. In reading works from this anthology along with a few other selected texts, students saw that questions about the human were addressed from a variety of perspectives: what does it mean to be a human being? what is the proper way to study the human? are all people equally human? what differentiates a good versus a bad human? Students also witnessed how these questions spurred the emergence of several major disciplines and theories, including sociology, psychology, neurology, educational theory, and evolutionary biology. To further affirm the role played by literary authors in this discourse, students read three significant literary works that engaged with contemporaneous sciences and evolving conceptions of the human: Mary Shelley's Frankenstein (1818), George Eliot's The Lifted Veil (1859), and Robert Louis Stevenson's The Strange Case of Dr. Jekyll and Mr. *Hyde* (1886). During the weeks we covered these texts, we took time to summarize and synthesize the new ideas about the human that had been explored up until that point in the unit, most of which were integrated to some extent within the literary works. Students were able to see, then, how Shelley, Eliot, and Stevenson were not simply engaging new concepts about the human but were also defining those concepts further, exploring new implications, and shaping the paradigms of their day.

For the second iteration of the course, I included two creative writing assignments. Most of the students were STEM majors, and I wanted them to experience firsthand how writing a story can allow meaningful engagement with a socio-scientific discourse. The project also provided students a creative interface—an intellectual sandbox—where they could integrate scientific, philosophical, and cultural concepts from course readings. The first project was a 1,500-word scary story along with a 300-word critical reflection. In the reflection, students identified the course concepts they engaged, how they used the format of a scary story to put these concepts in play within the situated realities of their characters, and what they consequently learned about the concepts and their implications. To prepare students for this project, our discussions of Shelley's *Frankenstein* as well as Edgar Allan Poe's "The

Tell-Tale Heart" and "The Masque of the Red Death" addressed the cultural attitudes and anxieties these texts reflected. Even more crucial to the project, I led discussions on how these authors used narrative frameworks, character development, physical and social settings, and dramatic events to explore a particular idea, question, or issue that was central to the contemporaneous discourse on the human. The discussions on Shelley and Poe were followed by more explicit conversations about the respective perspectives, ideals, affordances, and shortcomings at stake in literary and scientific modes of inquiry, and thus their respective capacities for exploring questions about the human subject. In this way, I not only prepared students to write stories that embedded course concepts and explore their implications through situational thinking, but I also set them up to think critically about their creative process as a form of thought experiment.

The other piece of creative writing was to create a quack theory that was rooted to some degree in a scientific concept that had been offered in the nineteenth century. For models, we explored phrenology, which was based on early science of the mind, and mesmerism, which was inspired in part by Galvani's theory of animal electricity and Faraday's work on magnetic force. After reading several quack theories from this period, we discussed the forms and strategies that authors used to establish the credibility of their ideas. We also examined how these theories reinforced cultural values, undermined certain core beliefs, and/or agitated new fears about the human subject. As with the scary story, students included a critical reflection that outlined the course concepts they engaged, the creative choices they made, and what they learned in the process.

Based on my analysis of submitted projects from my fall 2018 course, students were successful at achieving the core learning outcomes of these assignments. For the scary story assignment, every student developed a compelling narrative that explored interconnections between course concepts as well as the personal or social implications of these concepts. One student, inspired by the work of James Cowles Prichard, portrayed a character's biologically determined descent into madness and criminality in order to interrogate issues of free will, personhood, and ethics. Another student depicted a traumatic family event in order to explore the influence of trauma on sanity and personal identity as understood in this period. Most of the other students took their lead from early neurological theories, focusing on the implications of a physiological mind that could be influenced or even controlled by environmental factors, whether by mind-controlling tonics, mob mentality, extreme forms of education, parasitic organisms, or electric shock treatments. In each case, students showed strong engagement with an issue that was central to the early nineteenth-century reimagining of the human as well as cultural anxieties about the overreach of science, the power of institutional discipline, and the place of women and lower classes in society.

In the critical reflections for the scary story project, several key themes emerged. The first is that students gained a clearer and more integrated understanding of course concepts. Several students noted in their reflections that the scary story format allowed them "to pull ideas from multiple texts we have discussed in class" (Karl), and all seventeen students described integrating course concepts from at least two texts that would now fall under different disciplines. As Hannah wrote, "All these ideas were floating around my head, but I could not get a clear grasp on them," but once she began to "mix everything together into this story," many of the ideas become clearer:

Portraying these fears through a complex narrative made the mixture of ideas very clearly meld into one, and that clear message is much easier digested than by a simple explanation in a 1200-word essay. For that reason, I highly enjoyed the experience of writing this.

In comparison to the traditional academic essay, Hannah found this narrative approach to inquiry a better learning tool for the integration of diverse concepts. As another student noted, part of the value of the project was that it allowed students to render difficult or abstract ideas more tangible by embedding them into the narrative:

As the story develops though, I feel like we're able to incorporate other more abstract fears one might have during this century.... So overall the story is able to touch on a number of different ideas and tie them altogether. Which I find really interesting how everything is able to be related to each other, it's really led me to see everything as an abstract organism [in] some sense. (Kip)

Through such embedding, students not only gained a better handle on abstract ideas, they also found that they can connect ideas in new ways. The result, as Kip suggested, was that the once disparate array of course concepts became a larger, nuanced, organic understanding of the concepts and their integrated meaning.

Evident in both Hannah's and Kip's statements is a sense of creative writing as process-oriented, in which the act of developing the narrative catalyzes new questions and ways of thinking. Four other students specifically referenced this aspect of their creative inquiry process, with the following two statements being exemplary:

The story brought questions to my mind. How far would people go in this generation when listening to authority? Does a person's selfworth impact their likelihood to be peer pressured? (May)

The goal of this piece was to raise a lot of questions about what it means to be human and the problems associated with being human essentially questions we have been attempting to answer in this class. Does the narrator have control over himself? . . . What effect did the narrator's obsession with crime as a child have on his sorry state as an adult? After exploring all of these questions, I realized that I myself don't have a firm answer for all of them. This assignment has encouraged me to think critically about what I believe insanity is, how strong a force determinism is, the effect of loneliness, etc. (Sam)

As these statements show, students came to new questions through the development of their stories, questions that opened up new possibilities for critical thinking about specific course concepts as well as the larger themes arising from shifting notions about what it means to be human.

For thirteen of the seventeen students who completed the project, the exploratory nature of creative writing led to changes in how they understood the concepts they were exploring or to deeper thinking about major course themes. For Rhonda, the project helped her see some of the "darker" implications of discipline in child development: "My thinking about discipline evolved throughout this process into something far more disturbing than before and made me understand that the theory of discipline really stems from a fear of not being able to maintain control over others." Kim's story led her to a new recognition of a key problem at the heart of the nineteenthcentury conception of the human as she realized that "to be human is to be able to make choices but those choices you get to make will always be determined from something beyond your own control." For a handful of students, the key learning outcome pertained to the complex relationship between science and literature. Kim acknowledged that the literary readings from class and his own work on the scary story revealed the greater capacity of literature to explore the cultural implications of scientific progress: "While science is good at everlasting inquiry into the natural elements, I think literature might be doing a better job inquiring about the inquiries, regarding their ethics, uses, and implications." Jack, on the other hand, gained a new perspective on

the epistemic challenges of early science, when existent knowledge was insufficient for vetting new theories; in such a situation, "it is almost impossible to differentiate what is just some quack theory with what could be groundbreaking science." Jack continued, "This is something I hadn't considered until I got to watch Dr. Hoskins"—the tragic protagonist of his story—"do it in front of me."

As suggested by these comments, the creative thinking at stake in this project led to significant critical thinking about course topics and themes, yet I also want to highlight one other way of knowing that this project facilitated: perspective-taking and empathy. By writing these stories and thus exploring the perspectives of characters they developed, students were able to suspend their twenty-first century perspective in order to better understand the viewpoints and anxieties of nineteenth-century subjects. Six of the seventeen students stated in their reflections that the project facilitated perspectivetaking and subsequent learning. One student noted that she previously found the nineteenth-century discourse about disease to be overdramatic; however, she chose to imagine herself as the protagonist of her story and found that by "putting myself in that situation" she better understood the nineteenthcentury anxieties that resulted from a lack of knowledge about disease and contagion (Elen). Jack similarly acknowledged that he was at first "hesitant to accept that I could fall victim to the same anxieties" that resulted from Hartley's theory of nervous vibrations and its implications for mental determinism, yet writing the story "helped me empathize with what they must have felt reading [Hartley and others] for the first time, which in turn helped me understand the anxieties themselves better." Many of the reflections affirmed that creative writing proved a synthesizing activity, not just between abstract ideas but also between different modes of knowing, such that logical analysis, situated problem-solving, and affective thinking were simultaneously employed in the effort to engage course concepts through narrative. This approach clearly resonated with students; as John notes, "It was interesting to explore these ideas via a horror story, because it allowed for more chilling ideas to creep in, in comparison to just a straight analysis."

The emphasis on creating a story that deals with cultural attitudes and anxieties further enhanced the affective learning component but also resulted in an intellectual exploration that felt different from the usual academic papers with which students are more familiar. Tinesha described this project as an opportunity to "play around" with ideas that had real meaning for her. Sam, who stressed the myriad questions her story raised, affirmed that the exploratory nature of the project allowed her to encounter intellectual ambiguity in a way that was at once beneficial to her learning and pleasurable: "[A]lthough I cannot say with confidence that I now magically have definite answers to those questions, I can say that I have explored these topics deeper and have thoroughly enjoyed doing so." Jack acknowledged, for instance, that "this story resonated with me," and this kind of personal relevance deepens the learning outcomes associated with the project. Overall, twelve of the seventeen students indicated in their reflections that the scary story project facilitated not only a unique way to engage critically with course concepts but also a more enjoyable one.

The quack theory project led to many of the same learning outcomes as the scary story. Nearly all students acknowledged engaging and connecting diverse concepts from different course texts. Six of the seventeen students stressed in their reflections that the assignment promoted perspective-taking and thus a new lens for understanding course concepts. For instance, Kim wrote, "After writing my quack theory I am now at a better understanding of why the ideas about hysteria were accepted during the time and how women felt about the disease and the potential of having it." Helen affirmed: "In my experience, the empathy and perspective I gained was the most valuable takeaway from the assignment. I can now say that, at least much more than prior to this assignment, I have a genuine understanding for the people and culture of the nineteenth century." Also akin to the scary story project, students stressed how much they enjoyed approaching difficult course concepts through the quack theory project, with six students emphasizing that they felt free to explore topics that interested them and "have fun with this assignment" (Margaret). Mike described the assignment as "a fun way to explore concepts we could otherwise explore in significantly less fun ways." Elen wrote, "I really enjoyed this assignment!"

One notable difference I saw in the quack theory project was the way students' critical and creative thinking were engaged. Instead of integrating course concepts through narrative contexts and characters, students took a course concept and developed from it a theory that was equal parts rational and absurd. The effort to develop a coherent if misguided theory helped many students see course topics and themes from new perspectives. Helen's reflection epitomizes this well:

When I began to write this, I thought the idea of a fully connected mind and body was ridiculous. As the assignment title suggests, it was a quack theory to me. But, throughout the writing process something changed. I had to come up with rationalizations for the characters and I had to make the theory connect, and through that I understood the theory as meaningful and understandable.

In total, ten out of seventeen students identified ways their understanding of course concepts or key themes were altered or transformed through the project. Some, like Helen, developed a new perspective on a course concept with which they were already familiar. Others, like Sam, got a new perspective on overarching concepts: "Although my [quack theory] is founded on the timeless good vs. evil topic, writing this piece made me think deeper on this topic than I have before." Other students gained a new perspective on the precariousness of scientific knowledge in this era, with most realizing how easily a scientific truth could be distorted in order to cater to the values, hopes, and fears of a society as they had seen done in several course texts.

The students' scary stories and quack theories were a pleasure to read and showed a strong effort to engage, interrogate, and connect course concepts. At the same time, I found that in a few cases students struggled to articulate in their reflections the critical and creative thinking that I could see at work in their scary stories. My impression was that many students were more enthused by the creative writing than the critical reflection and chose to focus most of their time on the former. I also gathered that some students had a hard time with the metacognitive work that goes into analyzing one's own thought processes and learning. For that reason, I gave students the opportunity to revise their reflection for the scary story if they wished. All but one student had earned a solid B or higher, so I was surprised when eight of the seventeen students took this opportunity, even two who had received low A's. Most of the revisions were light yet demonstrated a continued effort to think critically about narrative choices and how the creative process led to new or more complex perspectives on course concepts. The same opportunity was not provided for the quack theory. Those reflections were more consistently successful, suggesting that the students had a better understanding of my expectations and/or had improved in their ability to think critically about their creative process.

ZAHRA TEHRANI: IMMORTALITY

The recent movement in higher education to integrate the humanities and sciences presents many opportunities for innovation in the classroom. Many integrative approaches are used in higher education curricula with varied learning goals of integration (National Academies of Sciences, Engineering, and Medicine). One integrative model is to apply content and/or pedagogies from the humanities and social sciences to the natural sciences and engineering to foster student understanding of the societal, economic, and political impact of scientific discoveries and technological developments (Akcay and Akcay; Han and Jeong). In one integrative assignment, I used creative writing as a platform to explore the scientific concepts (i.e., digital uploading of one's consciousness) and the social, legal, and ethical implications of mind uploading technology.

Like many honors programs, the Purdue Honors College encourages faculty to experiment with interdisciplinary approaches in the classroom. To this end, I developed an honors seminar titled "Immortality," which looked at what it would mean to be immortal and why we are drawn to the idea. The course first examined biological immortality by introducing students to biological theories of aging and biomedical technologies that could potentially lead to extreme, if not indefinite, life extension, thus laying the foundation to investigate issues of population, resources, family dynamics, and the value of mortal limits. The question of biological immortality prompted consideration of other possible forms of immortality, such as digital immortality via mind uploading. Mind uploading is the process of constructing a one-to-one model of every neural connection in the entire brain on software such that it behaves essentially the same way as the original brain (Sandberg). Mind uploading has been the muse of science fiction writers and transhumanist philosophers for many years. However, these futuristic visions were not grounded in science. To provide real scientific insights into the feasibility of mind uploading, a series of content-based lectures on the neuroscience of brain emulation encouraged students to think critically about complex issues. Through a series of scientific and philosophical discussions based on primary literature, we examined the nature of the uploads (e.g., Are digital copies conscious? Do they retain the identity of the original person?) and the biological mechanism of mind uploading (e.g., Does the person's body physically die during the transfer process? What features of the brain give rise to consciousness, and can those features be digitally extracted?) (Chalmers; Pigliucci). Furthermore, students considered what impact uploading would likely have on society by watching films that feature a future in which mind uploading is prevalent ("White Christmas" and "USS Callister" from the Netflix series Black Mirror), and they identified social, legal, and/or ethical questions raised in the films: e.g., Who will have access to the technology? Who will have

ownership of digital uploads? Should digital copies have rights protected by law? What should those rights be, and where should those rights stand in relation to the real person?

To deepen their understanding of these complex issues, students wrote a thought experiment in the format of a 1000-word short story in which they explored one idea from class about digital immortality along with a 500word critical reflection. A thought experiment is "the act of considering an untested, observable system designed to help evaluate a scientific concept, model, or theory—and attempting to predict aspects of its behavior" (Stephens and Clement 3). Thought experiments are a powerful tool for learning because they enable students to draw on experiential knowledge along with logical inference and conceptual knowledge in generating new knowledge (Reiner). Thought experiments are also an effective learning tool in science education (Roth).

Creative writing can be a useful vehicle for thought experiments. Students were excited by the opportunity to engage in creative writing and found it a refreshing change from philosophical and scientific discussions; however, most of them were from STEM majors and did not have any prior training in the craft; neither did the instructor. To overcome this difficulty, we needed a model to demonstrate how a thought experiment can be conveyed as a creative piece of fiction. To this end, we did a close reading of Alan Lightman's Einstein's Dreams, a collection of short stories about the nature of time told from the imagination of Albert Einstein in 1905 as he worked on his theory of relativity. One of the stories features a world in which people live forever, and students could see Lightman's reflections on how people's behaviors and social dynamics might change depending on their relationship to time. Using his framework and style as inspiration, they drew from the knowledge they had gained from the readings, films, and class discussions to tell their own stories about a future world in which mind uploading is possible and about its potential ramifications.

Rather than assessing students' creative work, I assessed their critical reflections on the writing process. Their reflections were required to address the following questions:

- 1. What specific idea about mind uploading did you choose to explore in your story?
- 2. Pointing to creative details in your story, how did you explore the idea? (e.g., Was it looked at from different perspectives? Did you analyze specific aspects or contexts of the idea?)

3. How did the writing process change your thinking about this topic, and how did it affect your understanding of digital immortality and/ or its implications?

Students who successfully achieved the learning outcomes of the assignment (67%; 12/18) were those who strongly engaged ideas from the course content by, for instance, referencing a specific text and/or film and who developed new insights or a more complete understanding about digital immortality and its implications. Some students engaged the course content vaguely or struggled with metacognitive awareness by reiterating discussion points from class with no new insights (33%; n = 6/18).

One intriguing outcome was how drastically student perceptions of the technology changed after writing their stories. During initial class discussions, many students were optimistic about the benefits of uploading: it would solve all of society's problems—homelessness, overpopulation, food scarcity, or climate change—and would provide an appealing escape from death as well as opportunity to expand the range of human experiences.

However, in their critical reflections, most indicated that they felt conflicted and even hesitant about uploading, as reflected in three notable examples.

(1) In the "The Choice," the student explored the theme of reduced human suffering in the digital world, which he saw as the primary driver for people to leave their families and friends in the physical world and join the digital, but the student also explored how a perfect world would redefine happiness and ultimately lead to a less meaningful life:

It's easy to think of the simulated world as a utopia with infinite possibilities. However, as I explored in the story, happiness might be much more difficult to come by than one would expect. First, if the simulation removed suffering and hardship, people would have no basis for what happiness is; indeed, much of happiness comes from overcoming hardship and reaching a point of satisfaction. It would be like a drug high—perhaps it is happiness by some definition, but it's not fulfilling. How can you take an adventure if you've experienced everything already? Why fall in love if you can live a whole life with someone and still move on to the next person? While some people may be able to live successfully in the simulation, it is fair to predict that many people would struggle. Writing the creative piece made me think much more about what life in the simulated world would be like. On a surface level, the idea of a simulated world is exciting to me.

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We all have some fear of death, and a simulation would be an escape. After digging deeper, however, I don't know if it's possible to create a simulation that eliminates the problems of the real world while still allowing its inhabitants to live meaningful lives.

(2) "Second Form Citizen" examines the influence that uploading service companies would have over the lives of digital minds. In the story, uploaded minds have become fully integrated with the internet and the sole purpose of people in the physical world is to maintain the perfection of the digital world. The student connected uploading to the contemporary debate about internet privacy and protection to gain new insights about the relationship between physical and digital entities:

In the imperfect world we live in, I could see a company manipulating the constructs of digital entities in order to control them or limit their reach.... An uploaded mind with endless time and knowledge through the power of the internet would be a dream come true for many people, yet it would have the potential to be extremely destructive. Would limiting the power and scope of digital entities be justifiable?... My story reflects this [dilemma] through a work orientation for human technicians who "fix", or censor, the experience of digital entities. The physical existence is completely focused on managing the digital existence, which promises perfection. In reality, the digital experience has been manipulated and has been removed of autonomy. Thus the promise of a second life would only trap humanity in a cycle of anticipation and disappointment enforced by the structures and organizational capacity of an industry.

(3) The story "Deletion Day" confronts the reality that computers, though powerful in many ways, have finite storage space. As a result, those who have chosen to upload their minds have to periodically undergo memory deletion to make room for infinite new memories. This student's critical thinking about a technical issue led her to raise a novel question that had not been considered before in the class: What are the social and psychological consequences of memory deletion?:

Being acutely aware of the long-term negative consequences of immortality (meaninglessness of life, loss of motivation, etc.), I had always viewed immortality as detrimental to humanity from a purely philosophical standpoint. However, this project pushed me to explore more practical aspects of immortality such as the different forms of uploading and storage methods along with their complications, all of which I had never considered before. For example, with memory deletion mandated in the story, which memories do you choose to delete? What if you deleted a memory that was important to a loved one? What happens if someone irresponsibly commits crimes knowing he could erase those memories later? . . . There are many nuances to consider with the idea of immortality, digital or biological, and the complications discussed in lectures and assigned readings demonstrate that the utopia immortality seemingly offers ironically becomes a dystopia.

As these examples illustrate, creative writing can be transformative as a pedagogical tool by affording writers an opportunity "to examine issues from multiple viewpoints and explore their own thoughts on the problem in front of them" (Woodard 1). Many students recognized through their stories that technology could lead to unintended consequences and change what it means to be human.

THE CHALLENGES

As a molecular biologist by training, I was unfamiliar with creative writing, and assigning a project without having the skillset made me apprehensive at first. Realizing that my discomfort stemmed from a lack of familiarity with humanistic methodologies, I visited the classroom of my colleague Adam Watkins, whose background is in creative writing and literary studies. I observed how one might lead students through a close reading of a fictional text paragraph by paragraph, first observing the facts and details and then interpreting the observations to draw a conclusion, e.g., what this phrase or paragraph accomplishes or what point the author is making. I used this experience as a guide to conduct a close reading of *Einstein's Dreams* in my Immortality class. The experience also forced me to reevaluate some of the fundamental assumptions and genuine misunderstandings I had about humanistic practices, mainly that the interpretation of literature is purely subjective, when in actuality each interpretation is validated by referencing specifics from the text and the text as a whole.

Teaching outside of one's area of expertise can be daunting. It gave me confidence, as well as put my students at ease, when I acknowledged that I did not have any training in fictional writing, nor was I trying to make advanced writers out of them. I made it explicit that the goal of the assignment was

simply to expose them to creative practices and humanistic inquiry as analytical tools that can be used to examine science and technology in a critical way.

Bridging the sciences and humanities required me to step outside of my comfort zone and invest extra time to learn the tools of another discipline, but even a single assignment can offer an easy way to experiment with integrative pedagogy. Ultimately, it was a productive and fun learning experience for me and the students, and more importantly it strengthened students' understanding of the course material and enabled them to build cross-disciplinary respect.

CONCLUSION

In both our classes, creative writing proved an effective pedagogical tool for promoting transformational learning within an interdisciplinary curriculum, allowing students to gain a deeper and more nuanced understanding of course concepts and themes. Students began to see scientific concepts from humanistic perspectives while at the same time seeing humanistic forms of inquiry as a vital means of knowledge production that merges creative and critical thinking. Through the coupling of creative writing and STS pedagogies, students could fulfill Da Vinci's edict to see the art in science and the science in art, all in an effort to examine the world and the complex interconnection of things within it. That said, what proved most essential to the success of these creative projects was the self-guided, exploratory, and affectively rich forms of inquiry they afforded our students. While we primed our students in class with our own questions, the creative projects gave them a dynamic arena in which to create their own thought experiments and explore the questions that mattered most to them. Our students were not the passive recipients of these outcomes but were instead the authors of their own transformational learning. We hope that, given their new understanding of creative writing as a tool for analysis and inquiry, students will continue to employ creative forms in a lifelong effort to see their world from new perspectives and to make sense of their place in it.

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The authors may be contacted at

aewatkin@purdue.edu.

Humanities-Driven STEM— Using History as a Foundation for STEM Education in Honors

JOHN CARRELL, HANNAH KEATY, AND ALIZA WONG Texas Tech University

Abstract: Humanities have traditionally played a limited role in STEM education, yet their natural connections may be used to enrich academic understanding and student experience. Authors explore their mutuality by presenting an interdisciplinary curriculum, Humanities-Driven STEM (HDSTEM). Unlike other iterations of blended disciplines, HDSTEM provides students with abilities and knowledge to go beyond the acquisition of soft skills toward humanistic, often artistic, creative problem-solving and innovative thinking. A pilot HDSTEM course offered through the first-year experience program is described. Authors outline its development, implementation, outcomes, and evaluation, positing humanities at the forefront as the impetus and lens for contextualizing STEM research and discovery. Challenges and implications for future development beyond first-year experience are presented.

Keywords: multidisciplinary practices; interdisciplinary education; teaching teams; curriculum planning; National Endowment for the Humanities

INTRODUCTION

Institutions of higher education have long recognized the benefits of a multidisciplinary approach in pedagogy, research, and curriculum. Students choose a discipline, they take most of their courses within that discipline, and they take a few courses from other disciplines. The courses outside their discipline provide the "multi" in the multidisciplinary approach. However, we posit that this type of multidisciplinary approach is flawed. While students

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get exposure to topics outside of their discipline, it is up to them to connect the dots, draw conclusions, and determine why a class or discipline outside of their focus is relevant to their proposed course of study. They may have no idea how these topics prove even remotely important to their education and ultimately useful to their chosen profession. Science, technology, engineering, and mathematics (STEM) students often remark, when taking something like an art history course, "I have to take this course to graduate." This type of comment speaks to the perceived divide between the sciences and the humanities elucidated by C. P. Snow in his 1959 Rede Lecture at the University of Cambridge, later published in expanded form as the well-known book The Two Cultures and The Scientific Revolution and a second volume, The Two Cultures: And A Second Look (Snow, 1963). The Disraeli-esque "impassable gulf" between the sciences and the humanities is a constructed one. Snow's observation that the accusation leveled by humanists against scientists as uncultured was hypocritical since very few humanists could explain the laws of thermodynamics or the relationship between mass and acceleration. Snow criticized the British emphasis and investment in humanities education in the nineteenth century as having hindered the scientific and technological prowess of the nation as compared to the more even-handed, equitable focus on both the sciences and humanities in the United States and Germany that led to their primacy in the Second World War. Snow is not wrong in his assertion, but one might argue that during the Cold War, especially with the advent of the Space Race, the United States tilted the balance heavily toward STEM fields as employment, practicality, and pragmatism began to heavily influence secondary and higher education. Snow's second book introducing the possibility of ameliorating some of the divide and breaking down the silosalong with works such as Kuhn's *The Structure of Scientific Revolutions* (1970), Brockman's The Third Culture: Beyond the Scientific Revolution (1995); and Gould's The Hedgehog, the Fox, and the Magister's Pox (2003)—allows space for an HDSTEM pedagogy. However, while philosophically scientists and humanists may agree that walls must be torn down and welcome signs posted along the borders, very little has been done to create a borderland where the arts and humanities and STEM fields might inspire and inform one another.

The challenge for higher education and honors programs/colleges is to engage STEM students more holistically by demonstrating to them explicitly why arts and humanities courses outside their discipline will fundamentally inform their identities as scientists and engineers, emphasizing their humanness in that process and confirming the role that empathy and ethics play in understanding the responsibility of both scientist and science, inventor and invention. To meet this challenge, the Texas Tech University (TTU) Honors College has developed interdisciplinary team-taught courses that use the humanities as a foundation and integrate STEM concepts and principles. This approach has been coined Humanities-Driven STEM (HDSTEM).

BACKGROUND

Before considering how STEM has been integrated within arts and humanities education with HDSTEM, we need to consider the differentiation between a multidisciplinary and an interdisciplinary approach. Multidisciplinary approaches to education are the more traditional methods used in K-12 to higher education. Disciplines are taught separately with little interaction between them (Ertas, 2011). Science classes are science classes, math classes are math classes, art classes are art classes. The general philosophy on making a well-rounded student appears to rest on the notion that if students take a set of classes that include science, math, reading, humanities, and art, they will have appropriate exposure to a variety of areas. The connections between these fields, their overlap, or even how scholars, artists, philosophers, writers, scientists, and engineers may have been inspired by one another is not central to the typical pedagogical approach in K-12 or even in higher education. In higher education especially, more focus is given to a student's major discipline (Gibbs, 2017), resulting in what many have termed the "silo effect."

Interdisciplinary approaches integrate disciplines or work in between the disciplines, removing the walls of separation. For example, the study of the production of electrical energy would cover several disciplines, all of which work together for the result of that energy production. Physics, mathematics, chemistry, and energy are needed to understand the theory and create the means for electrical energy production (Çinar, Pirasa, Uzun, & Erenler, 2016). Interdisciplinary education can be linked with similar or related disciplines within STEM, but they can also be further expanded. For example, connecting STEM approaches with arts and humanities introduced an extension beyond the theories, axioms, and theorems of the scientific fields. Approaches like STEAM (STEM with the arts), STREM (STEM with reading), STEMM (STEM with music), and STREAM (STEM with arts and reading) allow for interdisciplinary education or engagement with non-STEM disciplines by including discussion or engagement with non-STEM disciplines. All the "STEM with" approaches include arts and humanities,

and while they may offer some variety and breadth to the dissemination or communication of STEM ideas, the integration has primarily been limited to benefitting the STEM disciplines. The main purpose of the "STEM with" approach is to improve the innovative problem-solving and creativity of STEM learners (Perignat & Katz-Buonincontro, 2019) while the arts and the humanities are an elaboration technique rather than a foundation for learning and understanding content. Further, the overlapping connections are not made to back up what is distinctly taught (Sochacka, Guyotte, & Walther, 2016), leaving out the social analysis, enrichment, and advancement that the arts and humanities provide. In essence, these "STEM with" approaches have not fundamentally transformed understandings of STEM discoveries; they have not changed the ways we do STEM research, empathize with the "consumers" of innovation, nor re-negotiate the roles and responsibilities of scientists and engineers in defining what it is to better the human condition. HDSTEM proposes, by placing humanities as the driving force and context of STEM studies, to reinsert the human-human need, desire, creativity, aesthetics, play, diversion, strength, and vulnerability-back into the realm of scientific curiosity and discovery.

Interdisciplinary courses have generally been more possible in honors curricula. Often, the flexibility of honors colleges has allowed for more creative and innovative approaches to fulfill core curriculum and major requirements. Mullins (2012) details the interdisciplinary efforts at the University of Alabama-Birmingham (UAB) starting in 1983. The UAB Honors Program has implemented annual interdisciplinary courses that blend courses within and between disciplines, multiple STEM disciplines connected to each other and to the arts and humanities while meeting academic core requirements for UAB graduates (Mullins, 2012). Academic core requirements provide a good guideline for implementation of interdisciplinary courses, particularly those that broaden the focus of learning and that privilege the education of well-rounded students who can operate outside their major. This well-roundedness and breadth of reading are key to a liberal arts education but also play a role in the preparedness of students who seek to enter the workforce or who choose to pursue continued education.

In an ever-changing world, students must be able to navigate, explain, and communicate the myriad situations they will encounter after they graduate. Cundall (2012) discusses an interdisciplinary course at Arkansas State University that provides this more comprehensive approach to the current state of science by using humor as a pedagogical and methodological tool. Humor and laughter, universal emotions and reactions, can provide multiple perspectives that cross the disciplinary lines between philosophy, psychology, biology, neuroscience, medical science, literary studies, and sociology. This interconnectedness through satire, irony, and humor provides a means to engage and develop open-minded, multi-skilled students and prepares them with an understanding of disciplinary depth and interconnections (Cundall, 2012). Brock (2008) also discusses an interdisciplinary course, The Sun: Earthly and Heavenly Reflections, which uses the sun as the central theme and primary focus. This Eastern Kentucky University course attempts to humanize the sciences by blending them with English, history, philosophy, and religion, positing that science literacy can be gained in a humanities context (Brock, 2008). A common, perhaps unorthodox, theme like humor or the sun provides many entry points into discussing and engaging a variety of fields and disciplines.

Blended disciplines, or subfields, can provide an arena for an innovative pedagogy as well. Biochemistry, the blend between biology and chemistry, allowed Williams (2012) and his team to introduce an interdisciplinary course at Western Kentucky University that is project-based and tasks biology and chemistry students with examining a disease from different perspectives: clinical, biological, chemical, historical, and societal. Having to engage with multiple and multi-layered interventions to understanding disease challenges pre-health professional students in the course to make connections with real-world problems in the health industry (Williams, 2012). While not explicitly labeled a biochemistry or microbiology course, a course titled "The Coming Plague," an honors course at the University of North Dakota, brings together historical and cultural perspectives on epidemiology while detailing scientific advancements to combat the spread of disease (Carmichael, 2008).

Beyond meeting core requirements, discussing common themes, and detailing the possible intersections of seemingly unrelated fields, interdisciplinary courses can also be developed as writing intensive or communication literacy courses, thus providing the all-important teamwork and the interpersonal and communication skills so valued by graduate and professional schools and employers. Charpie and Shea (2006) detail a syllabus for a course titled "Science and Writing" at Southern Connecticut State University where students critically analyze language and writing about the sciences. Courses like these offer students the opportunity to experiment with different tones and timbres of technical writing, scientific writing, popular/digital/social media writing, and academic writing for a broader audience. Along the same

lines, Wiegant, Boonstra, Peeters, and Scager (2012) detail team-based learning that is centered on complex writing assignments.

DEVELOPMENT AND IMPLEMENTATION OF AN HDSTEM PROGRAM

To increase the connectedness of interdisciplinary learning, the TTU Honors College piloted the HDSTEM program with its first-year students in 2017. Interdisciplinary teaching and courses are a mainstay of the TTU honors curriculum, which has offered previous and current Integrated Science courses that expose non-majors to the sciences and illustrate the connections between disciplines (Wilhelm, 2008). HDSTEM uses the arts and humanities as the driving force, language, and lens in the classroom while homing in on the role of STEM advancement and implications in different historical moments. By making arts and humanities the foundation of HDSTEM courses, students (both STEM and non-STEM) are taught how STEM is not a set of silo-ed, non-human, or de-humanized fields but rather is driven by a need for deeper understanding of the human condition in order to improve or benefit or discover the world in which we live. With HDSTEM, students must not only think critically about what has driven history forward (or backward as the case may be) and how scientists/engineers and their works have contributed to that process of thesis/antithesis/synthesis, but they are also encouraged to consider their education beyond career training in order to contextualize the links between disciplines and the eventual breakdown of disciplinary barriers. This agenda speaks directly to the honors college's dedication to a modern liberal arts approach that brings together the classic trivium and quadrivium even as it expands to include the hard sciences and new fields in technology, business, engineering, health, culture, and politics.

In fall 2017, the honors college piloted the first course for the HDSTEM program—War, Machine, Culture, and Society: History and Engineering in the Second World War—within the honors First-Year Experience (FYE) program. This course has been offered in three fall terms, 2017–2019, always team-taught by a historian and an engineer. The course explores how history, literature, philosophy, and cultural studies can drive the teaching and framing of engineering concepts, providing a structured approach for teaching scientific and engineering concepts in a humanities-based context. The Second World War pushed humans to their extremes, from their most courageous and hopeful to their most destructive and hateful. This historical

backdrop, juxtaposed with the developmental processes of transitioning from high school to university, provided an ideal framework in which to assess students as they negotiated educational identities and empathy. Questions that they considered included: How do we negotiate progress, technological advancement, scientific knowledge, and the rhetoric of propaganda with ethical questions of compassion, tolerance, courage, and integrity? How do we understand who we are as human beings, what our responsibilities are to one another, and how connected and disconnected we are from each other?

During the semester, students learned about the "total war approach" in which home front and war front became interchangeable. Advances in technology and warfare illustrated how engineering can alter the physical and chemical landscape. Students learned how society grappled with difficult engineering decisions, such as the ethics of applying knowledge gained from unethical, immoral beliefs and practices or considering the impact of scientific/engineering discoveries applied in unconventional or unintended ways. In the first third of the course, students examined the combined historical, environmental, and technological preconditions of WWII, including contextualizing WWI and the interwar period; they examined (1) the design and manufacture of war technologies; (2) changes to soil, air, and landscape due to gas warfare, entrenchment, and the ecological price of a war of attrition; (3) the U.S. context of the Great Depression and American isolationism; and (4) the European context of ultranationalism. Next, students explored the ways that fascist and Nazi regimes employed new technologies and inventions for mass dissemination of propaganda and populist messaging as well as the methods by which these parties manipulated "scientific" knowledge to their own ends of racism, nativism, eugenics, and ultimately genocide. Students also discussed the socioeconomic and political contexts and how these contexts influenced the engineering problems that resulted such as the conversion of factories originally designed to serve basic societal needs into those that assembled weapons and war materials. In the final section of the course, students studied the aftermath of the war, including the engineering of the military-industrial complex in the U.S. and the many technical, technological, and environmental problems associated with rebuilding Europe. Students ended the course by linking these engineering problems with the socioeconomic, cultural, ecological, and political consequences of WWII, including the consumer boom, suburbanization, permanent militarization in the U.S., the Holocaust, Cold War divides, the end of imperialism, and economic consolidation in Europe.

RESULTS AND DISCUSSION

In the three fall semesters that War, Machine, Culture, and Society: History and Engineering in the Second World War has been taught, the breakdown of declared majors has included 47% science, 40% engineering, and 13% arts and humanities. The racial/ethnic and gender diversity of the class has been impressive as 46.7% of the students have included underrepresented minorities or women. To date, 70 students have enrolled and successfully completed the course.

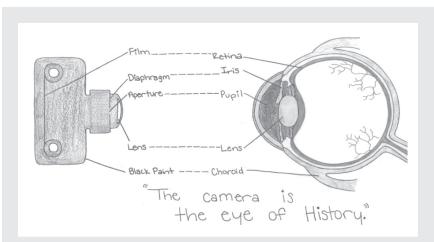
The class has encouraged students to question how they approach their education and asks them to consider the interconnectedness between STEM and the humanities by challenging conventional discipline-based learning. An analysis of the course evaluations, student interviews, and surveys have shown an overwhelmingly positive reaction. On course evaluations, over 96% of students "strongly agreed" that the course was a valuable learning experience, and the other 4% "agreed." A typical comment pulled from the course evaluations mentioned the impact of understanding how history and the humanities can be connected to STEM areas and how the humanities often define the human need for scientific and technological advancement.

While many factors can skew course evaluations, from expected grades to instructor preference, the validity of the result that the course was a valuable experience is bolstered by voluntary surveys and interviews. One interview participant stated, "I didn't think there were any connections between humanities and engineering, those are two different things . . . those two subjects, you wouldn't think they co-mingle, but they actually do in how you build it." Another interviewee remarked, "[HDSTEM] tries to show the science wouldn't exist without the history or the history wouldn't be this way if the science wasn't there to back it up . . . we're encouraged to think like an engineer, but also as a historian."

Work artifacts in the form of reflective journals, interdisciplinary assignments, and course projects have shown students recognizing the connection between the humanities and STEM. Along with this recognition, students were creative in crossing disciplinary lines. When asked to reflect on class discussion, readings, and assignments, some STEM students chose to communicate their reactions, digestion of knowledge, and intellectual ponderings through artwork, poems, and personal statements within the journal entries. Figure 1 depicts the journal entry for an engineering student after a discussion of photography and propaganda used during WWII. Figure 2 was created by another engineering student and depicts a parody of the propaganda used by Mussolini. Non-STEM students discussed the formulation of Lanchester's Square Law and how it is used in casualty estimations based on the size and lethality of opposing forces; they were thus engaging with the idea of mathematical equations, statistics, and calculations in real military decisions that ultimately decided, for instance, the fate of hundreds of thousands of soldiers during WWII, who, like them, were only eighteen or nineteen years old. The initial results from students in this HDSTEM course have shown a disruption in the discipline-based thinking to which students were exposed in high school and evidence a broadening of their understanding of how connected disciplines are or could be.

The instructors of the course have also experienced a fundamental reconsideration of their pedagogical approach, teaching philosophy, and even worldview. The instructors worked together to build and develop the curriculum, and they interacted with each other during lectures, bringing different viewpoints on science and engineering and on historical contexts. Building lesson plans together and interacting both inside and outside of the classroom have changed the instructors' perspectives on their teaching approaches in their own fields. The engineering faculty member has noted more cognizance of how engineering decisions affect people and society, and he has deliberately included a greater humanities emphasis in his engineering courses. The history faculty member has included some systematic approaches and technical information in her teaching, even using problem-solving and improvement

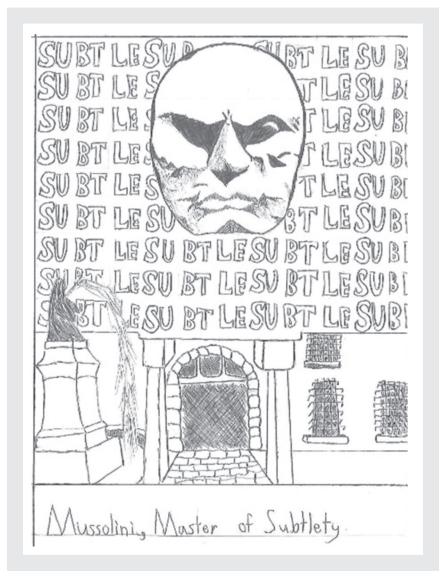
FIGURE 1. DEPICTION OF THE SIMILARITIES OF THE HUMAN EYE AND A CAMERA



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methods like the DMAIC (Define, Measure, Analyze, Implement, and Control) exercise to help her history students better understand how to deconstruct, analyze, and reconstruct historical moments. The different viewpoints have given the faculty firsthand knowledge on disciplines different from their own. The teaching collaboration has also led to educational research collaboration. An NEH Connections Planning grant to expand the HDSTEM program at Texas Tech has been awarded based on this work.

FIGURE 2. STUDENT PARODY OF PROPAGANDA USED BY MUSSOLINI



BEST PRACTICES

While the development and implementation of the HDSTEM program and the class War, Machine, Culture, and Society: History and Engineering in the Second World War were tailored specifically to the TTU Honors College, the initial work suggests some standard practices that can be used for setup and implementation in other programs. These practices include interdisciplinary collaboration, topic selection, team-teaching, and bookend implementation.

Interdisciplinary team-teaching and collaboration are essential for the HDSTEM approach, in which STEM is defined in the context of the arts and humanities with elaboration provided by a STEM field. This structure breaks down the typical silos that exist between arts and humanities and STEM, and it returns the conversation to pre-Cold War (and pre-Industrial Revolution) communication between different fields. The TTU Honors College is well-positioned to provide this type of collaboration because of its commitment to twenty-first-century liberal arts and to the blend of disciplines among honors college faculty. Colleges or universities that do not feature a multidisciplinary honors college can still feature collaboration by having faculty participate in college activities falling outside their discipline. For example, a faculty research club that promotes research around campus is an excellent way to learn about what is going on outside of your discipline by meeting and conversing with other faculty. Attending new faculty orientation is another possible conduit for finding teaching partners; college-sponsored events like this provide an avenue for meeting faculty outside of your discipline. Many universities have humanities centers or STEM groups that support public lectures, workshops, and/or panel discussions. Beyond sponsored activities, a direct approach is reaching out to other departments with course ideas. The key is to establish relationships outside of your discipline.

Once you have found potential collaborators, finding ideas or concepts for courses can help foment or cement the partnership. The concept of a course may well be the driver in building an interrelationship. In development of the course concept, the projected student enrollment is an important consideration. For many students, an interdisciplinary course may be a novel idea, so to ensure successful class enrollment the topic needs to accomplish multiple goals: draw students in; speak to utility and practicality while also challenging those conceptions; and open doors and windows into other approaches, ideas, and concepts. The Second World War is a popular and engaging topic,

so it made sense to use it as the foundation for War, Machine, Culture, and Society: History and Engineering in the Second World War. Conflicts, both military and otherwise, are promising course topics that include the man and machine relationship; engineering and scientific development; and societal conflict, tension, and stress. Other popular and trending topics include, for instance, artificial intelligence (AI); building an HDSTEM course with a philosopher and computer scientist could reach into themes such as the reason for being, the meaning of existence, freedom of thought, scientific ethics, technological relationships, and intelligent coding. AI is a topic that was covered in a pilot HDSTEM course in the TTU Honors College called "Science Fiction and Science/Technology: The Power of Science Fiction and Science/ Technology: History, Literature, Film, Television, Sequential Art." Taught by an engineer and a historian of popular culture, this course engaged students in the relationships of art and literature with science and technology. Engaging topics like this have been a popular avenue for honors interdisciplinary courses (Andersen & Thorgaard, 2014; Brock, 2008; Cundall, 2012; Lòpez-Chávez & Shepherd, 2010)

The HDSTEM courses that have been implemented by the TTU Honors College have been a part of an FYE program that engages first-year students, ensures their successful transition to university life, and encourages them to think more openly and broadly about the purpose and meaning of their education. The honors college is working to bookend the FYE experience with HDSTEM courses in Summit courses, typically taken in the second semester of the junior or senior year, thus establishing a line of open thinking for students in their first year and carrying it throughout their undergraduate experience. Based on their FYE experience, students should understand the privilege of taking courses outside their disciplines and how it can be beneficial to their education and career goals. By bookending that initial introduction with the Summit experience in their final year, students will be able to reflect on their HDSTEM experience with more maturity and experience.

As with the FYE courses, Summit courses blend students from every discipline at the university, and an interdisciplinary topic of the course would allow advanced and engaged collaborative work. In their final semesters, students present mastery of the content in their discipline and can engage others with their knowledge and expertise. Moreover, the students can establish the links of the arts and humanities with STEM on their own and create diverse relationships with their classmates. By focusing on team-based projects, such as writing a novella or short story, creating a web app, making a robot, creating a piece of art, performing a concert or play, or communicating a complex scientific topic to a lay audience, the HDSTEM Summit courses would culminate in the marriage of disciplines and the value of each student's talent, knowledge, and skills. The bookend approach of HDSTEM would be a definite benefit as it would not only establish a philosophy as students begin their college education but would allow the practice and engagement of that philosophy at the end of their undergraduate careers.

The interdisciplinary collaborations, teaching, and set up for HDSTEM benefit the typically siloed, discipline-based educational approach by explicitly showing students the links and similarities between STEM and the arts and humanities, but we acknowledge that there may be major institutional challenges to the implementation of an HDSTEM program. First is the team-teaching issue, where the credit, compensation, and scheduling can be a deterrent. One problem is that the course must fit into two schedules, but this can be a minor issue depending on the teaching load and flexibility of the course's instructors. A more complicated issue is teaching credit and compensation, particularly in an honors college where both instructors are involved in the planning and lecturing for every class. Our administration has given just 50% credit to each instructor, which does not adequately acknowledge the fact that this type of engaged interdisciplinary teaching requires that each faculty member give 100% of their time, energy, thought, and wisdom. With credit comes compensation. Salaried instructors in the TTU Honors College receive assistance from the dean and provost, so the faculty can receive full credit for teaching a co-taught course, but outside of the honors college, compensation for a team-taught course is an issue because (1) the other colleges from which these faculty originate might not agree that this is a 100% effort for both instructors; (2) the system by which the university records the credit hours taught by each instructor may not allow for two faculty to receive full credit for the same course (this appears to be trivial but is a major hindrance at TTU); and (3) limited funds are available for this type of innovative approach. Additional teaching funds have been made available for the pilot HDSTEM courses in the honors college, but these funds are not permanent additions, so there is a problem with making team-taught HDSTEM sustainable. The TTU Honors College has been fortunate to obtain support from an NEH Connections Planning grant for course development stipends, and further funding is being sought through agencies such as the Department of Education and the National Science Foundation. However, the ideal is for the institution itself to support team-taught courses.

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The resources of TTU and the honors college are also beneficial for instituting HDSTEM curriculum. TTU is a Carnegie-classified R1 institution and has also been recently classified as a Hispanic-Serving Institution by the Department of Education. The research emphasis, diversity, and size (1,500 students) of the honors college allow it to provide resources in the form of available instructors, funding, and students to test and implement the HDSTEM curriculum. Smaller universities and institutions may not have such resources and may be limited in either STEM faculty or arts and humanities faculty, presenting a challenge in developing and implementing team-taught HDSTEM courses. An attempt at teaching an HDSTEM course as an individual instructor could be made, but this would involve finding guest lecturers who can explain STEM or humanities concepts and interact with the lead instructor. Technology could also play a role in this interaction: live video lectures could alleviate some travel and scheduling problems with guest lecturers.

Overall, the implemented HDSTEM courses within the TTU Honors College have provided some key insights into how these courses should be carried out. Establishing the interdisciplinary relationship in the team-teaching approach and covering an engaging topic are key to the success of HDSTEM courses. Using the institution's resources and administrative capabilities to support the team-teaching approach presents challenges, but developing an understanding of the important effects of HDSTEM on students can outweigh these obstacles.

CONCLUSION

In the last decades of the twentieth century and even in these first decades of the twenty-first, disciplines in higher education have been siloed. While STEM faculty may be encouraged to collaborate or humanities centers may host discussions across the humanities, cross-collaborations between arts, humanities, and STEM faculty have been limited and rarely equal in their dynamism and perceived impact. However, the digital age and the complexity of the global workplace have forced institutions of higher education to reconsider the compartmentalization of the different disciplines. Multidisciplinary and interdisciplinary research efforts have become commonplace for scientific advancement, leading to educational approaches that have broken down barriers in the sciences, mathematics, and engineering for students. Inclusion of arts and humanities has also been explored with STEAM education although, for the most part, this inclusion has been for the benefit of STEM by increasing innovative design and problem-solving. The TTU Honors College has proposed and implemented a change to this approach with HDSTEM. HDSTEM puts the humanities at the forefront as the impetus and lens for contextualizing STEM research and discovery. HDSTEM connects STEM to the social analysis, enrichment, and advancement displayed in the arts and humanities. The pilot course, War, Machine, Culture, and Society: History and Engineering in the Second World War, has shown the value of the HDSTEM approach and has led to further development of interdisciplinary team-taught courses like Science Fiction and Science/Technology: The Power of Science Fiction and Science/Technology: History, Literature, Film, Television, Sequential Art. The initial implementation of HDSTEM has shown an enrichment in the education of students by making authentic connections of the arts and humanities to STEM. The instructors have also benefitted by learning different course preparation and lecturing methods. Despite challenges with team-teaching credit and compensation, administrative and teaching flexibility along with possible educational research avenues can alleviate these issues. The changing focus of HDSTEM, which puts scientific and engineering discovery in the context of the humanities, provides an overall enriching educational experience for students that can be carried through their academic careers and life.

ACKNOWLEDGMENT

The author would like to thank the NEH Connections planning grant AKA-265769-19 for financial support.

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The author may be contacted at

John.Carrell@ttu.edu.

Best Practices in Honors Pedagogy: Teaching Innovation and Community Engagement through Design Thinking

Beth H. Chaney, Tim W. Christensen, Alleah Crawford, Katherine Ford, W. Wayne Godwin, Gerald Weckesser, Todd Fraley, and Phoenix Little

East Carolina University

Abstract: Honors colleges aim to provide unique first-year experiences that promote life skills and emphasize process over product in an interdisciplinary setting that builds community. A two-semester, five-semester-hour course sequence with colloquia tackles these challenges by introducing an entrepreneurial mindset that pushes students toward innovative understanding and building of community. The first iteration includes an introduction to design thinking; identification of wicked problems; collection of data using immersion experiences, interviews, and literature review; and experiments (n = 35) in project-based entrepreneurial methodologies using Lean LaunchPad. The second iteration involves assessment, applied qualitative analysis, out-of-class learning, and peer mentoring. Results provide a framework for developing innovative thinking, an entrepreneurial mindset, and community engagement among first-year students—a design that, the authors conclude, has not only developed in students specific, non-academic skills (such as resiliency and creative self-confidence) but effectively doubled the size (as mandated by the university) of the first-year class. Implications for future iterations are considered, calling for strengthening administrative support, increasing academic/community partnership, and sustaining funding beyond the first year.

Keywords: first-year experience programs; entrepreneurial mindset; wicked problems; human-centered design; East Carolina University Honors College

INTRODUCTION

The first-year experience in honors colleges has a unique opportunity to L provide students with challenges that build life skills and serve students for years rather than the traditional, discipline-based content in students' majors. Whereas courses in the students' majors aim to teach students specific knowledge, first-year experiences in honors colleges instead provide interdisciplinary experiences. In addition, honors colleges welcome the challenge to build a cohort, developing closeness among the class members. The increase in first-year experiences for college students has been supported by a well-established body of research conducted by the National Resource Center for the First-Year Experience and Students in Transition (2019), which provides theoretical foundations and practical guidelines for creating and implementing best practices related to first-year experiences. However, that research has provided limited understanding of first-year experiences for honors students, particularly within a national context (Vander Zee et al., 2016). Furthermore, according to Vander Zee et al. (2016), the critical piece for working within current curricular contexts to design first-year experiences for honors students is coursework "that does not simply enhance but fundamentally directs and grounds the academic and social transition processes faced by first-year honors students" (p. 136). Accordingly, many honors colleges aim to deliver a curriculum based on process rather than product. The East Carolina University (ECU) Honors College has tackled these challenges and instilled an entrepreneurial mindset that will push students toward an innovative approach to their communities while simultaneously doubling the size of the first-year class as was mandated by the university.

In a two-semester, five-semester-hour course sequence, the faculty of the ECU Honors College used human-centered design (IDEO.org, 2015) to push students toward innovative thinking as they consider and achieve their life goals. Students then use these skills to identify "wicked problems" (Rittel & Webber, 1973) and prototype solutions. A wicked problem is a social or cultural problem that is difficult to solve, such as poverty, lack of healthcare access, or the current opioid epidemic (Rittel & Webber, 1973). These problems can be approached through the process of design, which emphasizes empathy and prototyping of ideas to solve the problems. This novel approach to the freshman experience is in its third iteration. Having learned many lessons, we hope to achieve a threefold goal: to provide other honors colleges with a framework for developing a student experience that encourages innovative thinking, an entrepreneurial mindset, and community engagement; to provide lessons learned from administrative, faculty, and student perspectives; and to share the key resources needed.

Background

East Carolina University

East Carolina University is located in rural eastern North Carolina and offers 104 bachelor's degree programs, 73 master's programs, and 18 doctoral degree programs, along with a variety of other certificate and advanced programs. In the fall of 2017, our enrollment was 29,131, including 21,225 fulltime students (19,104 undergraduate and 1,586 graduate, 322 students in the School of Medicine, and 213 in the School of Dental Medicine). Twenty-four percent of these students were enrolled via distance education only. Ethnic minorities make up 26% of the undergraduate students, 21% of the graduate students, 29% of the medical students, and 35% of the dental students. Fifteen percent of undergraduates are 25 or older. Eighty-eight percent of on-campus students are residents of North Carolina. The ECU student-faculty ratio is 18:1, with approximately 1800 faculty, 90% of whom are full-time.

The Honors College at East Carolina University

The mission of the East Carolina University Honors College is to prepare tomorrow's leaders through the recruitment, engagement, and retention of exceptionally talented students of character in a diverse intellectual livinglearning community and to challenge them to attain high levels of academic achievement. The ECU Honors College aligns with the National Collegiate Honors Council (NCHC) definition of the honors curriculum: "Honors experiences include a distinctive learner-directed environment and philosophy, provide opportunities that are appropriately tailored to fit the institution's culture and mission, and frequently occur within a close community of students and faculty" (NCHC). ECU transitioned from a decentralized honors program to a college led by an academic dean in 2010, a move that benefited from the guidance provided by the NCHC. The ECU Honors College has a rich history of providing innovative programs for honors students. Since its inception in the mid-1960s, the honors program has attracted highly motivated and curious students and provided them, under the guidance of engaged faculty, with unique learning opportunities and experiences fostering intellectual growth, personal development, and a strong and abiding commitment to the ECU community.

CHANEY, CHRISTENSEN, CRAWFORD, FORD, GODWIN, WECKESSER, FRALEY, AND LITTLE

For its first seven years, the ECU Honors College admitted 100 freshmen each fall. Starting with the class entering in fall 2017, the honors college now enrolls approximately 200 first-year students annually; current enrollment is approximately 600 students. The college admits only first-year students who are invited to apply after they are admitted to ECU. All students receive scholarship support, which determines their honors college academic requirements. One of these requirements is that they live and participate in an Honors Living and Learning Community (LLC) their first year. The honors college curriculum includes honors seminars, departmental honors sections, colloquia, and a 6-hour signature honors project that must be completed with the oversight of a faculty mentor. The colloquia include the 5-credit-hour, 2-course, interdisciplinary first-year seminar (FYS) series required for all entering freshman regardless of their majors. The honors college works with faculty members across campus to deliver this curriculum.

The Genesis of the Honors 2000–3000 Freshman Experience

The initial curriculum involved a series of colloquia (HNRS 2000, 3000, 4000) that were taken in sequential academic years. In the fall of their first-year, students took a 2-credit-hour course that focused on leadership and service and was largely lecture-based with some outside service project requirements. In their second-year, students were divided, as much as possible, into major-specific cohorts. The ECU Honors College recruited instructors with expertise that aligned with these majors, and they designed research experiences to teach students the basics of research methodologies within their areas. Over the course of this 3-credit class, depending on the instructor, students would work individually or in teams on sample research projects. The course culminated in a large symposium where students from all sections presented their work. In their third year, a 1-credit-hour course introduced students to the importance of philanthropy and initiated the Senior Honors project process. Students were required to identify a mentor and develop a proposal for their senior capstone project, which was a creative or thesis-based activity that required completion of 6 credit hours of independent research in their major.

As an initial curriculum, this series was an important and effective starting point for designing the honors experience and was based on best practices as outlined by NCHC. Members of the ECU Honors College leadership and interested faculty performed informal interviews and periodic surveys to understand the students' perspectives on their curricular experience. This feedback identified several areas of weakness that we sought to address. Students consistently commented that leadership and service pedagogy in the first-year colloquium was ineffective because it did not involve real situations and challenges. The second-year colloquia seemed to many students to be a "canned" research project that was not relevant to what they wanted to do. Lastly, the third-year class came too late to be effective since students had already planned for their senior honors projects. In addition to all the course-specific feedback, many students regretted not forming longer-lasting relationships with their honors peers from other majors, whom they met for one semester in a small section and then lost touch.

The discipline-specific nature of the second-year colloquium was identified early as an area for possible improvement. Attempts were made to create interdisciplinary faculty teams in which individual faculty members still developed and delivered their own content but were charged with integrating interdisciplinary concepts they gleaned from faculty members teaching the other sections. While this attempt was a shift in the right direction, differences between sections fostered discontent among the students.

Several additional themes emerged from the perceived deficiencies in the inaugural curriculum; these centered on the "relevance" and "effectiveness" of the curricula for students. Engaged faculty saw a need for improvement: the existing curriculum reinforced boundaries between disciplines rather than fostering an understanding of interdisciplinary approaches to research and creative activities. Faculty also noted that there had been a consistent decrease in the non-academic skills of students when it came to grit, resiliency, and creative self-confidence—a trend that has been noted elsewhere (Wilson, 2015).

Leadership and service were core topics we wanted to move forward. In addition, we wanted to maintain group work as a means to create cohesive student cohorts. We moved from a mostly theoretical understanding of leadership to a more functional definition, where the students had the opportunity to develop leadership skills. Service needed to move from a dictated activity to one driven by student interests. Learning research methods should not duplicate what students did in their majors but expose them to the varied ways research is done across fields. When discussing how to restructure the student experience, we identified design thinking as a framework that could be used to affect not only leadership and service but also non-academic skills such as grit, resiliency, and creative self-confidence.

One of the major goals of the curricular change was to foster student use of interdisciplinary methodologies. To this end, the faculty team should represent diverse backgrounds, expertise, and working styles and should serve as an ideal for the student teams they mirrored. Faculty who had already demonstrated a keen interest in honors pedagogy were recruited from different disciplines. The personnel costs associated with this change were supported in the operating budget provided through the ECU Office of Academic Affairs. The honors college provided support directly to the departments of each member of the faculty team, ensuring that they could offset the costs associated with sharing a faculty member for a minimum of one year. Lapsed salary was used in other instances to cover additional costs such as for graduate assistants.

The instructors selected were widely respected among honors students as passionate and engaged. Faculty needed to be willing to take risks, demonstrate flexibility, embrace interdisciplinary approaches, and work well in teams. The inaugural faculty team was charged with designing the new curriculum a year in advance and received supplemental summer pay to concentrate on the effort. Like the students, they used human-centered design principles (IDEO. org, 2015) in understanding the scope of the problems with the previous curriculum and in identifying possible solutions, which included incorporating a solutions-based process involving ongoing feedback, reflection, and idea iteration. Faculty collected student feedback, reflected on how to address the issues, and implemented ideas for the iteration process. As faculty leave for other opportunities, new faculty are carefully vetted to ensure that they will integrate well into the mission of the team: creating an evolving learning environment for students to meet their needs while also developing leadership skills, community engagement, service involvement, and non-academic skills for their ultimate success. Faculty receive supplemental pay yearly to revise and update the course and bring new members up to speed.

As seen in Figure 1, students take HNRS 2000–3000 in their first year. Some students choose to continue their project into their second year and enroll in HNRS 4500/4550. They use these credit hours and their project as their "Signature Honors Project." Colors (not shown here) connect resources with phases of the course.

First Iteration

The first iteration of the revised colloquia series was implemented during the 2017–18 academic year. Honors college freshmen were required to enroll, and with approximately 200 students in the inaugural cohort, faculty developed five separate sections for the course series (HNRS 2000/3000), in which students were introduced to design thinking using *Designing Your Life* (Burnett & Evans, 2016) as a guide. Interdisciplinary groups of students then spent approximately one-third of the semester reading this book, using the exercises to understand design thinking, and applying it to their own lives as an introduction to a new way of thinking, a challenge to their preconceived

FIGURE 1.	DIAGRAM OF THE HONORS CURRICULAR SEQUENCE,
	Resources Used, and Phases

	Course	Resource		Phase		Format
1	2000	Designing Your Life		Self-Audit Identify "Wicked Problems"		Separate Sections/ Separate Meetings
		Human- Centered Design		Identify and Evaluate Solutions		
Semester				Formation of Large Teams		
2	3000	Lean Launch Pad		Lean Launch Pad		Separate Sections/ Meeting
				Prototyping		Together
				Go / No Go		
3	4500*	Lean Launch Pad/Self-		Implement		Independent
4	4550*	Developed Resources		Solution		Studies
*Only some	e students choos	se to move forward	1.			

notion of what they should do and study, and a way for the teams to get to know one another. Students leveraged proven design thinking principles, used by companies such as Apple and IBM, to reframe questions about their own life for the purpose of finding more meaning, creating a productive experience, and developing a different mindset for approaching life decisions (Burnett & Evans, 2016).

The interdisciplinary teams then used human-centered design (IDEO. org, 2015) to tackle wicked problems that they identified in the world around them. Thirty-five projects were produced in the five sections of the Honors 2000 class. The projects required students to engage in a series of data collection techniques to better understand the identified problem and needs of the affected communities, including immersion experiences, key informant interviews, and research on secondary data in the peer-reviewed literature.

Immersion Experience

Students were required to identify an immersion experience to gain a deeper understanding of the circumstances and foundational needs of the people who would be engaged in the strategies or using the products they were to design. To build empathy for the wicked problems and for the people affected by these problems, students were required to immerse themselves in a situation in order to fully understand what they were trying to create. For example, students who were tackling sleep deprivation among college students focused on the sleep patterns of a specific sample of students in order to understand how lack of sleep could affect their daily functioning during an entire week, and students addressing alcohol use and misuse among young adults attended an Alcoholics Anonymous meeting. These experiences were key to grasping the full scope of the issues that students wanted to tackle.

Interviews

Students were required to conduct at least ten key informant interviews with stakeholders about their identified projects. The interviews provided valuable information on the issue being addressed as well as the viability of the ideas and solutions posed by the student teams. The interviews allowed students to better understand the local conditions related to their project topic and ensured that students were engaged with key people in the community who had insights to propel or pivot their ideas.

Secondary Data Research

Student teams conducted secondary research to examine what strategies have been implemented to address their identified issues, what has worked and what has not worked, and what evidence-based practices of community engagement existed in their topic area. Students used this research to help inform their ideas for prototyping and to assess how best to measure the impact of the solutions posed by student teams.

The projects conducted in HNRS 2000 were included in a competition of poster presentations to determine which ideas should move forward into the Honors 3000 class. New interdisciplinary teams then coalesced around the fifteen top projects. These teams used Lean LaunchPad[®] (Blank, 2010) methodologies to investigate the issues addressed by the project and develop minimal viable products for testing. Through this process, students were exposed to the relentlessly direct feedback method (Byers et al., 2016) from instructors about their projects and paths forward. Every team experienced failure and had to pivot toward new strategies. Students experienced the pain of real learning as they struggled to work effectively in diverse teams, dealt with conflicting information from stakeholders, abandoned favorite solutions, and laid bare their learning process in front of the entire group of students and faculty.

While most students ended their work on the project at the end of this series of courses, nearly 20% of the initial students chose to continue to the implementation phase of their idea, which became their required Signature Honors Projects (SHP) in HNRS 4500 and 4550. All students complete six credit hours in support of these projects, which usually take the form of research/creative activities. The student teams worked under the supervision of an Honors Faculty Fellow to pursue their independent projects formulated during their Honors 2000/3000 experience.

Second Iteration

For the second iteration of the five-credit-hour series, the interdisciplinary faculty team assessed the student feedback data, re-analyzed applied methods for meeting the course objectives, and created strategies to streamline the learning process from the first-semester course (2 credit hours) to the second (3 credit hours). They made the following changes:

• introducing methods for conducting qualitative, face-to-face interviews earlier in the course series, CHANEY, CHRISTENSEN, CRAWFORD, FORD, GODWIN, WECKESSER, FRALEY, AND LITTLE

- incorporating required out-of-class learning activities, such as workshops on improving interviewing skills,
- mandating student participation in at least 3 one-on-one faculty meetings throughout the second course,
- involving honors students from the first iteration (HNRS 4500/4550 students) to help guide/mentor current students through the course process, and
- collecting pre/post survey data on identified student competencies in order to evaluate the overall effectiveness of the learning experience for the students.

Interviews

It became clear after the first iteration that students needed to be introduced to skills for conducting face-to-face interviews at an earlier stage in the series; specifically, students needed information on how to best use interview cards to document the qualitative data from the interviews. The interview cards were developed to capture the purpose of the interview (e.g., discovery/ exploratory, prototyping, or iteration/hypothesis development), the interview questions used, and the overall interview results, including aggregated themes of what students learned from conducting the interview. Additionally, faculty used IDEO.org (IDEO.org, 2015) resources on conducting interviews in a human-centered design framework to teach students interviewing skills in small-group settings. Students were required to model these skills by conducting practice interviews in Honors 2000, and the Honors 4500/4550 students attended class to assist in guiding and mentoring the student groups through the modeling exercise. Students were allowed to develop interview questions and then test them with other students in class and with the student mentors. As a result of these changes, the interviewing component of the process improved among student groups.

Out-of-Class Learning Activities

In the second semester, students were required to attend one facultyapproved, out-of-class learning activity that would enhance their experience in the overall learning process. Examples included but were not limited to 1) workshops to assist in the production of their final videos, 2) interviewing sessions with trained graduate students to improve overall interviewing skills, and 3) survey development workshops to assist in creating quantitative instruments for additional data collection. Student exposure to such outof-class learning opportunities enhanced the final products of each student group.

Faculty Meetings

Student feedback from the first iteration revealed that students who, as representatives of their student group, interacted more frequently with faculty were more engaged and immersed in the entire experience than those who did not meet outside of class with individual faculty. Therefore, it became a requirement for students to meet at least three times with individual faculty members throughout the semester, allowing faculty to delve more deeply into the process with individual students and to address any issues or questions they had about the overall project. The meetings resulted in engaging the students more as partners in both the learning and teaching of the course content since students incorporated the faculty/student discussions into class presentations for the benefit of all students enrolled.

Honors 4500/4550 Student Involvement

After the first iteration, a number of students have decided to continue their projects as part of their program requirements for the honors college (Honors 4500/4550). These students are supported by the honors curriculum and essentially opt to move the projects toward their Signature Honors Project (SHP). The student teams work with faculty mentors to pursue their independent projects proposed during the Honors 2000/3000 experience.

In the second iteration of the course series, the Honors 4500/4550 students collaborated with the freshmen Honors 2000/3000 students by providing guidance and feedback, particularly to student groups with similar project topics. The Honors 4500/4550 students participated in small-group discussions with Honors 2000 students about identifying wicked problems to address, determining key stakeholders for interviews, and improving interviewing skills through mock interviews and modeling. The Honors 4500/4550 students also participated in Honors 3000 by providing constructive feedback, in class and via an online discussion board, to all student groups throughout the entire semester. This feedback ranged from tips on engaging key stakeholders for important interviews to providing input on lessons learned from the first iteration of the course sequence. The incorporation of

the Honors 4500/4550 students into the freshman experience proved beneficial to both sets of students.

Assessment of Student Competencies

The last addition to the second iteration was administration of a formal assessment of improvement in key student competencies among the honors students. This assessment evaluated the effectiveness of the learning experience beyond student evaluations and class assessments. The team of faculty conducted data collection at the baseline (beginning of Honors 2000), the midpoint (end of Honors 2000), and the end of the experience (end of Honors 3000) on a number of targeted student competencies. The competencies included 1) community engagement self-efficacy, 2) university-specific outcomes, 3) grit/perseverance, 4) creative self-leadership, 5) team dynamic and effectiveness, and 6) entrepreneurial self-efficacy. A survey was constructed with items measuring each student competency in order to track changes among the competencies at each data collection point throughout the two-course series. The instruction team uses these data to determine the true impact of the course experience and identify areas in need of improvement for future implementation of the courses.

FRAMEWORK

Curricular changes resulted in a two-semester framework focusing on community engagement and innovation, and it was structured with three distinct focal points: an internal self-audit on motivations and self-satisfaction; an external examination of societal problems and ideation in relation to possible solutions; and team-structured startup methodologies to frame and address these societal problems (Figure 1). Collectively, these three areas facilitated improvement in the non-academic skills of grit, resiliency, creative self-confidence.

Internal Self-Audit

Design thinking strategies were introduced first on an introspective level with the assigned summer reading of *Designing Your Life* (Burnett & Evans, 2016) and early first-semester coursework that asked students to examine their motivations and reflect on ideas of personal satisfaction outside of career goals. With this self-examination, students confronted external expectations for their lives and better understood their own relationships with personal

goal development. Through exercises and examinations, students became more familiar with their own motivations and perspective on the world. Once students completed this internal audit, they formed small teams and began to use these skills to look outward.

External Examination of Societal Problems

The external examination challenged students to look outward toward wicked problems (Rittel & Webber, 1973) surrounding them in the world. Small teams of five or six students began to use human-centered design (IDEO. org, 2015) concepts to understand these intractable problems from multiple perspectives. By gaining insight into the many facets of a wicked problem (Rittel & Webber, 1973), students could adopt an empathetic position, resulting in a better understanding of the various groups' intimate knowledge of the problem. This effort took students out of their own vision of the problem at hand and revealed a more complex and nuanced understanding of the world. Teams brainstormed different solutions and tested different approaches to engage with their chosen problems. As the first semester closed, students presented these solutions to the full class in poster form, leading to an evaluation of which projects would move forward into the second semester. Examples of projects that moved forward included work on issues surrounding student isolation, issues of campus sustainability measures, how the counseling center markets resources to students in need, methods to reduce sexual violence, and creation of mentoring systems for at-risk children in local schools.

Entrepreneurial Student Teams

In the second semester, a smaller number of groups moved forward toward constructing an implementable plan to address their problem. This effort demanded larger group membership and posed challenges in team dynamics, workflow, and group member responsibilities. The classroom was flipped in this semester as student teams presented their work each week to the whole class. Faculty posed questions to help move the team projects forward using the relentlessly direct (Byers et al., 2016) feedback method in order to assist teams in making changes and discoveries in a timely, focused manner. Each group employed a business model canvas (Osterwalder & Pigneur, 2010) to frame the propositions the teams were putting forward to implement change. This canvas offered a structure to understand the various necessities of business implementation such as revenue streams, channels of distribution, key partners, customer segment, and key activities. Students were charged with interviewing stakeholders for their projects and reporting to the class any progress, failings, or pivots related to their project. At the end of the semester, student teams were asked to reflect on their progress and decision-making thus far and to determine if their project was viable to move forward.

Team collaboration skills improved throughout the course experience. Overall, they grew to know each other's strengths; practiced public presentation; worked communally to address large problems identified within their community; participated in conversations with a diverse population working toward positive change in their world; and developed leadership skills within their class and community. For student teams to be successful throughout this experience, adequate resources were necessary.

At the end of the semester, teams fell into two categories: those that had a plan to move forward and those that decided to abandon further work on the topic. Either outcome was appropriate. Students presented these conclusions in the form of short videos that they produced throughout the semester documenting their process and exploration. A subset of team members from those teams that had converged on specific plans of action opted to carry their projects into the next academic year as their "Signature Honors Projects."

RESOURCES

A key resource in the delivery of the course was the use of graduate assistants not to teach themselves but to support faculty teaching. Graduate assistants worked with the faculty team to grade assignments, monitor attendance, and provide feedback to the teams as needed. Given the amount of work involved in the delivery of these two courses, the graduate assistants were essential to its success. The graduate assistants were also charged with creating and leading workshops that would aid the student teams on topics such as interviewing techniques and video production. These workshops were a resource for the students and gave them supplemental information beyond the scope and timeframe of the weekly class. The graduate assistants were also a support for the students since they could serve as mentors for undergraduates who were hoping to go into the same fields as the graduate students.

An additional resource for the students and graduate assistants was the primary physical space of the Innovation Design Lab (IDL). The IDL is a growing space on ECU's campus to support innovative team development.

The IDL began in 2009 as a pilot program in a 500-square-foot space to test the concept of using innovation and design methodologies and additive manufacturing (AM) systems (3D printing) to develop talent in Science, Technology, Engineering, Art/Design, and Mathematics (STEAM), to initiate projects with industry clusters, to address workforce training and competitiveness, and to foster the development of entrepreneurial enterprises. Within the twosemester sequence, the honors student teams were invited and encouraged to use the space and its resources: the graduate assistants held office hours and offered workshops there.

Student groups that chose to continue working on their project after the initial two-course sequence had ECU's NSF, I-Corp Site program, Idea 2 impact GO (I2I GO), US EDA eNC Innovates!, and NC IDEA, Ecosystem Partners, as additional resources. These grants are designed to be economic drivers for eastern North Carolina and so connect with the mission of some student groups. Groups that chose to continue with their projects could take advantage of these and other resources available through the university. Individual students interested in continuing within the design thinking mindset presented in the courses could complete internships through the IDL.

Lastly, the honors college provided funding for many of the resources needed for the students and faculty throughout the experience. The honors college and the IDL both supported the graduate assistants for the courses. The honors student teams were required to create and share a video of their ideation and development process, and the honors college supported this endeavor with equipment and training, e.g., cameras and video editing software. Additionally, ad hoc requests from student teams emerged at times, and the honors college often funded them, e.g., healthy snacks for a workshop with a local after-school program. Finally, the honors college has funded professional development, conference presentations, and summer intensive sessions for the faculty team's course development.

LESSONS LEARNED

Throughout the design, implementation, and iteration of this twosemester sequence, a number of important lessons emerged at different levels within the structure of the university.

Administrator Perspective

Faculty Recruitment and Retention

In order to develop an intentional environment for honors students to grow, flourish, and become positive influences on their community, honors must have strong administrative support so that deans of honors colleges can recruit and retain talented faculty teams from across disciplines. Incentivizing faculty through stipends, course/FTE buyouts, Fellow status in the college, and professional development opportunities has been critical to the development and implementation of the honors curriculum at ECU. In addition, recruiting the most talented faculty from other colleges and departments requires deans and unit administrators outside the honors college to have buy-in for its educational mission. A further incentive is that the honors college promises an increase in majors as well as shared student successes. The honors dean at ECU has advocated for the overall vision of the program, exposed fellow administrators to the objectives and campus-wide benefits of the curriculum, and cultivated numerous partnerships necessary to its overall success.

However, even with buy-in from administrators, a significant challenge is overcoming the barriers that honors college faculty face when trying to effectively capture their honors work for their tenure and promotion portfolio, especially since honors faculty have their academic home in various disciplines. The ECU faculty team has addressed this challenge in the development of a research agenda connected to the implementation and delivery of the honors curriculum, ensuring that scholarly research products and grant funding can be documented for promotion committees to review. In order for interdisciplinary education to be sustained, departments and colleges need to recognize its importance in the tenure and promotion process.

Academic-Community Partnerships

Support from community partners is a critical component of exposing students to community-based experiences. These collaborations breathe life into the curriculum and add a sense of real-life value for the students. Institutional administrators must foster these connections in order to understand the reciprocal relationship, formulating sustained collaborations that are beneficial to both parties. All partners need to understand that the students are in training but also have creative minds that can assist in developing solutions for wicked problems (Rittel & Webber, 1973) to be tested within their communities. At ECU, the partners have helpfully provided parameters for student involvement while also buttressing the creative space needed for students to develop new ideas to identify and address pressing issues.

Among the academic-community partnerships, one student team is currently engaged with Building Hope, a non-profit that pairs college students with at-risk youths as mentors. The students have developed a recruitment and vetting strategy to ensure a consistent and reliable pipeline of motivated college students for the organization. Another team has partnered with the Boys and Girls Club and ECU athletics to provide weekly events for the children at which athletes engage them in physical activity and communicate the value of college. Other teams have partnered with local schools to run workshops on financial literacy, navigating the college admissions process, and ways to avoid student debt.

Funding to Sustain the Freshmen Experience

In order to support implementation of the curriculum and ensure that student-led team projects are sustained beyond the freshmen year, administrators need to provide the funding and other resources necessary for the student teams to be successful. Resources should include a sound infrastructure for guidance on internal and external grant applications for student team projects and comprehensive development/fundraising initiatives to support student work. Administrators must also find ways that allow students to link these new experiences to academic credit opportunities and internship experiences. In addition, supporting the faculty with internally funded graduate assistants and faculty development opportunities, e.g., conferences, helps a dedicated team deliver effective instruction and leadership in and out of the classroom.

Faculty Perspective

Fostering a Team among the Faculty

The design of the course allows a variety of faculty to participate regardless of individual disciplines. The faculty organization has no leadership per se; all members of the teaching team have an equal voice and an opportunity to lead within their areas of expertise. Though this structure creates a challenge in management, the overall benefits far outweigh the difficulties that may arise when multiple perspectives are voiced. Buy-in from the faculty members to the objectives of the course is imperative to its success. A true teaching team emerges when the honors college administration provides support through funding faculty participation in workshops and conference attendance as well as curriculum development in weekly planning meetings.

Consistency in Course Delivery among the Faculty Team

In a course with 200 incoming freshmen and five faculty members, student preference for one or another faculty member can quickly develop. In order to protect against this student mentality, the faculty team focuses on building consistency into our processes, grading, and lesson plans. Creation of joint lesson plans ensures uniformity in content delivery and in-class assignments while allowing faculty members the opportunity to lead the class in their own individual manner. Simple grading rubrics allow for consistency in grading. The rubrics are developed by the teaching team before assignments so that the entire team can provide input on allotment of points, how points are awarded, and ways to address student complaints. When a faculty member has students who are outliers, the team discusses the situation before the individual faculty member provides a response. This unified team approach allows the teaching team to develop consistency in content delivery, grading, and problem resolution, which is essential to the success of the class. Although changes were made to the course from the first to the second iteration, consistency continues to be a priority among the faculty team.

Developing an On-Boarding/Off-Boarding Program

The interdisciplinary team offers multiple benefits to the course design and delivery; however, it comes with challenges to the maintenance of the course. The logistics of finding and keeping faculty who can participate in the course delivery over multiple years is challenging. For this reason, an onboarding and off-boarding process should be developed. The team currently uses the summer planning week to introduce new team members to the course while allowing faculty leaving the team an opportunity to share their feedback and offer suggestions for improvements.

Team Teaching with Five Faculty and Two Hundred Students

Although the faculty team initially knew that constant communication and collaboration were going to be required for these courses, they did not realize just how much time was required to create such courses in a unified, consistent, yet flexible manner. For the first iteration, the team participated in a one-week, intensive, summer prep that included all five faculty, two administrators, and multiple supporters of the honors college. The faculty team spent the first summer session completing a human-centered design course while simultaneously developing the year-long course. In the fall semester, the team then traveled for a two-day intensive training on the method deployed during the spring semester, Lean LaunchPad[®] (Blank, 2010). During the academic year, the faculty team met weekly for two and a half hours to plan, discuss, and manage the course and then for two or three hours weekly for course delivery.

The time commitment was significant and necessary for course development, faculty development, and course delivery, and it has remained important for all new faculty entering into the sequence. The faculty team still meets weekly for two and a half hours and has added an additional meeting time monthly for evaluation and research efforts. Any team that wants to adopt this kind of unique offering for its students must be willing and able to dedicate significant time to the effort.

The Teaching Team as a Research Team

Pedagogical research can be an important outcome from the teaching team's endeavors. Any team attempting to replicate this system should develop separate meetings that focus only on the research questions identified at the beginning of the course design efforts. Potential research questions of this kind are numerous: e.g., assessing the effectiveness of the educational intervention; understanding the students' changes in behavior or perception based on their community interactions; measuring leadership development among students in a team setting; and understanding feelings of isolation among college freshmen. During these meetings, the focus is on research, not on the class logistics. Staying focused on the research questions, measures, and writing efforts can present the team with an opportunity to better understand what is happening in the classroom and to continue to be productive scholars while dedicating so much time to the effort.

Student Perspective

The honors college has successfully developed a system that creates growth on a student-to-student basis as well as a university-wide scale by teaching incoming students the methodology of qualitative research. Coming into the university, not many students have the chance to learn hands-on research skills. The curriculum of Honors 2000–3000 and its accompanying Signature Honors project course sequence, HNRS 4500–4550, does a thorough job of teaching students' invaluable skills of professionalism, opportunity seeking, problem-solving, and valuing experience.

This curriculum also provides students an in-depth guide to maximizing their college and research experience. Guided by *Designing Your Life* (Burnett & Evans, 2016), students can explore research-based projects focused on self, community, and activism, instilling a sense of independence and resilience in students in long-term projects atypical of start-up ventures. When students have the choice to find their own passions and forge their own professional relationships, the connections between the university and community are strengthened.

However, the program does have several flaws worth mentioning: the skepticism of first-year students about connecting to 4500/4550 students as mentors; unequal workloads in large groups that are unfamiliar with the delegation of responsibility; and the saturation of resources when multiple students contact the same faculty/staff. Nevertheless, the course is designed to teach both students and faculty how to embrace and learn from the experience of finding solutions that will counteract difficult situations.

Students learn many lessons from a dedicated team of faculty. Whether expected or unexpected, a change is always accompanied by growth. The value of a venture is not whether it is a success or a failure but the knowledge gained along the way. Teamwork never fails to yield a new perspective. Although working in a team may serve as an unexpected challenge, it teaches students the importance of communication and servant leadership. Finally, every situation yields opportunity. No lead is too small to go unchecked, and a good idea should never be abandoned even if it is deemed "too hard."

CONCLUSION

As universities move toward providing students opportunities based on process rather than a product, the East Carolina University Honors College adopted a unique approach in response to this new direction. Using human centered-design (IDEO.org, 2015), an interdisciplinary team of faculty developed a year-long freshman experience focused on community engagement and social change. The framework guiding the course included three distinct focal points: an internal self-audit on motivations and satisfaction; an external examination of societal problems and ideation around possible solutions; and team-structured startup methodologies developed to frame and address these societal problems. A key outcome of this design was the development of specific, non-academic skills, including grit, resiliency, creative self-confidence, and self-efficacy in community engagement.

The freshman experience is entering its third iteration, and we can share many lessons to provide other honors colleges with a framework for a student experience that encourages innovative thinking, an entrepreneurial mindset, and community engagement; to provide lessons learned for an effective program from administrative, faculty, and student perspectives; and to share resources needed for an effective program.

Key considerations for the development of a successful program should include, above all, a committed faculty and administrative team. The faculty must value team teaching while being invested in developing innovation, community engagement, and an entrepreneurial mindset in students. Teaching and developing these skills does not follow a traditional lecture-based design, and at times, students find this challenging. A committed faculty needs to keep students at the center of all decision-making, support the process and fellow team members, and consistently encourage students to engage in the process. Additionally, having the faculty team undertake research and evaluation of the effort early on ensures their continued scholarly productivity while committing significant time to the curriculum and the team. The administrative team must focus on supporting the faculty and providing the necessary resources. Bridging the multiple academic units of the students and faculty engaged in the freshman-year experience is another key consideration for the administrative team. This bridge-building develops buy-in across campus and supports the work of the faculty and students alike.

Future Research

Future research should focus on assessing the personal growth and professional development of the students. This assessment can also be applied to the faculty team as they are constantly learning and adapting throughout the process. As student teams work within the local community, assessing the impact of their efforts is another future focus for research. Better understanding the impact our students have and have not had is important as we continue to make changes to the curriculum.

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The authors may be contacted at

FordK@ecu.edu.

Teaching Critical University Studies: A First-Year Seminar to Cultivate Intentional Learners

Elizabeth Bleicher

Ithaca College

Abstract: The first-year seminar Why Are We Here? Student Culture and the Problem of College (WAWH) helps high-achieving students become motivated agents in their education by changing attitudes toward themselves, college, and their roles as students. The author presents the intentional design, execution, analysis, and results of the WAWH seminar, a curriculum that combines content and methods from the discipline of Critical University Studies, layered high-impact practices, studentcurated and student-led discussions, and explicit instruction on metacognition in teaching and learning. The decennial study (2008–2018) involves eighteen sections and over 300 students, all with similar written assignments, reflections, and final course evaluations. Results indicate that students gain clarity in the understanding of their own values, opinions on issues, and sense of self as learners; of the purpose of college and liberal education; and of issues involving the U.S. education system and the academy. The author posits the WAWH model as a means for synthesizing theory and practice in education; securing honors programs' impact and relevance within institutions; and maximizing institutional investment in high-achieving student populations. Learning outcomes and implications for scalability are discussed.

Keywords: first-year seminar (FYS); high-impact practices; student-led seminars; metacognition; scaffolding (teaching method)

Research has shown that multiple high-impact practices (HIPs), of which first-year seminars are but one, have greater impact on students' academic success than HIPs offered alone or no HIPs at all (Hansen and Schmidt 1). However, while students may be exposed to a broad spectrum of curricular and first-year student success programs in various academic units, they may be ill-equipped to synthesize their experiences. In research into HIPs in honors programs, Cobane and Jennings cite the Association of American Colleges and Universities (AAC&U) finding that "on almost all campuses, utilization of active learning practices is unsystematic, to the detriment of student learning." They assert that the resulting lack of coherence can diminish the effectiveness of HIPs by making them feel transactional to students (41).

Based on the assumption that the institution has a responsibility to coordinate first-year experiences for students, we developed a course titled "Why Are We Here? Student Culture and the Problem of College" (WAWH). The WAWH model is intended to yield maximum benefits and coherence by being both theoretically grounded and highly intentional in design, execution, and mutual reinforcement among components. The WAWH model combines layered high-impact practices; student-led discussions; explicit instruction and practice of metacognition in teaching and learning; and methods and content from the field of Critical University Studies, a self-reflexive discipline predicated on critiquing higher education. The model offers students scaffolded learning so that they can ultimately assume ownership of the seminar. This course is not a mere pedagogical exercise but was constructed as an intervention to empower a generation of honors students whom we perceived as passive consumers of educational experiences, making them motivated agents in their education by changing their attitudes toward themselves, college, and their roles as students.

Throughout this study, I refer often to "we" as a direct result of the way the WAWH model has transformed the first-year honors seminar into a mutual scholarly endeavor between faculty and students. I, as author of this essay, am not solely responsible for designing, implementing, and assessing the WAWH model. Twelve years have turned students and faculty into collaborators, who between them have amassed a shared repository of thousands of pages of course documents and hundreds of media artifacts, coming to share a sense of ownership of the seminar described here.

THE PROBLEM OF COLLEGE

It may seem counterintuitive to assert that honors students have a unique need for a first-year seminar on finding academic purpose. We assume that our most academically successful students must know why they are striving so hard to achieve so much, but a decade and a half of teaching first-year students taught me otherwise. When polled on the first day of class on whether they have ever been asked why they are going to college, rarely do more than two respond positively, and they are almost always the first in their family to attend college. The vast majority have never questioned if or why they are college bound; it is simply an assumption transmitted by family, friends, and teachers.

When required in the first assignment to articulate their reasons for enrolling, few students have answers beyond their need for a degree to get a good job and "become a well-rounded person." By semester's end, students offer much more nuanced rationales for attending college in their personal philosophy of education. In the months between, we problematize both the system in which class members have been processed into college students and the institution of higher education to which they have blindly delivered themselves. They realize that they made a life-changing choice without knowing the difference between a college and university and that they have no idea of the faculty reward systems that are some of the greatest influences on their academic experience. They are unaware of contemporary debates over the purpose of a college education; skeptical about educational structures because of ability-grouping in secondary schools; shaken to learn that racist federal real estate lending laws from the 1930s continue to perpetuate inequality in the school systems of which they are products; and deeply discomfited by the material effects of history that challenge their belief in meritocracy. They are surprised to learn that the majority of college students who go to college with a major change it or that the last U.S. census found that only 27% of adults with a terminal bachelor's degree have a career directly related to their major. Last year's class was incredulous when they learned that employers will never see their college transcripts. "What else haven't they told us?" sputtered one student.

Having witnessed a steady increase in students' lack of academic purpose, I designed a first-year seminar to help incoming students situate themselves within the discourses of the academy and become intentional, independent learners and agents of change. The WAWH model offers concentrated experiential learning to yield the most generative relationship between form and content. Like Knapp et al. in their work on first-year honors students, we explicitly sought to create a transformative educational experience. We developed the following research questions:

• What if we developed a model for an honors first-year seminar to serve as an academic, intellectual, and personal intervention to change the way students see college and how they see themselves as students and adults with political agency?

- What if we focused its pedagogy on teaching students how to learn by teaching them how to teach themselves, how to reflect and take academic and intellectual risks?
- What if we intentionally compounded all that we know about firstyear seminars, student development theories, high-impact practices, and how learning works to build the single most impactful honors first-year seminar possible?
- How might we create mutually reinforcing results if we combined student learning outcomes (SLOs) for honors programs, first-year seminars, and Critical University Studies?
- What if, in constructing the content, structure, activities, skill building, and experiences, we sought to cultivate in our first-year seminar "the kind of students we wish to have in senior seminars?" (Schilling 119)

I. GOALS AND OUTCOMES: A PACKED AGENDA

The result was a course titled "Why Are We here? Student Culture and the Problem of College." Student learning outcomes were derived from three sources: the first-year seminar program, the honors program, and content and practices within the disciplinary field of Critical University Studies.

First-Year Seminar Student Learning Outcomes

First-year seminars (FYSs) are one of the high-impact practices proven to yield the greatest benefits to student success. An extensive body of research from the National Resource Center for the First-Year Experience on best practices in first-year seminars (especially Barefoot and Gardner) has delineated specific structures, goals, and student learning outcomes for helping first-year students make a successful transition from high school to college, including:

- Persistence to second year
- Feeling connected to the campus community
- Written and oral communication skills
- Knowledge integration and application
- Academic engagement

- Values clarification (education, success, academic risk)
- Involvement in political activism/social advocacy (Keup and Petschauer 40–41)

Each institution determines SLOs to target in its first-year seminars; the three chosen by our school are (1) identify and articulate assumptions that underlie an idea, argument, or creative work; (2) develop and evaluate arguments; and (3) advance your skills as a writer, speaker, thinker, and scholar.

Layered High-Impact Practices

Hansen and Schmidt, Kuh, the AAC&U, and others have written extensively on the ways high-impact practices affect each other synergistically. The more HIPs students experience, the higher their GPAs and their retention, graduation, and satisfaction rates (Hansen and Schmidt 57). The first-year seminar is in itself a HIP, but to maximize impact the WAWH model includes five others:

- Collaborative learning
- Academic challenge
- Writing-intensive coursework
- Undergraduate research/time on task
- Public sharing of research

Honors Cultural and Academic Induction

Every honors course at our institution is assessed on the extent to which it offers academic challenge, deep student engagement, discussion-based learning, inquiry-based learning, and cultivation of students as active producers of knowledge. Research into the effectiveness of first-year seminars points to an advantage for honors programs. The greatest impact on students' collegiate and lifelong learning habits is derived from an FYS that includes significant academic challenge, and first-year seminars that are academically challenging have greater benefits for students' lifelong learning orientations (Padgett et al. 145).

In striving to help students develop intrinsic motivation and redefine their identities from high school students to collegiate scholars, the WAWH model is designed to help students reframe their relationship to grades and interpersonal competition. We try to include enough academic challenge to

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make honors students strive without triggering undue anxiety in a population susceptible to perfectionism. We also try to prepare them for inevitable challenges to their identities as smart, high-performing students. The syllabus includes a preemptive policy about resisting the urge to demonstrate just how knowledgeable they are when their identify feels threatened; it explicitly states that collegiality is rewarded over competition and that it is demonstrated by building on each other's ideas and thanking each other for provoking thought.

Further, since honors students are especially sensitive to grades, first-day ground rules include direct talk about the perils of intellectual prostitution, which is not a synonym for plagiarism but rather the practice of saying or writing what you think the teacher wants to hear in the mistaken assumption that this will yield a good grade. Our syllabus comprises issues that are at once personal and political, topics on which class members are likely to have opinions. The bottom line is that we do not have to agree with each other but we do have to demonstrate respect for each other, meaning that if a student writes a well-reasoned, evidence-supported argument for a position to which the professor is diametrically opposed, an A paper is still an A paper, and intellectual integrity always wins.

Goals for a Course in Critical University Studies

The objectives about which students are initially most concerned are those relating to content. Many class members are not accustomed to being both the scholars and the subject of their study, and they are intrigued to discover the relationships among course content, form, process, and participants. The stated course goals are:

- Clarify your values and goals for your own college education, so you can articulate your academic purpose and answer: Why am *I* here?
- Develop a sense of political and academic agency to advocate for research-supported change on an issue that is meaningful to you.
- Cultivate intellectual curiosity and challenge yourself to become an intentional, self-determining, and intrinsically motivated learner.
- Understand the purpose and value of liberal education.
- Make connections among our course, other courses, and prior knowledge to develop the integrative habit of mind (integrative critical thinking).

The result of these synergistic, first-year-seminar SLOs combined with honors program objectives and disciplinary objectives is a packed agenda that squares with the WAWH model's ethos of making every moment and feature of the first-year honors seminar pay off in as many ways as possible.

II. DISCIPLINARY CONTENT: CRITICAL UNIVERSITY STUDIES

The choice of Critical University Studies (CUS) is a natural fit for an honors first-year seminar; this relatively young discipline is rooted in cultural studies and combines education, sociology, politics, literature, economics, and history to turn a critical lens on the academy itself. The term was first defined by Jeffrey J. Williams in a 2012 article in The Chronicle of Higher Education: "An Emerging Field Deconstructs Academe." Williams describes the criticism of higher education that emerged in the 1990s and continues to grow. Drawing on feminist, socialist, legal, and liberation education theories, CUS is deliberate in its work to trouble commonsense assumptions about the academy and to restore historical and cultural context in order to examine how power functions and whose interests are being served. CUS problematizes college by examining "the policies, practices and problems of contemporary higher education. . . . It analyzes how our social institutions foster injustice or perpetuate inequality, and it advocates for their fuller democratic possibilities" (Williams 149). The discipline is predicated on the understanding that "all research and teaching is shaped by political, cultural, economic and historical forces [despite the fact that] we often teach and publish knowledge as if it is divorced from political and economic concerns" (Samuels 2). As the discipline becomes more institutionalized, it has become the subject of book series from such presses as Johns Hopkins, Palgrave, and Berghahn, and of scholarly research groups, conferences, and graduate critical theory programs at the University of California at Berkeley, the University of British Columbia, and Northwestern University among others.

Critical University Studies also emphasizes students as researchers and promotes projects that require students to combine research with writing and social justice goals and to share their knowledge via multiple modes in order to create more equitable public and academic access to their findings. The goal is for students to become producers of knowledge contributing to the discourse as opposed to passive consumers of information produced by others (Steffen), thus aligning directly with the goals of honors programs.

Highly Relevant Course Content

Course content is selected based on relevance to entering first-year students but also on its ability to spark engagement, deep reflection, increased understanding of social injustices in access to education, and personal, political action. While CUS focuses on higher education, the syllabus for the WAWH model includes the study of K–12 education because first-semester students have the greatest experience with it, and this gives them confidence on which to build a critical practice for studying the culture and institution they have just joined. Teaching students to critique the academy aligns with Cargas's assertion that teaching honors students potentially divisive issues develops their disposition toward critical thinking: "Analyzing controversies in a way that requires deep consideration of all the sides of an issue induces the kinds of discomfort that leads to serious thought" (126). All of this serves one of the primary purposes of both Critical University Studies and the course: to render visible the water we swim in, thus making it possible to question why things are the way they are and to create interventions for positive change.

Over the twelve years this seminar was offered, we amassed a collection of thousands of pages of articles, political cartoons, plays, short stories, and media links contributed by faculty and students who have experienced, heard about, or observed our class. This collection lives online in our learning management system, and student leaders use it as the foundational library from which they can pull materials and media for their units. It is telling that course alumni both continue to contribute to it and use it as a resource in their academic and personal lives long after their first semester.

Educating the Critic

Asking class members to define the characteristics of a good student is illuminating since it requires a significant effort for them to excavate and examine their assumptions about being a learner. Initial responses point to lower-order thinking, such as memorization, and obedient behaviors, such as raising one's hand to be called on and turning in homework on time. Only with prompting do they get to active attributes such as intellectual curiosity, creative problem solving, and persistence. The majority think that professors value and reward compliance.

Students are more expansive in their definition of good teaching although they have a hard time separating it from their definition of a good teacher, which plants the seeds for a conversation on the difference between liking and respecting a faculty member. Letting students realize that they prefer to be taught good content by a professor whom they respect and who respects them is far more powerful than telling them what they should value. This realization lays the foundation for reflection on the kind of teacher they want to be not only when they are leading class discussions but when they are writing their papers and want to be seen as knowledgeable, credible, and engaging. Such discussion sets the stage early in the semester for students' becoming educated critics within the academy and partners in their own education. When they understand the formative pedagogical uses of assessment and evaluation, both in their work and the instruction itself, they better understand and engage with these processes.

As part of our introduction to Critical University Studies, we read competing arguments about the role of course evaluations and how they should shape classroom instruction, faculty tenure and compensation, and curriculum. Students are surprised to learn that treating a course evaluation as they would an online review for a local restaurant is an abuse of their power. We discuss the ethical dimension of anonymous instruments and the human urge to strike back in a charged, power-imbalanced relationship like that between student and professor. Students need to learn how to exercise their agency constructively and responsibly, so we teach them both why and how to complete a course evaluation. The process takes student engagement to another plane.

Preparation for the final course evaluation is the "Last Class" protocol for reflection and assessment (Bleicher 2011). Students complete a worksheet that prompts them to review readings, reflections, notes, and assignments before we gather to tear the syllabus apart and rebuild it to make it better for the next year's students. Class members understand that they have the power to revise the course because they both taught and took it. This lesson not only demonstrates to students how much they have learned about themselves, the course content, and learning, but it also communicates what we value as an institution and how we want them to approach their studies moving forward. As a result of this cycle of assessment and revision, primary course content includes the following units of study:

• a brief history of higher education from the pre-industrial revolution to the present, with an emphasis on consequences of the GI Bill and democratization of access to higher education, followed by the defunding and privatization of higher education in the Reagan years and beyond;

- competing theories and contemporary debates on the purpose of college, purpose of tenure, effects of tenure requirements, and effects of labor practices on the student experience of higher education;
- the definition, purpose, and benefits of liberal education;
- why we have required courses;
- youth as consumers of culture, goods, and services, along with the rise of commodification and the consumerist ethos within higher education;
- contemporary youth as producers of culture and the historical role of students as agents of social justice and political change;
- the historical and political legacy of real estate redlining and its impact on equity in contemporary K–12 schools, college admissions, and student success, including high school and college graduation rates;
- meritocracy and the effects of ability grouping, access to advance placement or college credit, and honors/gifted programs on students and school systems;
- the role of prestige ranking and brand names in college selection, including the real and perceived impact on graduates' personal happiness and professional success;
- student development theory: what social science shows that students experience in the first year;
- personal relationships in college;
- learning from failure and taking academic risks; and
- the last class: critical thinking about students' experience of the curriculum.

Real-World Application in Real Time

Our grounding in Critical University Studies led us to create room in the curriculum for a unit on meritocracy; without highly targeted readings and media, students had difficulty understanding why meritocracy does not work for all youth in our country or to critique the ways honors education can help perpetuate social injustice. These issues existed long before Black Lives Matter, but a unit on meritocracy gives us room to discuss such specific movements in the moment, along with the role of affirmative action as a path toward diversity but not automatically inclusion and equity. As protests rocked our campus in 2015, students in the course joined others and successfully agitated for the removal of the college president, who had made a series of insensitive statements both on campus and in the national press. The course offered students an academic and historical context for these events as well as a place to process their experience academically and intellectually, not just emotionally. This hands-on and immediate application made them see the relevance of what they had learned in the course.

A generic unit on problems in college led to one focused exclusively on personal relationships. Students had long been pressing for its inclusion, but it became especially relevant to the course in the wake of the #metoo and #timesup movements focused on sexual violence. When we incorporated this unit, which had always been proposed as one on sexual and romantic relationships, students chose first to study the way college affects relationships with family and friends. Only then did they turn to competing definitions and expressions of intimacy; the need for "relationship ed," not just sex education; the impact of social media and online dating on students' emotional development and sexual habits; and debates about consent and how to obtain it responsibly.

III. PEDAGOGICAL THEORY INTO PRACTICE: CONSTRUCTIVISM AND METACOGNITION

We approach our ambitious agenda through theories derived from the fields of education and psychology. Students learn upfront that the course is designed and conducted according to constructivist pedagogy (Piaget and Dewey), which posits that students learn most effectively by building new knowledge together, from the ground up, in partnership with a teacher who serves less as a font of wisdom than as a knowledgeable guide. This mode is the opposite of behaviorism, where students are passive recipients of information delivered by a wise teacher and are rewarded by demonstrating desired behaviors, such as submitting correct answers on tests or writing papers that include all elements on a rubric. From the outset, students learn that they will become the teachers. Some are puzzled, but most are curious; occasionally one drops the course to find a seminar with a more familiar, traditional structure. Ownership of the course is first scaffolded and then transferred to the students. This process is predicated on John Dewey's active learning theory of education and experience; Bloom's taxonomy, which describes a graduated path to cultivating higher-order thinking; and Vygotsky's concept of scaffolding. Dewey made the radical assertion in 1933 that educators should lecture less and engage students more. He claimed that experience without reflection was rarely educative, so it behooves teachers "to think of education as reflection and action, intellectual inquiry and dialectical process, whose ultimate purpose is to enable learners to create meaning through direct experiential activity" (Nash and Murray 92). For this reason, some faculty begin the course by introducing themselves not as the professor but as the captain, cruise director, or Sherpa for the students' journey through the semester toward a deeper understanding of the workings of the academy and themselves as learners.

We introduce Bloom's taxonomy to help students understand distinctions among the kinds of learning tasks they are asked to perform, the level of effort required, and the rationale for each. Faculty who maintain a constructivist teaching practice assume it is our responsibility to "[e]xplain why: If we wish students to become independent, lifelong learners, we need to help them understand both their own learning and the reasons that we ask them to learn in certain ways" (Erickson, Peters, and Strommer 255). As students learn to process the heavier reading load in college and consciously develop their skill in conducting discussions and asking effective questions, they are consistently and explicitly urged to cultivate and require higher-order thinking from themselves and their classmates in writing and speaking. The earliest questions in the course require participants to remember and understand the readings, but as they grow more experienced, they push each other to apply, analyze, and evaluate what they are learning, preparing them to create new knowledge, the highest order of thinking, in their synthesis projects at semester's end.

Metacognition on Teaching and Learning

In teacher education and some psychology courses, meta-analyses of a teaching method's effectiveness and the gap between a teacher's intention and a student's learning are often discussed within or immediately after a given lesson; this is not a common practice in most college classrooms, but it can be transformative. Students may be startled when the professor stops mid-sentence and asks why they are disengaged or requests that a student reframe the core concept to communicate it in a different way. These moments of meta-cognition, of forced awareness and of inquiry into their thought processes,

create a divided consciousness about learning and teaching that students find particularly compelling, creating a dramatic shift in their understanding of the power dynamics in our classroom.

In the WAWH model, we often prompt students during and outside of class to engage in metacognition about their own learning processes, their experience of classroom instruction, and the ways these differ across disciplines. What we offer is the promise that by thinking deeply about how learning does and does not work, they can understand themselves and how they learn so that when they are confronted with an unfamiliar discipline or a classroom practice that is not effective for them, they can discover how best to teach themselves.

IV. STRUCTURING THE CLASSROOM EXPERIENCE: SCAFFOLDED EXPERIENTIAL LEARNING (TEACHING TO LEARN)

The three essential components of Vygotskys's scaffolded learning are a collaborative relationship between "expert" and "learner"; knowledge of the individual and collective levels of development; and the scaffolding itself: a combination of supports and guidance provided by the expert, that is gradually removed as the learner becomes more proficient (Murphey). By leading discussion and processing students' responses to pedagogical choices in the first month of the semester, the professor learns where students are on a variety of spectra, including academic preparation, social skills, emotional intelligence, intellectual development, and maturity, thus determining how to group students for their mutual productivity and growth as well as the level of scaffolding a group may need.

The practice of assuming course ownership cultivates Bloom's higherorder thinking and constitutes a compact, intense form of experiential learning in which students learn by doing and then reflecting on their experience (Dewey). Evidence from decades of research demonstrates that students who tutor and teach typically benefit at least as much if not more from teaching as those who are being taught (Kuh 195). This practice helps meet the goals of first-year seminars insofar as "[t]eaching and helping others, and feeling good about it in a group, instills belonging and gratefulness, creating a sense of community" (Murphey 252). Further, the shared curatorial and leadership responsibilities constitute the high-impact practice of collaborative learning and include three of the recommended practices for enhancing student

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success: teaching new students the value and skills of active and collaborative learning; requiring students to provide feedback to their peers though structured course assignments; and cultivating service, experiential learning, and community orientations (Kuh 206).

Like Vassiliou, who has experimented successfully with student-led honors courses, the professor begins the semester by determining the readings and media, leading discussions, and demonstrating a variety of active learning strategies for discussion (114). These strategies may include traditional hand raising; one student calling on the next; prepared or spontaneous debate; Socratic seminar or fishbowl, in which a small group of students discuss a reading in the center of the room while the rest take notes; graffiti, in which students respond to questions and each other on poster paper around the room; and anonymous card passes to solicit points of confusion or "stupid questions." We discuss the merits and drawbacks of each method at the end of class. After the first month, students assume leadership of the course.

Honors Students and Collaborative Learning

Collaboration skills are consistently ranked in the top ten characteristics employers seek in new graduates, according to the National Association of Colleges and Employers, but honors students frequently come to college with a fraught relationship to collaborative work. Some have been burned by classmates who have failed to do their share on group projects. Others have been consistently paired with less skilled group members who offer them little challenge or effective feedback.

To rehabilitate students' expectations for collaborative learning, we discuss past frustrations and assumptions openly in order to establish common ground for class participation and teach explicit guidelines for constructive feedback on verbal and written argument and class participation. Students not only adopt these guidelines willingly, but they have on occasion taken steps to protect their learning environment by calling out class members who have clearly not done the reading and asserting rules for classroom citizenship in discussions of hot-button issues. When one student blurted an ad hominem assertion, her seatmate humorously chided her about undermining her own credibility. In enforcing individual responsibility for the collective good, students hold themselves and each other to higher standards.

With ground rules firmly established, students are assigned to a unit of their preference in groups of two or three and provided with a guide to over two dozen active discussion format ideas. They are required to confer on readings or media they wish to assign and to research fresh materials to use. Unlike Vassilou, students curate the content of their assigned unit and are only required to share their decisions with the professor in order to obtain guidance on academic challenges and realistic reading loads. Students take pleasure in choosing and preparing materials and discussion formats, having come up with some creative ideas; one such idea was to demonstrate the emotional impact of ability grouping in schools by distributing different kinds of candy to signal skill levels, and another was the "Game of (College) Life," in which players simulated outcomes of accreted curricular, extra-curricular, social, and economic choices made in college.

In the student-led portion of the course, the role of the professor is to correct factual errors, clarify questions (often about history), identify off-topic discussion that is not productive, and ensure equity and respect in discussion leadership. In our classroom, the professor has to follow the established discussion method and raise a hand or otherwise request to participate. Leaders have the right not to call on the professor or to limit participation at their discretion. In the earliest days, when leaders ask questions, participants direct their answers to the professor but are then guided to speak with each other, not to perform for the teacher.

After the first two student-led units, leaders discuss their experience to help those who will follow them. Most describe preparation and teaching to be simultaneously stressful, exciting, and exhausting. They recount the terror of a two-second silence after a question and how much work it is to incorporate disparate but interesting contributions. In written reflections, they note the complexity of trying to lead students to come to their own conclusions through effective questions and how often students take a direction or offer an interpretation they had never considered. In short, they note how teaching taught them something new. Occasionally, a class will vote to have students write and submit to the prior week's leaders a reflection on what they took away from each unit. Since the leaders read and assess these reflections using a brief class rubric, they gain a heightened understanding of the labor and time intensity of grading papers.

V. COMMUNICATION AND CRITICAL THINKING SKILLS

As noted above, the more high-impact practices a student experiences in college, the better their academic success and satisfaction with their college years will be (Hansen and Schmidt 57; Kuh 86; Cobane and Jennings 43). In addition to the first-year seminar being a HIP in its own right, we deliberately

incorporated multiple, mutually reinforcing ones to create synergy and maximize the WAWH model's potential impact, namely writing and speaking for understanding, argument, research, synthesis, and academic challenge.

Academic Challenge

The National Survey of Student Engagement (NSSE) asks students to describe how much time and energy they devote to tasks correlated with college success. Such questions include amount of time and effort devoted to preparing for class, reading assigned and other materials, and writing reports and papers; extent of engagement in activities requiring analyzing, synthesizing, applying theories, and making judgments; frequency of encounters with performance standards that compel them to work harder than they thought possible; and the degree to which the college environment emphasizes spending time on academic work (Kuh 177). Our institution administers the NSSE to first- and fourth-year students to gauge our success in integrating high-impact practices and challenging students to do their best work. Five years ago, our honors program added some NSSE questions to our course evaluations to gain specific information on our population and to communicate to students what we value as a program since students infer "it must be important if it's on the test."

Best practice dictates that institutions communicate clear academic expectations to all students, not just those in honors, from the day they hit the front door at orientation and that they reinforce this message throughout all course work, especially in the first year. The research points to five practices that engage students positively in academic challenge: inform students of high expectations from the onset; communicate the expectation of significant time-on-task for writing, reading, and class preparation outside of class; promise and deliver support to students who need or want skill development; provide a rigorous culminating experience; and encourage students to share results of their scholarly work with public celebration (Kuh 192). Acculturation to the demands of college is not a one-and-done proposition, however. Faculty and staff, including residential assistants, must reinforce the same messages in the early weeks of the semester, and faculty must design assignments that challenge and engage students for longer periods of time, hold students accountable for the quality of their efforts, and sometimes challenge them to exceed what they think they can do academically (Kuh 101).

Writing to Learn

Depending on high school preparation, students experience varying degrees of challenge in the shift to a college-level reading load, but nearly all except the most advanced are challenged by the transition to college-level writing. The uneven quality of dual enrollment and Advanced Placement courses across the country leads many to arrive with an exaggerated sense of their writing skills, so this can be a particularly sensitive issue for honors students.

In designing assignments, the WAWH goal was to build skill, capacity, and stamina. In addition to short reflections on each student-led unit and the experience of teaching a unit, the backbone of the course is three major writing assignments that teach a succession of related skills and can, but do not have to, include linked content. All address the first-year seminar goals of improving students' abilities to analyze and develop arguments and advance their writing and thinking skills. The first analytical paper requires students to engage in higher-order thinking by closely reading a cultural artifact such as a music video, an advertisement, or an object or place used by or targeted at college-aged youth. The questions of what the object communicates to youth about what they should be, do, think, believe, or desire are engaging and enable students to work from a sense of expertise as members of youth cultures. This assignment provides a foundation for teaching the components of a complete thesis statement and concepts and vocabulary from cultural studies.

The second argumentative assignment requires students to describe a problem currently affecting the lives of young people, convey what is at stake, advocate for change, and call the reader to action. Students report that this assignment has given them a platform to advocate for either issues about which they had prior knowledge or newly investigated areas of concern. The assignment is directly tied to the course objective to help students develop a sense of political and academic agency. As Nash and Murray point out, "When students see the organic connections between subject matter and their interests in performing service to others or dedicating themselves to a social cause that results in self-transcendence or creating . . . their learning becomes intense, focused, integrated and full of passion" (105). Students know from the outset that while they can develop their advocacy paper into their major research project, they are not required to do so. While some find the argument a springboard to the larger project, others determine that they wish to spend a month of their lives on a different issue, so it is useful either way.

Research and Extended Time on Task

The largest assignment is deliberately sequenced not to fall during final exam week. The synthesis project requires students to combine their analytical and argumentative skills with primary and secondary research and to communicate these ideas through the genre that best suits the project's purpose. Student control over genre aligns with practices in Critical University Studies (see Steffen, especially). The most common projects have been the traditional research paper; curriculum development for a course or workshop; experiment and findings; social justice work and reporting; and documentary film. All require extensive research and writing (usually 20–25 pages, but some students have submitted more than 50). Sample projects have included:

- Documentary films on student food waste, the need for explicit education in conducting romantic relationships, and financial need-blind versus need-aware college admissions
- Workshop curricula on choosing the right college, the importance of pap smears for college-age women, and developing guidelines for responsibly depicting mental illness in the media and entertainment industries
- High school course curricula on religions and spirituality, mental health and wellness, and media literacy
- College course curricula on using popular culture to study contemporary issues of power and justice and film to study contemporary inequalities in the American educational system
- Research papers on the efficacy of International Baccalaureate versus Advanced Placement Programs, challenges and solutions for helping teens in foster care transition to college, and a revamped K–12 civil rights curriculum

Public Sharing of Scholarly Work

All students at Ithaca College have the option of sharing their synthesis findings publicly, which is potentially as impactful as conducting the research itself. In our institution's NSSE results, our seniors report having had this experience at a higher rate than the national average, which is a source of pride for our institution. In addition to offering students the chance to participate in honors theses, faculty-collaborative projects, and mentored independent

research, our college holds an annual undergraduate research symposium, but this event has traditionally been populated by juniors and seniors. While having first-year students attend the symposium might expose them to academic conference culture, it does not have the same impact as the experience of becoming presenters themselves.

To foster this type of experiential learning earlier, the first-year seminar program launched its own research symposium, held in the last week of fall-semester classes. This condensed, three-hour event includes the same presentation formats as the all-college conference: poster sessions, creative performances, and both podium and interactive laptop presentations. Offering students this high-impact practice in the first semester of their first year has had a variety of transformative effects, the most powerful of which is a change in how participants perceive their academic labor. As one put it, they are "no longer writing for the teacher" but joining a larger, ongoing disciplinary conversation. They see their work as relevant and their advocacy as meaningful. Another reflected: "I care about this, and I was able to tell hundreds of people why they should, too." Perhaps the best result is that younger students are increasingly presenting in the all-college symposium in the spring.

The Final "Exam"

In keeping with the goal of explicit instruction and practice in reflection, the final assignment requires students to reflect on their first semester of college and write a 750–1000-word personal philosophy of education, which constitutes a bookend assignment to their initial reflection on why they are going to college. The final assignment offers students a specific time to consider how the course has influenced their beliefs, understandings, and commitment to their college education for better or worse; a prompt to start to synthesize what they learned about learning from taking four to six disparate courses; and a place to articulate how their beliefs will be incorporated into their personal educational practices over the next four years. Designing the final reflection this way puts into motion the conditions for students' realization that they alone will become the "ultimate experts in creating purpose, point, and rationale in their own lives" (Nash and Murray 95).

Students are urged to begin the composing process early enough to enjoy thinking and talking with friends about the evolution of their thoughts and beliefs and to leave sufficient time to concentrate solely on the writing for at least one session of revision. Again, students choose the genre that best suits their content and goals. The most popular have been a letter to their senior-year self, a commencement address for high school students, a convocation address to incoming college students, and a letter to a younger sibling or friend. That said, one student wrote an op-ed piece that appeared in his hometown newspaper, and another created a forty-page graphic novel.

Peer Leaders and Alumni as Partners in Establishing Purpose

One of the most effective strategies for both the writing-intensive and collaborative high-impact practices has been the strategic deployment of course alumni. Our first-year seminar program offers training and support for peer leaders, who conduct some of the transition to college sessions. Peer leaders offer conversation hours, host study breaks, and educate students about campus resources. All our peer leaders are WAWH alumni; the competition for this unpaid, for-credit leadership position is fierce, and our seminar is now known for providing many others with highly engaged peer leaders.

The peer leaders also recruit course alumni to serve as volunteers in one of three capacities. Some participate in a panel on how to tackle the synthesis project and manage a large and complex research task. Many help facilitate an early-semester community building activity, the cross-cultural simulation "BaFa BaFa," to sensitize students to invisible cultural differences. A few prefer to coach students on their presentations before the symposium. The sustained engagement of alumni demonstrates an ongoing sense of ownership of the course, an endorsement for incoming students of the scaffolded experiential learning method, and a reassurance that the academic challenges posed by the WAWH seminar are achievable and confer skill and confidence. As one alumna said, "After completing the synthesis project, no one can ever scare you again. You do that in the first semester, the rest is cake."

VI. ASSESSING IMPACT

No one objective measure can indicate the impact of the WAWH model given the many factors influencing students in a first-year seminar and within an honors sub-cohort. Further, students are not randomly assigned to seminars, and specific attributes of students who self-select might skew any results. Grade point averages as well as retention and graduation rates proved statistically insignificant, leaving only data from compromised sources such as the final course evaluation created by the honors program, which includes supplemental questions specific to the seminar but composed of biased language. However, potentially useful patterns of student response did emerge from the qualitative portions of first-year seminar course evaluations and students' written reflections as well as, indirectly, the replicability of spin-off courses. Between 2008 and 2018, the WAWH first-year seminar was offered 18 times to groups of between 14 and 22 students. Given that the primary goal was changing how students see themselves, college, and roles as students, their reports on their experiences afforded the greatest weight.

In course evaluations, students regularly report an increased awareness of their personal responsibility for making discussions successful in other classes as well as pleasure in studying issues and sharing ideas, readings, and media that matter to them. As a result of teaching, reflecting on their teaching, and critiquing curricular design, content, and delivery, the students provided evaluations consistent with those of Thompson et al., reporting shifts in their understanding of faculty and student responsibilities:

Changes in Views of Faculty Roles and Responsibilities:

- Expect more of professors in teaching style, personal attention to students, and answering questions
- Notice boring classes and student attention spans, especially during non-involving lectures
- Wonder about the teaching styles and critique them internally
- Critique testing strategies and classroom mechanics
- Gain awareness of mixed signals professors send and how they might confuse fellow students
- Notice "wait time" and perceive it more negatively when professors don't give students the chance to answer the questions (perceived as incivility)

Changes in Views of Student Roles and Responsibilities:

- Pay more attention to syllabi
- Go to office hours more often
- No longer skip class or arrive late—these are newly perceived as disruptive, embarrassing public actions
- Ask more and better questions in class, do not hesitate to ask "dumb" questions, be more involved in classes, understand that professors want students to ask questions

- Gain awareness of personal behavior in class, and how it might look to the professor
- Establish higher standards of responsibility to classes, spend more time in self-evaluation as students (Thompson et al. 58)

This final item is significant in that it connotes nascent intrinsic motivation, increased self-understanding, and a shift in identity from self as student to self as learner and maker of meaning.

The most profound impact of learning how to constructively critique teaching is students' recognition of their responsibility in the learning process (Kinland et al. 175).

Qualitative Course Assessments

Evaluations were analyzed for patterns of response that correspond to the goal of changing students' attitudes toward themselves, college, and their roles as students. Respondents answered three open-ended questions appended to the standard first-year seminar evaluation. Despite biased language, the results offer a sense of how the course influenced student thought and some behaviors. The most prevalent responses to the questions are grouped by level of frequency, along with important minority voices.

While the majority of students disclosed positive answers to Question 1, a few shared that undertaking a systematic critique of the academy, the purpose of a college education, and their reasons for attending college was anxiety provoking. In their research on first-year honors seminars, Knapp et al. note that "a transformative learning model encourages disruption in the classroom through the integration of critical thought on ideas that reveal difficult truths applicable to the individual's life" (123). A few students said they wished they had taken a seminar that was less personally and emotionally challenging.

Not all students have a positive response to the course. A few are unable or unwilling to make the leap to the teaching-to-learn model. The more selfdetermined learning style is unfamiliar, requires students to develop interesting problems to solve for themselves, and suspends the absolute authority of the professor, requiring students to reflect and assess their own performance and abilities. Some students may come from behaviorist, authoritarian systems of education that reward passive compliance; they may be resistant to assuming active leadership roles. As Knapp et al. observe in their survey of teaching practices in honors courses, implementing new structures to foster student transformation "can be an uncomfortable and risky experience for students at different levels of readiness for the process" (124). Further, a few are not mature enough to engage in metacognition and self-reflective discourse. A teachable moment occurred when a student responded to a (forbidden) text message at the very moment a classmate was sharing compelling data on the impact of emotional intelligence in the workplace; everyone but the texting student understood the irony instantly. Further, as Vassilou has noted, a few students have a hard time completing course evaluation questions about the professor because they do not perceive the professor to have been teaching during the student-led part of the course. Over the years in the study, the

Question 1:

What parts of the course have had the most impact in helping your approaches to college-level work and college life evolve?

Greatest Impact:

Helped clarify my values, opinions on issues, sense of self and self as learner

Majority Included:

Changed how I see the purpose of college and my understanding of liberal education Increased my awareness and understanding of the U.S. education system and the academy Helped me become an intentional learner to create the college experience I want

Many Included:

Gave me a real community/sense of belonging

Increased my sense of social/political awareness, agency and motivation to take action Offered real-world applications for class content

Increased understanding of college academic expectations and needed habits/work ethic Improved my ability to understand or empathize with others who hold different opinions

Some Included:

Spurred me to set or change specific academic goals Made me get more involved on campus Changed my relationship to risk and failure

Important Minority Voices:

Led me to change my major Confirmed that going to college is right for me Left me more confused than when I arrived at college

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occasional student has asserted that the teaching-to-learn method means the professors are not doing their jobs.

Two other groups of students may find the teaching-to-learn method challenging. We include in our seminar an interest inventory that helps students brainstorm potential professional interests. Students who identify with a particular strand of interests are attracted to structures, rules, order, and regularity. These students sometimes find that the frequent changes in discussion formats in our class are stressful. These formats may also be difficult for students with learning disorders that make them better able to meet expected participation standards when they remain consistent. That said, one year the students adapted the discussion format entirely to their own needs. When I suggested that they had become overly reliant on the fishbowl format, with students rotating into the small group in the center, they politely told me that

Question 2:

To what extent do you perceive the course affected your critical, analytical, and synthetic abilities to respond to contemporary issues in education?

Greatest Impact:

My writing skills and ability to write long papers (stamina) improved

Majority Included:

My ability to analyze materials and issues improved My abilities to participate in/lead discussion and speak in public improved My critical thinking skills improved

Many Included:

My ability to make arguments and use evidence improved I now make connections and integrate what I am learning

Some Included:

This course/research project has increased my sense of confidence This course/research project has given me a sense of accomplishment My primary and secondary research skills improved

Important Minority Voices:

My listening skills have improved I am better able/more motivated to engage in reflection most of them were introverts, that some had social anxiety disorder, that they thus preferred small group discussion, and that as they owned the course, discussion would be conducted in this way for the rest of the semester. It was.

Over the years in the study, some negative responses were reduced or mitigated by clearly communicating to students the structure of the model and by older peers' assertion that the course offers intellectual freedom, stimulation, and growth as compensation for taking the risk of a non-traditional, student-centered pedagogical approach.

NSSE Questions and Student Course Evaluations

Honors course evaluations from 2013 through 2017 incorporated questions from the National Survey on Student Engagement (NSSE). Analysis of the first two questions includes 21 sections (270 student responses) of non-WAWH honors first-year seminars and 5 sections (89 student responses) of WAWH courses taught by the author from 2013–2017. The p-values represent testing if the proportion of responses from WAWH is greater than the proportion from the other courses. In both cases, the WAWH courses had statistically significant greater engagement, using a 0.05 cutoff.

Question 3:

To what extent has this course encouraged you to take responsibility for your contributions to class and your own intellectual growth?

Greatest Impact:

It made me feel responsible for the success of our course

Majority Included:

It made me understand I am responsible for my own education It gave me an academic challenge/high standards to strive for

Many Included:

I valued the instructional variety I valued the intellectual stimulation I valued the intellectual freedom I experienced significant intellectual growth

Important Minority Voices:

I should not have to teach myself

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The third question includes 17 sections (234 student responses) of non-WAWH first-year seminars and 4 sections (69 student responses) of WAWH courses taught by the author from 2014–2017. (In 2013 the questions grouped responses in two-hour categories (i.e., 1-2, 3-4), and starting in 2014 each hour was distinct.) There is no statistical difference when testing if the mean preparation time was the same or not for each group.

Students in the WAWH model reported greater participation during class periods and fewer incidents of coming to class unprepared than students enrolled in other honors first-year seminars. Given the high response of students feeling responsible for the success of the course, this difference may be

NSSE Questions	WAWH FYSs	All other Honors FYSs	P-value
How often have you asked questions or contributed to course discussions in other ways?	very often or often 85%	very often or often 61%	0.000
How often have you come to class without completing readings or assignments?	sometimes or never 94%	sometimes or never 87%	0.033
In a typical 7-day week how many hours did you spend preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing and other academic activities)?	4.78	4.49	0.564

FYS Course Evaluation Questions Applicable to WAWH Outcomes Extent to which this course:	
Stimulated student to intellectual effort beyond that required by most courses	
Inspired students to set and achieve goals that really challenged them	
Found ways to help students answer their own questions	
Gave projects, tests or assignments that required original or creative thinking	
Related course materials to real life situations	
Involved students in hands on projects such as research, case studies or "real life" activities	4.4

attributable to positive peer pressure. The WAWH students perceived themselves to be writing extensively but not having a preparation load materially different from that of their peers.

First-Year Seminar Course Evaluations

Students in the nine sections offered in the first five years of the WAWH model (2008–2012) completed an all-college instrument that included some items correlated to WAWH learning outcomes, but data from other honors FYSs are no longer available for comparison.

Final Essay Elements

Scanning over 200 essays for patterns of response revealed common elements across genres.

Most Frequent Themes

- Sense of accomplishment in completing first semester
- Description of future self, academic and professional goals, including on-time graduation
- Hopes for a healthier environment/ecological sustainability
- Sense of college as a time of personal growth/description of personal transformation
- Goals of studying, attending class, achieving and learning to meet one's own standards as opposed to those of parents or teachers
- Assertion that it is okay not to know what you want to do with/for the rest of your life
- Confirmation that going to college was the right choice

Most Common Advice

- Take responsibility for finding your own path/making your own education meaningful
- Stop doing the minimum for a grade and learn to labor to capacity for yourself
- Engage in curricular and extracurricular pursuits that give pleasure, not just points for admissions officers or résumés

- Do not be ashamed of your enthusiasms; love what you do openly
- Take academic and emotional risks instead of protecting a grade point average or ego
- Learn to learn from rejection, failure, and disappointment
- Form relationships with faculty and students
- Become an agent of change
- Live with and learn from others who are not like you

The preponderance of students imagining their post-college selves in their first semester aligns with Cobane and Jennings' work on the intentional layering of high-impact practices to help honors students actively plan a personal educational path that leads to the future self they envision.

Some students used the final essay as an opportunity to synthesize what they learned in the seminar and assess its utility in preparing for other endeavors. Samples from their reflections are included to offer a sense of how they perceive the course's impact on their first semester of college. Students' names have been changed with their permission to preserve their privacy.

College has illuminated what I value and prioritize in education.... Experiential education has become a priority for me, as well as learning, writing and completing assignments about issues that are relevant.... I realize how vital it is to have diverse narratives rather than one-dimensional discourse in class. Robust, meaningful conversation is elicited when there is equal effort on the behalf of students and professors to vary teaching styles and discussion formats.... The way I envision college has morphed. I believe that college is an institution for life readiness. (Meghan)

By contrast, some felt transformed from the forever-future orientation of K–12 education and the college admissions process to engagement with and presence in the moment. "When I got here I was convinced that I was here because I wanted to learn and prepare myself for the future. After a lot of thinking and a lot of homework, I realized that I am here to prepare me for *now*" (Andre).

Several students expressed concern over the sustainability of the environment and worry about the impact of technology on young people's abilities to form and sustain personal relationships, but most who mention concerns also express a sense of agency and a desire to intervene in contemporary issues. One of the most powerful things I learned is that youth can act as agents of change. While I always knew in the back of my brain that I had the power ... I didn't really believe it until taking this class. I was inspired by Craig Kielburger, who... said youth need to realize that we can play a positive role through very simple, very concrete, actions. ... [I]t reminded me that you don't have to be some superhero... you just have to take small actions. I will aim to take action for change whenever possible, and not sit idly by, in the future. (Charise)

Though the students generally complain about the difficulty of reading excerpts from Cardinal Newman's "The Idea of the University," many attribute to it the spark for intellectual epiphanies. They understand his assertion that the purpose of college is to develop the integrative or synthetic habit of mind: the ability to make connections between what they have learned and are now learning.

Integrative thinking just got very real for me. In Western Religions class one day, the connections I was making between my all classes came to the front of my mind after we began discussing the poetry of Theodore Roethke, whom my poetry class just studied. I was bridging gaps between the logical arguments about free will or God in philosophy with the topics in religions class and my Honors first-year seminar. As my learning increases . . . my understanding of the world and others increases. . . . I found that the more I integrate my learning to a world that is inherently integrated, the more I am able to understand. (Lucas)

Reflective Practice

Students in the WAWH seminar, who received explicit instruction in reflective practice, reported improved ease in completing reflections on artifacts in their electronic portfolios but not improvement in their skill. Some also described a sense of satisfaction, mastery, or pleasure from being able to coach friends on how to complete reflections more effectively. The comparative quality of reflections on artifacts between students completing the WAWH seminar and the other honors FYSs has not been assessed.

At the end of their first semester, all students completing the model FYS placed a copy of their final reflective essay about their personal philosophy of education in the capstone section of their honors electronic portfolio, turning the piece into a time capsule of their first-year self. Some seniors have

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reported that the final essay helped them write their capstone reflection, but more described the experience of rereading their original manifesto as a generative prompt to reflect on how much they had matured as people and as scholars. One student wrote, "You always told us to be kind to the person we were, because she got us to the person we are today. When I re-read my philosophy of education, I got to visit her! I can afford to be kind about her ignorance now, because I know more." The majority who reported that the course helped them clarify their beliefs, opinions, and sense of self may not see that this clarity may be attributable to the reflection required by the course.

Campus and Global Engagement

Over the decade under study, the WAWH model seminar became a known feeder program for student leadership positions. Though we do not collect data on campus employment of students in the model seminar, and honors students have a reputation for being more engaged, WAWH seminar alumni are well-represented in paid positions in campus life and academic affairs, such as orientation leaders, resident assistants, student leadership consultants, president's hosts, peer career advisors, peer success coaches, writing center consultants, and tutors. Course alumni also rise to positions of leadership in student government, including a former student body president, and they populate the executive boards of many of our student organizations, some of which have service and social justice agendas. Over a dozen have won the two highest campus life awards. Many have gone on to graduate studies and careers in student affairs.

Honors admits 120 first-year students per year. Within the years under study, 4 of the 25 students at our institution who have been awarded Fulbright scholarships have been WAWH alumni compared to six honors students from all other first-year honors seminars combined and 15 non-honors students.

Scalability and Spin-off Courses

Cobane and Jennings note that "[h]onors has a long tradition of being a place for pedagogical and co-curricular experimentation," and that many of today's recognized high-impact practices emerged from honors programs (43). In keeping with this tradition, perhaps the greatest testament to the WAWH model's utility is the extent to which the model course has been adapted and scaled for other populations and the number of student-led courses that it has

spawned. WAWH was taken as a prototype for the creation of a one-credit gateway course for undecided/undeclared students. That course is focused on helping students develop an academic plan for the curricular, extra-curricular, personal, and professional experiences they want to have in college; cultivate decision-making skills and personal knowledge about their decision-making process; learn how to research majors, minors, and potential career interests; clarify their values to make academic and professional choices that align; and articulate a personal philosophy of education to guide decisions over the next four years. This course enrolls approximately 200 students per year in 12 sections taught by faculty from across the college and is entering its ninth year. Unlike the statistically insignificant retention rates of students completing the first-year honors seminar, students who complete the 1-credit course have a 10% higher retention rate than undeclared students who do not.

The students themselves also saw the potential to take the WAWH model in new directions. For their synthesis project, an English teaching major and an integrated marketing major developed a curriculum for a one-credit honors seminar using contemporary feature and documentary films to study issues of equity and problems within K–12 and higher education in the U.S. They secured a faculty sponsor to serve as "instructor of record," obtained permission from the honors program, co-led the course according to the principles of teaching-to-learn that they had experienced in their first-year seminar, and then trained two new students to assume leadership the following year. In a subsequent semester, a politics major and a physical therapy major designed a one-credit honors seminar using the *Dark Knight* trilogy of films to study issues of power and justice, which constitute one of the themes in our general education curriculum. The culminating event of this course, which was offered by five different student leaders over three years, was a researched and argued trial of Batman. The course registered to capacity in all three years.

Between the two extremes of students leading in a faculty-designed course and a fully student-designed and -implemented course lies a third fruitful configuration. A faculty member proposed a hybrid in which faculty and students collaborated on the content for a one-credit honors seminar on politics and protest in contemporary music. On day one, the professor presented a menu of genres and political issues, with potential music, media, and readings for each unit. The students nominated additional genres and issues for consideration and voted to determine the units that the course comprised. In the first year, students added only two units to the final syllabus. In the second, students proposed half of the selected units. In all units after the BLEICHER

original one demonstrated by the professor, students curated the contents and assumed leadership of the course from the third week onward. Course ownership was accelerated by the presence of experienced alumni from the WAWH seminar who brought their expertise to the classroom.

IMPLICATIONS FOR HONORS PROGRAMS AND INSTITUTIONS OF HIGHER EDUCATION

The first-year seminar model Why Are We Here? can be useful for students across the academic spectrum and at a variety of institutions. All contemporary students, attached as they are to technological devices that mediate both self-image and social interactions, would benefit from guided self-examination and instruction in reflective practice. Further, in an era when access to education is increasingly portrayed as a right or at least a universal good, institutions need to help students develop, articulate, and act on a sense of purpose.

Critical University Studies has the potential to lend to honors programs a form of universally applicable content that can serve institutions' interests in both student success (including academic challenge, induction into collegiate study, and metacognition) and institutional success (such as curricular integration and coherence and inquiry-based structural metacognition). Perhaps the greater contribution is the way in which CUS can secure identification of honors programs as incubators for academic solutions. The criticism that honors programs are educational units without a subject is false; our subject is enhanced education.

The Why Are We Here? model is an intentionally constructed intervention in young learners' attitudes and habits of mind at the outset of a long process that is notorious for not offering a guaranteed outcome. The model offers a way to construct a foundation for a fully realized four-year experience that incorporates critical self-examination as a regular practice within the honors program and the college. If the honors first-year seminar is "Why Are We Here?," the senior capstone could be "What Did I Do?": a guided reflection on the intellectual journey from orientation to commencement that enables students to understand what they know, how they learned it, who they were, and who they have become at our institution.

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The author may be contacted at

ebleicher@ithaca.edu.

A Potential for Improving Honors Retention with Degree Planning

Teddi S. Deka

Missouri Western State University

Abstract: Students who begin in honors do not always complete program requirements. As an investigation into student retention, the author introduces a degree-planning workshop into a freshman seminar. The study involves two groups of students from different incoming classes: one (2018) participating in their degree-planning through the workshop and the other (2015) not. Students (n = 150) were compared against three retention criteria based on successive enrollment and withdrawal. Chi-square analyses reveal significant differences only for program withdrawal, indicating that those completing the workshop were less likely to be removed from the program due to lack of progress. The workshop group (2018) showed higher levels of voluntarily removing themselves from the program than the non-workshop (2015) group. Seminar materials, procedures, and learning outcomes are presented. Implications for future research involving additional student populations and achievement variables are discussed.

Keywords: student retention; student attrition; degree planning; guided pathways; Missouri Western State University Honors Program

Two fundamental goals of honors programs are to provide academic enrichment and to ensure that students complete a course of study that makes full use of this enrichment. Enrichment experiences can include completing smaller and more focused classes, honors-only seminars, opportunities for research, outreach or study abroad, and working more closely with professors. The goals of enrichment and completion are intertwined: if the program fails to retain, then it fails in academic enrichment (Goodstein & Szarek, 2013). Completion rates in honors programs can be as low as 30%

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(Goodstein & Szarek, 2013) and as high as 87% (Willingham, 2018). Programs vary in so many factors, from program structure to student admissions requirements, that it is difficult to pinpoint the factors that matter most for retention.

Honors retention is an important focus of study because participation in honors programs benefits the entire university. Participation in honors promotes higher GPAs, retention at the university, and four-year graduation rates at less selective universities (Bowman & Culver, 2017). Honors students bring both tangible and intangible benefits to an institution, including research, scholarly presentations, publications, campus involvement, leadership, and outreach experiences (Johnson & Valentine, 2015). Losing students from honors comes at a cost to future students, to the faculty who teach in the program, and to the university's investment in the program (Goodstein & Szarek, 2013).

Typically, students who begin in an honors program but do not complete it succumb to one of the following hurdles: completing a set number of honors credits, a minimum GPA, and perhaps a capstone experience such as a thesis. Goodstein and Szarek (2013) suggest other reasons such as not having the best classes or other experiences to hold students' attention and requiring too much work to achieve honors benchmarks.

"Lack of progress" (LOP) means that students begin taking classes required for the program but then do not enroll in the future honors coursework needed to achieve the honors degree. These students have the GPA to remain in the program but often find themselves in a predicament. More students than ever are coming into honors programs with IB, AP, and DC coursework, leaving fewer classes required to complete honors. Without careful planning and consultation, students may be in an impossible situation to complete the program's requirements in a timely manner, yet honors students are often left out of classes offering intensive planning or advisement because they are thought to be good planners already (Clark, Schwitzer, Paredes, & Grothaus, 2018). Honors programs often fail to recognize that honors students need help in planning how to complete the requirements for their majors and minors as well as honors courses.

The guided pathways model emphasizes sequencing courses, advisement practices, and encouraging program entrance as soon as possible (see Bailey, Jaggars, & Jenkins, 2015), and it centers on three key features:

1. providing clear roadmaps to student end goals such as course sequencing,

- 2. creating on-ramps to programs of study such as creation of an academic plan, and
- 3. embedding tracking and support through advisement. (Jenkins & Cho, 2014)

The primary focus of the model is early major selection and progress through general studies and major requirements. The problem with guided pathways is that it can increase pressure on students to complete general education requirements before entering college, creating difficulty for honors students to complete honors general studies classes with the "room they have left" (Pressler, 2019). The model can also decrease motivation to complete an honors program since it typically requires extra coursework, thus delaying graduation. However, guided pathways can also be positive for honors students, encouraging planning and sequencing to make sure they take classes when they should and complete the coursework needed for their degrees. College students report positive impressions of programs that include educational planning (Fink, 2017).

Missouri Western State University (MWSU) employs many of the guided pathways strategies with the student body. In line with Jenkins and Cho (2014), all programs have a four-year plan of suggested coursework to encourage advanced planning. Students must meet with their academic advisor—a faculty member within their intended major—before registering each semester and continue working with the same advisor throughout their entire course of study unless they change to a different major or select a different advisor. While advisors may differ in approach or strategy, they have ample opportunity to forge strong relationships with advisees and provide individualized assistance (Huggett, 2004). Our university also provides a degree-planning workshop, hosted by our Center for Student Success (CSS) that helps students plan classes for all four years.

Degree planning, as described by Jenkins and Cho (2014), is an on-ramp to programs of study, and the university has designed a workshop that motivates planning for classes now and in the future. This workshop takes place in the University 101 class for first-semester freshmen. The class is not mandatory but highly recommended. With few exceptions, honors students do not enroll in University 101, but almost all honors students complete the honors seminar that is offered to first-semester honors students.

In 2017, the honors program began offering a degree-planning workshop in the first-semester honors seminar courses in conjunction with the CSS. The workshop entailed two fifteen-minute class visits by the honors director

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early in the semester and then a whole class period in a computer lab staffed by CSS advisors. Below I describe the workshop materials and procedures and then the outcomes for LOP and retention in the honors program.

METHOD

Participants

First-semester freshmen accepted into the honors program are placed into one of five two-credit freshman honors seminar classes, capped at 18 students. Transfer students are not eligible to enroll in freshman seminar. Each seminar class centers on a theme within the instructor's discipline, incorporating general studies skills and critical thinking about contemporary questions and issues. Broad goals include mastery of course materials, communication skills, creativity, integration, personal growth, and self-directed learning.

These freshman honors classes provide an opportunity to offer common, in-class workshops. The current analysis compares freshmen in the incoming class of 2015, which had no workshop, with freshmen in the incoming class of 2018, which did include the workshop. These classes were selected for comparison because they were equivalent in the number of seminars offered (five) and other variables collected at the time of the students' entry into the university. Both classes included students about whom we had data from three semesters, which represents the time period of highest withdrawal rate from our honors program (see Table 1).

Variable	EY2015	EY2018
Males	40	33
Females	35	42
Total Students	75	75
	Mean (Standard Deviation)	Mean (Standard Deviation)
ACT		
ACT Weighted GPA at Entry	(Standard Deviation)	(Standard Deviation)

TABLE 1. ENTRANCE VARIABLES FOR THE 2015 AND 2018 INCOMING CLASSES

Note: Number of college courses signifies AP, IB and DC classes completed before attending the university, which were counted toward general studies requirements.

Materials

The degree-planning workshop built into the 2018 seminar included use of materials regularly provided to the student body:

- The major/minor form: Most universities have major/minor forms outlining which classes are needed to complete a degree in each major.
- The sample plan: Some universities also offer four-year sample plans, containing classes semester-by-semester that the typical student could complete to achieve the degree in four years.
- The honors course rotation: Honors programs often have agreements with departments for when general studies courses will be offered as honors. These rotations are helpful for honors students with tight schedules.
- Honors program benchmarks: Honors programs have varying requirements for achieving honors. These requirements should be made available to students for the degree-planning workshop.
- The degree-planning worksheet: This is a Word file that has columns for several semesters and rows where students can indicate which classes they have taken or are planning to take along with credit hours. An electronic form is most helpful since it allows for easy modification and sharing while also retaining print capabilities for reference. A blank degree-planning worksheet is available at <<u>https://docs.google.com/</u> <u>document/d/1v4FdmMxRLSnLuwd3a7wuOp3X3MoIv-lo9CH8-</u> <u>TIsOYI/edit?usp=sharing</u>>, and an example of an actual student's first two years of degree planning using the worksheet appears in Figure 1.

Procedure

The degree-planning workshop includes three classroom sessions. During the first week of the semester, the honors director visits each seminar class for a fifteen-minute session to explain the honors program benchmarks (six general studies honors courses and three seminar courses) along with the honors course rotation. The director shows students how to use the online system listing current and past classes as well as needed future classes. The director also shows students how to find major/minor forms and sample plans. The first assignment for students is to find a major form that most closely matches their intended or potential major and the corresponding Deka

sample plan. Students print these out and bring them to the next session, which takes place the following week.

During the second fifteen-minute session, the honors director shares the degree-planning worksheet electronically with the class and brings hard copies. Students begin by listing all their completed college-level classes in column 1 of the degree plan. Next, they list all their current classes in column 2. The

FIGURE 1.	EXAMPLE OF THE DEGREE-PLANNING WORKSHEET
	(First Two Years)

	ŀ	Advisement Gradua	tion Planne	er		
Date:		Name: Anonymous Student		G#:		
First Major: Psychology		Second Major (If Applicable): Minor (If Applicabl Criminal Justice Spanish		Minor (If Applicable): Spanish):	
Semester: High School	Year:	Semester: Fall	Year: 2017	Semester: Spring	Year: 2018	
Course	Credits	Course	Credits	Course	Credits	
BIO 105	5	ENG 112-03 (HON)	3	PSY 200	3	
ENG 210	3	SPA 302-1	3	HON 395-02	2	
HIS 010, 140, 150	9	HON 195-02	2	THR 113-80 (HON)	3	
PSY 101	3	MAT 112-03	3	SPA 310	3	
SPA 100, 101, 200, 201	12	PED 158	1	CHE 104	5	
		Griffon Edge	1			
Total Hours	32	Total Hours	13	Total Hours	16	
Semester:	Year:	Semester: Fall	Year: 2018	Semester: Spring	Year: 2019	
Course	Credits	Course	Credits	Course	Credits	
		COM 104 (HON)	3	ART 100 (HON)	3	
		PED 101 (HON)	3	SOC 110 (HON)	3	
		PSY 300	3	PSY 303	3	
		PSY core	3	PSY core	3	
		PSY core	3	PSY core	3	
Total Hours		Total Hours	15	Total Hours	15	

director presents a PowerPoint that shows completed and current classes and a sample plan for a hypothetical student, Job Weldon (job well done). This PowerPoint is available at <<u>https://docs.google.com/presentation/d/1nfG</u> <u>3M6Vtzgfnrw0LqFO7mTDkDMJcETLyF84fdZ38RxY/edit?usp=sharing</u>>. The director then shows Job's major form with completed and current classes crossed off followed by the the sample plan with the completed and current classes crossed off. Students are asked to cross off completed classes and current classes on their own forms and then examine what classes remain on their sample plan for the freshman year. Students work on creating a schedule for the following semester during this visit, incorporating at least one honors course. Students are asked to bring all these materials to the third session, which is held during week four or five of the semester.

For the third session, students meet in a computer lab, staffed by our Student Success advisors, the honors director, and the instructor. During this session, students try to plan ahead as far as they can on their degree-planning worksheet. Students can receive guidance from advisors who are knowledgeable in major requirements across several disciplines. This workshop takes place before students visit their assigned advisors within their academic departments to schedule classes for the following term so that they can share the degree-planning document and gain meaningful advice from these advisors as well as the honors director.

Students participate in the workshop as part of their freshman honors seminar class. The goal is to produce a degree-planning document that contains the student's general studies, major, minor, and honors courses for their entire course of study. Each student had access to the fillable Word document, which can be easily shared with academic advisors and modified if need be. Students are not graded on the workshop and do not provide a separate assessment of the workshop.

RESULTS

The success of the program was measured by comparing two groups of freshmen—the entering classes of 2015 with no workshop and the entering class of 2018 with the workshop—across three variables: enrollment in at least one honors class in the second semester; enrollment in at least one honors class in the third semester, and removal from the honors program within the first three semesters due to lack of progress (LOP). These variables were selected because they could be collected from both groups (the 2018 group had just finished their third semester and were enrolled in their fourth

semester) and the highest percentage of students discontinued participation in the program within the first three semesters.

Chi Square tests of independence comparing enrollment in second- and third-semester honors classes by year of entry and sex indicated no significant differences. The percent of students enrolled in second-semester honors classes increased by 1% when comparing non-workshop to workshop groups (68% versus 69%), and by 3% for students enrolled in third-semester honors classes (53% versus 56%) (see Table 2).

The 2015 and 2018 classes were also compared for removal from the honors program within the first three semesters. Removal occurs as a result of one or more of four criteria: a student's GPA falls below 3.00 for two consecutive semesters; a student does not enroll in honors classes for two consecutive semesters (LOP); a student contacts the honors office requesting to be removed from the honors program (voluntary removal); or a student discontinues enrollment at the university (enrollment). After each semester, students with less than a 3.00 GPA receive an email from the honors office with a warning of their status and encouragement to raise their GPA. Students who do not enroll in honors classes and who have not completed the honors program requirements receive an email encouraging enrollment in at least one honors course. If low GPA or LOP occurs for two consecutive semesters, students are removed from the honors program with one exception: LOP students can indicate plans to complete honors courses even with more than a two-semester lapse, and these students are not removed from the program. Students requesting voluntary removal receive an email from the honors director with a request to ensure careful consideration of removal, but

		2015 (no workshop)			2018 (workshop)		
Enrollment	Sex	Count	n	%	Count	n	%
	М	26	40	65%	23	33	70%
S2 Enrollment	F	25	35	71%	29	42	69%
	Total S2	51	75	68%	52	75	69%
	М	21	40	53%	18	33	55%
S3 Enrollment	F	19	35	54%	24	42	57%
	Total S3	40	75	53%	42	75	56%

TABLE 2. GROUP COMPARISONS BY SEX AND CONTINUED ENROLLMENT	TABLE 2.	GROUP	COMPARISONS	BY SEX		CONTINUED	ENROLLMENT
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Note. Count represents number of students enrolled in honors courses. The percent represents the count divided by the number of students in the category. Analyses indicated no significant differences for sex or workshop participation.

students are not required to provide a reason for removal. Students who do not enroll in any classes at the university for one semester are removed but are also contacted by the honors director with encouragement to request reinstatement if they return to the university. All the emails encourage students to meet with the honors director if they would like to discuss their status.

Students from the 2015 and 2018 entering classes who were removed from the program within the first three semesters were compared by group (no workshop vs. workshop) and reason (GPA, LOP, voluntary removal, enrollment) using a Chi Square test of independence. The significant interaction $(\chi^2 [3] = 22.47, p = <.0001)$ indicated that reasons for discontinuing the honors program differed by group. To determine which of the reasons showed significant differences, each reason was compared by group using z-tests with adjusted probability values (Bonferroni method) to account for type I error. All four reasons were significantly different when compared by group. The workshop group showed significantly lower tendency to discontinue the honors program due to low GPA or LOP when compared to the non-workshop group. However, the workshop group showed significantly higher tendency to discontinue the honors program due to voluntary removal and enrollment (see Table 3). Both groups showed equivalent numbers of discontinuing the honors program at the end of the third semester, with n = 25 (no workshop) and n = 24 (workshop).

If honors students request removal from the program, they are not required to provide a reason, but they are asked why and often respond. For

Reason		2015	2018	Total
GPA	Count (percent)	11 ^a (84.5%)	2 ^b (15.5%)	13 (100%)
GPA	Expected	6.6	6.4	
LOP	Count (percent)	9ª (90%)	1 ^b (10%)	10 (100%)
LOP	Expected	5.1	4.9	
Vol. Rem.	Count (percent)	$3^{a}(20\%)$	$12^{b}(80\%)$	15 (100%)
voi. Kein.	Expected	7.7	7.3	
Enrollment	Count (percent)	$2^{a}(18.2\%)$	9 ^b (81.8%)	11 (100%)
Emoliment	Expected	5.6	5.4	
Total		25 (51%)	24 (49%)	49 (100%)

TABLE 3. GROUP BY REASONS NOT RETAINED IN THE HONORS PROGRAM

Note. Count indicates the actual number of honors students removed from the program by reason. Column count/percent with different superscripts are significantly different, determined by post-hoc z-tests adjusted for type I error (Bonferroni method).

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the three students in the no-workshop group, one provided no reason, one wanted to prioritize classes within the major, and one did not want to pay to take the honors seminars. For the twelve students indicating voluntary removal from the workshop group, four expressed concern about maintaining a good GPA for acceptance into their major program, two wanted to graduate in a timely manner, two stated that none of the honors classes pertained to their major, one noted scheduling problems, one was struggling with maintaining the minimum GPA, one indicated personal reasons, and one did not indicate a reason.

DISCUSSION

Although honors programs vary in many ways, they have the two fundamental goals in common: to provide an enriching educational experience and to increase student retention (Goodstein & Szarek, 2013). Retention in programs has been challenged by two current trends in education: completion of college classes while attending high school and motivation to complete college degrees in the shortest amount of time possible. These motivations are addressed by the guided pathways model (Bailey et al., 2015) and can be acknowledged by allowing students to register early in order to fit needed classes into their schedule and by helping them map out their future course of study rather than assuming that honors students are good planners who do not need assistance (Clark et al., 2018).

The current research study introduced another way to encourage honors student retention: conducting degree-planning workshops to help them plan out their future course of study. Such workshops were already being held for non-honors students enrolled in University 101 at MWSU by our professional advisement staff, so extending workshops to honors seminars involved minor adjustments to include honors materials. While two well-matched entrance-year honors classes showed no significant differences in secondand third-semester retention in the honors program when non-workshop and workshop students were compared, and while both classes lost approximately 25 students within this time frame, the reasons they were not retained showed significant differences.

Lack of progress (LOP) was specifically targeted in this research. Honors students who are in good standing but do not enroll in honors classes for two semesters are considered LOP. Better planning through the degree-planning workshop was specifically employed to decrease LOP in our program. However, while workshop students showed lower levels of removal due to GPA and LOP, they showed significantly increased levels of voluntary removal from the honors program and non-continuance at our university. Two questions arise from this finding: Did this increase come about because of participating in the workshop, and is this result positive or negative?

The answer to the first question is possibly yes. The workshop provides a time to discuss the future and how all requirements are going to fit together. By mapping out classes, some students become aware that perhaps the honors requirements are difficult or impossible to meet without extending the time to complete their degree or that they are not willing to complete such requirements. Students who were voluntarily removed expressed concern about maintaining a good GPA to get accepted into their major and wanting to graduate as soon as possible, indicating their awareness of tracking: those who are not accepted into their majors right away face possible delays in graduation. One of the risks of guided pathways is that students will say "no" to honors due to concerns about their progress (Pressler, 2019). This result inspires development of flexible honors programs that can meet educational goals of enrichment without minimizing the honors experience, and it also indicates the need to promote the importance of honors education.

For the second question about whether voluntary removal and noncontinuance are negative or positive, the conclusion is most likely positive. LOP is a greater disadvantage to honors programs than voluntary removal because assessing whether students are not progressing takes time and staff. Many honors programs afford benefits to honors students such as scholarships, early enrollment, and honors housing; if students no longer progress in honors but have not been identified as LOP, they may continue to receive undue benefits. Voluntary removal can be handled more efficiently and can also facilitate future course scheduling such as identifying how many seats are needed in honors courses in subsequent semesters.

LIMITATIONS AND PLANS FOR FURTHER RESEARCH

The analysis presented here represents only the beginning of a long-term research project investigating the benefits of including degree-planning workshops. The study compares students who did not complete a degree-planning workshop with those who had within their first semester at the university and then tracks whether they continued to enroll in honors classes as well as the reasons they left the program. This time frame encompasses when MWSU loses the most students from the honors program, which is within the first three semesters. As the entry year 2018 class continues to progress, other

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variables will be available to include in the analysis. One such variable will be achievement of General Studies Honors, in which students complete six of their general studies classes as honors and take three honors seminars, earning A's or B's in these classes and maintaining a minimum GPA of 3.25. Most students complete General Studies Honors within five semesters. Another variable for consideration is earning honors in the major, which is a collaborative venture between the student's department and the honors program that involves additional coursework within both, culminating in an honors thesis and a presentation at a regional or national venue. The current research did not formally assess students' progress in the workshop or ask them to evaluate the workshop, and these variables will also be taken into account with the development of further research.

Future directions also include support, particularly through individual advisement, in staying on track with degree plans. Currently, the honors program does not monitor whether the degree plan has been shared with the students' individual advisors. Beyond creation of the academic plan, tracking and support for following or modifying the plan takes place with the academic advisor, which is the third feature of guided pathways according to Jenkins and Cho (2014). Communication between the honors program and the academic advisors will yield additional variables of study.

CONCLUDING STATEMENT

Including the workshop proved to be beneficial in some ways to our program; it did not yield all the intended results, but it took little effort to implement and encouraged good discussions from students about planning for their future semesters. Honors advisors recognize the importance of degree planning, especially for students entering college with advance credits (Johnson, Walther, & Medley, 2018). In helping these students and others, degree-planning workshops may be one way to focus attention on mapping out honors achievement along with general studies and major classes. Future research will focus on ways honors programs can work within the guided pathways model to promote retention and achievement of honors students.

ACKNOWLEDGMENT

The author thanks Elaine Bryant, Director of Student Success, and the advising team—Derek Evans, Cathy Gann and Dan Stevens—for hosting the degree-planning labs and their support of our honors program.

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The author may be contacted at

deka@missouriwestern.edu.

A Meaningful and Useful Twofer: Enhancing Honors Students' Research Experiences While Gathering Assessment Data

MARY SCHEUER SENTER

Central Michigan University

Abstract: Engaging students in assessment practice benefits honors students, faculty, and administrators. Students gain meaningful research experience while honors programs receive data to help assess student learning and prepare for program review. A one-semester course, Program Evaluation Experiences, tasks students (n = 10) with collecting and analyzing data from peers and faculty and then articulating its value for their personal academic development. Qualitative and quantitative instruments and measures include an online survey (*Qualtrics*), personal interviews (*Rev*), and focus groups (rev, n = 30). Students complete various analyses of data using *SPSS* and *NVivo*. Results indicate that students' active participation in applied research methods for program assessment benefits both student and program and, because anchored in student experience, helps to reveal data that might otherwise remain unexpressed. The author asserts that this type of hands-on learning provides honors students with a wide range of practical experience not offered in non-honors curricula. A short history of program assessment in honors is provided.

Keywords: student engagement; high-impact practices; program evaluation; effective teaching; Collaborative Institutional Training Initiative

Honors programs and their faculty must devote time and attention to the assessment of student learning despite strong reservations about the value of these efforts given the time and methodology involved (Carnicom and Snyder 2010; Digby 2006; Freyman 2006; Mariz 2006; Otero and Spurrier 2005). Honors students can, however, be actively involved in collecting and analyzing data that the honors program can use to document student

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learning and to bolster arguments for administrative support during program reviews. What I describe is, hence, a two-fer: a course that provides meaningful enhancement of students' research skills and that creates data for justifying and improving the honors program.

ASSESSMENT IN HIGHER EDUCATION

Researchers at the American Sociological Association argue that by 2011–12 the "assessment of student learning was a universal activity for sociology departments" (Spalter-Roth, Kisielewski, and Van Vooren 2013: 11). One assumes that other academic units have had similar experiences because all the regional accrediting bodies for higher education and many of the specialized accrediting bodies mandate that programs document the extent to which students are meeting the learning objectives that faculty establish for them (Ewell, Paulson, and Kinzie 2011). Certainly, honors programs are not immune to this call; in fact, a special issue of the *Journal of the National Collegiate Honors Council* fully thirteen years ago included nine essays in its "Forum on Outcomes Assessment, Accountability, and Honors" (cited in Driscoll 2011), and the National Collegiate Honors Council published a monograph on the topic of assessment and evaluation in 2005 (Otero and Spurrier 2005).

Meanwhile, it is an understatement that not all faculty have embraced assessment with enthusiasm. Faculty criticism of assessment focuses on the top-down, bureaucratic nature of many assessment initiatives; on threats to academic freedom in reducing faculty prerogatives to evaluate students learning on their own terms (often by grading); on the extra (uncompensated) work required; on the suspect methodology underlying some data gathering for assessment; on the disconnect between assessment findings and administrative efforts to improve students' experiences; and on the divide between institutions that easily document the success of their already well-prepared students and those that struggle serving students who enroll with limited college preparation (Eubanks 2018; Gilbert 2016; Lederman 2019; Snyder and Carnicom 2011; Worthen 2018). Honors faculty, in particular, are concerned that the kinds of educational growth promoted by honors programs are not easily documented, requiring sophisticated qualitative analyses rather than the more common quantitative analyses and standardized testing found in many assessment studies (Frost 2006). Honors faculty have also argued that the transformational learning resulting from involvement in honors programs is best recognized later in life when students, as graduates, assume positions of civic responsibility (Digby 2006; Freyman 2006; Mariz 2006).

Counterarguments exist, of course, with some authors arguing that the honors community should not just embrace but take the lead on evaluation and assessment, in part as a defense against the imposition of standardized testing (Wilson 2006); Achterberg (2006: 39) argues that "honors cannot survive the future on anecdotal evidence." Several scholars provide concrete suggestions for implementing an assessment program for honors (Wilson and Perrine 2005; Lanier 2008) or for embarking on an effective honors program review (Smith 2015). Jones and Wehlburg argue that we need to know what students are learning "to know what needs to be modified or changed" (2014: 19).

While not ignoring criticism of mandated evaluation efforts, I have argued elsewhere that assessment can be made manageable and meaningful and that the best assessment activities promote student learning by being integrated into the curriculum rather than a burdensome add-on for faculty (Senter 2001). In making this argument, I assumed that students would be the subjects assessed and that assessment activities would be embedded into their existing coursework. For example, in a capstone course, students might complete research projects that faculty would evaluate for assessment purposes. The case I make now, however, is that students can also be directly involved in the creation of assessment instruments and gathering of useful data and that these student-focused activities can form the core of an honors course for undergraduates. Further, students can be guided to gather both qualitative and quantitative assessment data as a lesson in good research practices that use multiple sources. In this way, students are modeling and learning a multi-method program evaluation approach that draws on the strengths of each data-gathering technique. If student involvement in assessment activities can lead to enhanced student learning, then even the most strident critics of assessment might see some positive element in the enterprise.

My semester-long class for honors students, which both introduced them to program evaluation and collected valuable data for program assessment and review, illustrates a positive assessment practice. The two-fer is that while the students engaged in assessment were in a learning-rich setting, the honors program faculty and administrators were relieved of some of the burden of collecting and summarizing assessment data.

THE CONTEXT AND THE COURSE

The Central Michigan University (CMU) Honors Program, founded in 1961, enrolls approximately 800 students or about four percent of the

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undergraduate student body. Most students (85%) begin the honors program as first-year students although some students enter the program as transfer students or after completing their first year at CMU through the honors Track II admission process. The honors program, like all academic programs at the university, is required to submit assessment reports each fall, summarizing the assessment data collected in the previous year and outlining any improvements in the program suggested by the data. Every seven years, all programs go through an academic program review process that requires the creation of a detailed self-study, including assessment findings and a SWOT (strengths, weaknesses, opportunities, and threats) analysis. The self-study, along with a report from an external reviewer, is submitted for commentary to the relevant dean or vice provost and, in the end, to the provost.

The honors program director is a senior faculty member with reassigned time to administer the program. He has extensive experience working with honors students and conducting research on the experiences of young adults. The program reports jointly to the Honors Council, a faculty/student/staff committee of the Academic Senate, and to the Senior Vice Provost for Academic Affairs.

To graduate with honors, students must complete fifteen hours of honors coursework in addition to an introductory course, first-year seminar, senior project, writing course, and other cultural diversity and service requirements. The fifteen hours of honors coursework can consist of special sections for honors students offered by departments, such as an honors section of Foundations of Cell Biology offered by the biology department or Women and Politics offered by the political science and public administration department. Alternatively, students can complete special topics courses offered by the honors program. Faculty throughout the university, such as myself, can propose these special topics courses and are encouraged to develop courses that would not typically be offered through one academic department. Courses that use high-impact learning practices and include experiential learning activities are most likely to be selected for inclusion in the honors course schedule.

As a sociology faculty member, I usually teach courses in social inequality and research methods required for sociology majors. In spring 2019, I had the opportunity to teach Program Evaluation Experiences, the course discussed here, which was one of four such special topics available in honors. Students were recruited to the class, which counts as three of the required fifteen hours, with a description stressing that program evaluation is "a specialized form of research that is designed to answer questions" and that it allows practitioners to evaluate whether "the program you run now, or want to run someday, is really doing what it is supposed to." The description stressed that students would be actively engaged in all components of program evaluation "from interviews with key stakeholders to a final presentation of results" and that students would be "given the opportunity to help the honors program address a wide array of questions posed by the Honors Council, honors office, and of course—students themselves." Students were assured that "the results from evaluation activities [would] also be utilized in a more formal program review targeted for completion next year with the goal of improving our program."

The objectives of the course dovetail well with the CMU Honors Mission Statement (Honors 2019), which commits the program to "providing high academic ability students with unique educational opportunities and experiences" and to challenging "students to aim higher and to achieve more academically, personally, and professionally for the greater good of our disciplines, our society, and our world." No honors course focused on program evaluation had been offered in the past, making this course unique. In addition, no class had afforded students the opportunity to assist the honors program by being actively involved in gathering and analyzing data for program review or assessment, allowing them to work for the betterment of the program itself.

Ten students enrolled in the course. They ranged from sophomores to seniors, with eight of the ten students majoring in sociology, psychology, or political science, one student majoring in personal financial planning, and one in philosophy.

The course met in a seminar room twice a week for the sixteen-week semester, with each class period lasting seventy-five minutes. A computer lab was available for some class periods, making it possible for students to learn appropriate software (SPSS for quantitative analysis and NVivo for qualitative analysis) and to work on their final papers. The only constraint on data gathering established by the honors director and me prior to the beginning of the class was that students would conduct a quantitative survey, qualitative interviews, and one or more focus groups.

COURSE OUTLINE AND ACTIVITIES

Pedagogy and Foundational Readings

The pedagogy for the course included a variety of high-impact practices. Students engaged in "collaborative assignments and projects" designed

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to help them learn "to work and solve problems in the company of others." Further, they completed real-world "undergraduate research," with the goal of involving them "with actively contested questions, empirical observation, cutting-edge technologies, and the sense of excitement that comes from working to answer important questions." Finally, their activities can be conceptualized as a kind of community-based learning if one defines the honors program as one of these students' relevant communities: students had the opportunity "to both apply what they [were] learning in real-world settings and reflect in a classroom setting on their service experiences" (Kuh 2008).

Given the diverse backgrounds of enrolled students, all students needed a basic background in social science research and, in particular, in the ways that program evaluation—with its applied, real-work focus—differs from traditional academic research. Students were assigned a short textbook that emphasized "small-scale evaluation" (Robson 2017), a primer on conducting online surveys (Sue and Ritter 2012), and a selection of articles on qualitative interviewing (Esterberg 2002), focus groups (Berg 2009), and the honors program itself.

The course began by laying the groundwork for data collection while students worked concurrently to develop the outline of topics to guide their program evaluation. They then worked collaboratively in teams to develop the specifics of their research designs. The last sections of the course focused on data collection, followed by data analysis and report writing.

Laying the Groundwork for Data Collection

Much, but not all, of the class time during the first eight weeks of the course was consumed with lectures and discussion based on the readings. Course topics included:

- what is program evaluation and why do we do it;
- engaging stakeholders;
- ethics and politics;
- types of program evaluation;
- methods of data collection;
- issues of sampling;
- quantitative and qualitative data preparation;

- quantitative and qualitative data analysis (including instruction in SPSS and NVivo); and
- report writing.

The latter topics of data analysis and report writing occurred in the eleventh and twelfth weeks of the course as students were in the process of gathering their quantitative and qualitative data.

Meanwhile, given the constraints of a sixteen-week semester, students needed to begin to design their honors program evaluation while the substantive background was being laid in class. Hence, a tension existed throughout the course between academic preparation or context and the actual activities of conducting an evaluation project (Mallin 2017; Monahan 2015). Students' first assignment, due at the beginning of the third week of class, required them to complete the nationally recognized, online training offered by the Collaborative Institutional Training Initiative, which focuses on protecting human research participants.

Creating Outlines of Topics to Guide Program Evaluation

Given the open-ended nature of the evaluation, students needed to develop an outline of topics that would govern their efforts. In addition, they needed to remain aware that they were conducting a real-world evaluation for a real client. While the client for this evaluation was the honors program, students needed to think through the issue of who, besides the honors director, the clients were. Through brainstorming in class, they developed a list of clients that included faculty and staff who were members of the Honors Council and the associate directors and staff of the honors program. Students were not viewed as clients at this point in the process because their opinions and experiences would be captured through the surveys, interviews, and focus groups. Senior administrators such as the provost were not seen as clients because they already had substantial input into the organization of program reviews and the necessary components of the required self-study. Non-honors students, faculty, and staff were not included because of time constraints although their absence led to a useful discussion about the limitations of the evaluation.

Then, working in teams of two, students completed two or three interviews of clients, who were asked what they would like to know about the honors program as well as topics, if any, that should not be included because the information was already available or because of political issues within the institution. I compiled the students' work into a single document and distributed it to them.

By the beginning of the fifth week of the semester, students completed a summary of the "questions/topics that interest many of our clients," the "questions/topics that interest a client but . . . that we really cannot address through this class," and additional topics/questions that they themselves would like to answer. For each general topic, the students were asked whether a student, faculty member, staff member, or administrator was "in a position to answer the question that the client would like answered." They were also asked whether it would "be best to gather this information through a survey that yields quantitative data ('which category fits you best') or through more open-ended qualitative methodologies such as focus groups or qualitative interviews (that yield more extensive text)." Again, the responses from all students were compiled, and class time focused on finalizing the draft topic outline along with the methodology to address each topic. The Honors Council then reviewed the draft outline, and the honors director approved it.

Collaborative Methods Design

Students were then assigned to one of three groups, defined by the quantitative, data-gathering methodology of an online survey of honors students, qualitative interviews with honors students, or focus groups with honors students and honors faculty. Students met with their group to assign the following tasks with due dates:

- to develop a budget;
- to flesh out a specific topic outline for their data gathering;
- to secure the sample necessary for gathering relevant data;
- to write drafts of invitations to respondents to participate in the project; and
- to write a first draft of the questionnaire, focus group guide, or qualitative interview guide.

Their first group project demonstrating that these tasks had been completed was due by the end of the eighth week of the class, just before our week-long spring break. Students chose to create GoogleDocs, making it easy for them to share their work with one another and for me to comment on it. I worked closely with each group, helping to ensure approval of the relevant budget from the honors director and helping to secure the relevant samples from honors program staff. I commented extensively on their work so that they were in a good position to make changes when they returned from spring break.

The first tasks after spring break were to execute the changes that I had proposed. In particular, they needed to finalize a working draft of their questionnaire, interview guide, or focus group guide; finalize communication (including informed consent documents) with their respondents/participants; and secure relevant materials (e.g., recorders and water bottles). Class time was used to provide updates on the progress of each group and to work through solutions to dilemmas that arose as students finalized their data-collection plans.

Students then pre-tested and reviewed the work of the two groups to which they did not belong. By the beginning of the tenth week of the semester, they completed an assignment that discussed "the strong points of what is being proposed," "what should be changed" or "is problematic," and "what is missing, given our earlier interviews with our clients and the preferences of students" enrolled in the class. I shared the responses with the student groups in short order so that they could complete their second group project by the end of the tenth week of the semester. This second report was largely confirmation that they had made the revisions requested by me and their peers and that they had completed the work necessary actually to implement their surveys, interviews, or focus groups, including informed consent documents and invitations to research participants.

Quantitative and Qualitative Data Collection

Students then had a two-week period to collect their data. The honors director facilitated this process by writing an email to all honors students telling them to expect communications from their peers about how they could help the honors program by completing one or more evaluation activities. The survey group then sent invitations and subsequent reminders to all honors students asking them to complete the online survey developed through the software package Qualtrics. In the end, 380 questionnaires were completed out of a total of 727 for a fine response rate of 52.5 percent. In addition to demographics, the questionnaire consisted of questions on topics such as these:

- knowledge of program requirements;
- confidence in completing the requirements;
- perceptions of the meaningfulness of each of the requirements "to your personal development";

- ease or difficulty in securing faculty support;
- the difficulties and the meaningfulness of the senior (capstone) project and of other honors classes;
- levels of satisfaction with honors resources and advising;
- the extent of belonging to the honors community; and
- issues related to differences, if any, between the experiences of students beginning the honors program in their first year of college and those joining through the Track II admission process.

The qualitative interview group completed fourteen interviews with honors students, half of whom began the program as first-year students and half joining the program later in their college careers. The interviews were recorded and transcribed professionally by the online service Rev. The interview guide asked for a discussion of the ways the honors program had been "meaningful to you"; the ways, if any, that students felt connected to the honors community; and the ways that honors experiences were different "from what you were expecting." Questions also focused on the introductory course, the diversity requirement, and the senior (capstone) project.

The group charged with conducting focus groups completed three group discussions: one with faculty members; one with students admitted to the honors program as first-year students who had either completed their capstone project or had an approved capstone proposal; and one with students who were admitted to the program through the Track II process. I facilitated a fourth focus group during class time of the students enrolled in the course, the purpose of which was both to collect data and to model good focus group practice. In the end, nineteen students (including members of the class) and eleven faculty members participated in the focus group discussions. The focus group guide for students included many of the questions posed in the qualitative interviews; however, the guide for students admitted to the honors program after their first year of college included questions on why they chose to join the honors program, and the guide for advanced students beginning the program in their first year placed more emphasis on experiences with the senior project. The faculty focus group guide focused on the positive and challenging aspects of working with honors students and with the honors program itself. Faculty were also queried about differences, if any, between the students admitted to the program for their first year and those admitted later in their collegiate career.

Data Analysis and Report Writing

The final three weeks of the semester were devoted to data analysis and report writing by each of the three groups. Students worked with their groups during the regularly scheduled class time, and I was available to provide feedback and support. Students used the software package SPSS to analyze the survey data and the software package NVivo to help with analysis of the qualitative interviews and student focus groups. I wrote the report on the faculty focus group discussion since it was too much to expect those students who had fielded focus groups to complete two separate reports.

EVALUTION OF THE COURSE

There are two ways to evaluate the success of this kind of honors course: assessing the work that students produced and analyzing student feedback on the experience. Both the honors director, a client for our work, and I were impressed with the quantity and quality of the students' work. At the final meeting of the class during the week designated for exams, the director thanked the students for their efforts and noted the utility of their work both for assessment and program review and for ongoing efforts to improve the program. I was also pleased with the quality and outcomes of their work. I had not been convinced at the outset of the course that students would be able to complete all components of a small-scale evaluation; I was sure that they would succeed in collecting data, but I was not confident that they would be able to execute final reports summarizing their findings in the time allowed. The students succeeded well beyond my expectations.

Students provided feedback on the course in three ways: the university's standard end-of-course evaluation instrument, the honors program's end-of-course evaluation instrument, and an open-ended discussion with the director and me during the final meeting of the course. While the students were not asked directly to comment on their learning in the university instrument, they were asked to choose one of five Likert scale agree/disagree categories, including the neutral "agree nor disagree" in response to the statement "The instructor's teaching helped me learn." Seven of the ten students reported "strongly agree" and three selected "agree" for this question, providing a mean score of 3.7 (with "strongly agree" coded as 4 and "strongly disagree" as 0).

The honors program's instrument links directly to its mission and asks students "To what degree do you feel this honors course offered unique educational opportunities and experiences compared to a non-honors course?"

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Responses were recorded on a 5-point semantic differential scale with 1 equal to "not at all" and 5 equal to "very much." Seven students chose the highest option to record their response while three students chose option 4, resulting in a mean score of 4.7. Students' comments following this question provided useful insight into what students found appealing about the experience. Comments included:

- I like the opportunity to be actively involved in real program evaluation.
- I think the program evaluation opportunity itself is unique, and I really enjoyed that I was able to both learn and practice different research methods.
- Having the ability to evaluate the honors program was a very unique opportunity, and one that I don't feel other programs or institutions would offer.
- How lucky I am to be able to lead a focus group session with honors faculty! An experience most will not get.

The emphasis on active and applied learning experiences in the course was also reflected in the students' final class day discussion. I began the discussion by noting the tension between learning about program review and doing it. I then asked students what they found to be the most valuable component of the course. The comments below are paraphrases, rather than verbatim transcriptions, from their discussion:

- I adore honors. This was my opportunity to help out. Diving in helped more than the textbook.
- The bigger component was the act of doing; it was very beneficial to me.
- Walking through an entire project—actually executing the project was valuable.
- The course was very valuable for me; it was practical for me.
- I'm interested to see where this goes—there was beneficial hands-on learning. I could see my skills improving.
- This was an interesting class to take—the background and doing and analyzing.

Some students also directly noted the benefits of learning more about social science research methodology:

- I gained insight into the methods and paradigms in social science. It was cool to learn new things.
- I learned more about honors. This changed my ideas about research.

DISCUSSION

Two points are clear: within a single semester, honors students can have valuable learning experiences while engaging in meaningful data collection and analysis; and such data can prove useful to honors programs as they seek to assess their programs and make improvements. Involving students directly in some kinds of assessment-related data collection can also have methodological advantages. Honors students whose experiences are being assessed might be more willing fully to share their views (the negative as well as the positive) with fellow honors students than with honors faculty or staff. Similarly, honors students might be especially aware of the ways that experiences outside of the classroom, for example in the residence halls, impact the honors learning experience and, therefore, might be able to craft even quantitative survey questions to address such issues.

Meanwhile, some cautionary notes are appropriate as well. First, class size and the composition of the class matter. It would be difficult to execute a multi-modal data collection plan with fewer than ten students and logistically challenging with more than eighteen. Teamwork and feedback to the teams were essential. Too few students would make multiple successful teams impossible, and too many students would hinder the instructor from providing timely and useful feedback. It also would be beneficial if all students in the course had completed some kind of statistics or research methodology course prior to enrolling although the diversity of student backgrounds and fields of study was advantageous when assigning students to take the lead on specific tasks, e.g., statistical analysis as opposed to report writing.

Second, this kind of course requires a substantial time commitment from the instructor to accomplish essential tasks: ensuring the necessary on-time feedback to students; trouble-shooting and assisting students with navigating the university bureaucracy, e.g., securing the sample; processing the gift cards used as incentives/thanks to the interview participants; and organizing the class so that both content instruction and application can occur within the confines of a single semester. Students recognized the importance of these tasks, with all strongly agreeing that "the instructor was accessible to students" (mean score = 4.0 of a possible 4.0) and nine of ten strongly agreeing that "the instructor seemed well prepared" (mean score = 3.9).

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Third, given the press of completing data collection, analysis, and report writing, I had to abandon my initial plan to administer a content exam based on the readings and first weeks' class discussion. Consequently, I cannot be certain that all students mastered some basic methodological content and skills; such skills might include calculating the margin of error from a probability sample of a specific size or articulating the conditions when "matching" the characteristics of an interviewer and research participant is or is not desirable when collecting qualitative data. Another issue is the tension between "covering" content and applying it although requiring a statistics prerequisite, for instance, might alleviate this tension. Although a full content exam completed by students during a class period or at home would be ideal, instructors with time limitations might consider administering a short pretest on the first day of class followed by a short post-test later in the semester to gauge content learning.

More generally, the data collection activities in which students were engaged provided more indirect than direct measures of student learning. Honors student survey respondents and the participants in qualitative interviews and focus groups self-reported on ways the honors program provided meaningful learning experiences. They reflected on the extent to which the honors program was meeting its goals and on the ways the program could be improved. Other data collection efforts are necessary and underway to evaluate the quality of, for example, senior projects. Nevertheless, the research reports students provided to their client could be independently evaluated by faculty for direct assessment purposes.

The constraints outlined above are not insurmountable, and other honors programs and their students might benefit from designing a similar honors course. We hope to offer the course again although we will work with a client other than the honors program. Using this model, other programs in which honors students participate, e.g., study abroad, can gain assistance with their evaluation and assessment efforts while enhancing the learning of honors students.

CONCLUSIONS

Honors programs are under pressure from numerous stakeholders to collect data on student learning. Honors faculty and staff are committed to improving the honors experience. Both of these goals can be accomplished by undergraduate honors students, who can successfully collect and analyze quantitative and qualitative data from their peers within the context of a semester-long course. This type of hands-on learning and the execution of a real, applied program evaluation project provided honors students at CMU with a range of experiences that they could not receive in non-honors courses. While not eliminating the criticism of assessment that exists in the literature and that is voiced on many campuses, an assessment project that enhances students' experiences and saves valuable faculty and staff time is worthwhile on its own terms. Many features of the course outlined here could be replicated on other campuses, benefiting both the honors program and, most importantly, its students.

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The author may be contacted at

Mary.Senter@cmich.edu.

Statistics: A Cautionary Tale

Len Zane

University of Las Vegas, Nevada

Abstract: Many of the numbers used to assess students are statistical in nature. The theoretical context underlying the production of a typical number or statistic used in student assessment is presented. The author urges readers to recognize objective data as subjective information and to carefully consider the numbers that often determine admission, retention, and scholarship distribution in honors.

Keywords: data-based decision making in education; student assessment; standard deviations; probability distribution; central limits theorem

PROLOGUE

For many years, I would go through the following series of steps as part of my responsibility as a professor of physics. Administer an exam to a class of approximately fifty students, grade the exam, calculate the average and standard deviation, plot the grades in a histogram, and label approximate letter grades for that exam on the histogram.

Periodically, I would mull over what the test statistics—the average and standard deviation—meant in the context of the test-taking scenario. The mulling was caused by an uneasiness about the implied connection between these statistics and the histogram of the test scores. I never managed to clearly identify the root cause of my uneasiness, but the sense of discomfort remained.

In the fall of 1985, I became the founding director of the honors program at the University of Nevada, Las Vegas (UNLV). The importance of numbers and their averages became more central in this new role: first, the high school GPAs and class standings and SAT and ACT scores of students

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applying for admission; then, once students were enrolled in honors, the GPA requirements for students to remain in good standing or to receive and retain academic scholarships. All these numbers were fraught with uncertainties that I could not put my finger on but that made me nervous nonetheless.

Since becoming an emeritus professor, I have had time to think more seriously about statistics and how they often get misapplied in analyzing sets of numbers, each of which has a range of possible values that are often ignored and instead replaced by a single, inviolate number. "Misapplied" is probably too strong an indictment; more accurately, there is a strong tendency to give too much credence to the various numbers earned by students and less thought to the range of values surrounding each of these numbers.

At this point, I should explain what this essay is and what it is not. It is not a typical research article. It contains no data collected from students at my university. It does not refer to other honors publications that have explored similar questions. Rather than any of those usual essays, it is an attempt to look at the underbelly of statistics in order to make readers less confident and more skeptical of many of the numbers used to evaluate students enrolled in honors programs and colleges.

The first section defines the elements of statistics that will be central to the later arguments. The primary reason for inserting these definitions at the beginning is to level the playing field, as much as possible, for readers with different backgrounds in statistics. Also, readers with a background in statistics may find some of the definitions idiosyncratic. Therefore, please do not skip this section.

As an example of the "cloudiness" of a number, the main part of this essay—sections II, III, and IV—looks at the results of a classroom exam and how the preciseness of the scores invites more analysis than is warranted. Other numbers that abound in higher education could easily have served as the example. Sections V and VI discuss the size of a representative sample and the meaning of an individual SAT score.

I. BASIC DEFINITIONS

The following terms that appear in the body of the article are defined as nontechnically as possible.

Average

Take a bunch of values, say 25 of them. Add them together and divide the sum by the number of values, in this case, 25. This is the average; it tells you something, but less than you may think, about the group of numbers. For example, if all 25 numbers are 10, the average is obviously 10. On the other hand, if 10 of the numbers are 0, 5 of the numbers are 10, and 10 of the 25 numbers are 20, the average of the 25 numbers is also 10. Clearly these two sets of numbers are different, but their averages are the same.

The two examples show how the average says nothing about the spread of the original bunch of numbers that were used to form the average. The variance, defined next, is a number that tells you something about that spread—at least how the numbers spread around the average.

Variance

Subtract the average from each of the 25 numbers, square each difference, add them, and divide by 25. This is the variance, which is a useful measure of the spread of the numbers that were averaged. In my first example above of an "average," the variance was zero since all 25 numbers were equal to the average, 10. The second example also had an average of 10, but the variance was 80. This relatively large value alerts you to a lot of "scatter" in the second set of numbers.

Standard Deviation (SD)

The standard deviation is just the square root of the variance. For the two examples with an average of 10, the SDs are 0 and 8.94, respectively.

Probability Distribution (PD)

A statistical event, for example tossing a die, has an underlying theoretical set of possible outcomes, each with a well-defined probability. For the die, each of the outcomes of a single toss has an equal probability. An analog that will be useful later is to replace the die with a spinner centered on a circular pie graph divided into six equal sectors. Since a circle has 360°, each of the sectors representing one side of the die encompasses 60°. A toss of the die is statistically equivalent to a single twirl of the spinner. The PD represented by the spinner and the associated pie-shaped graph can be generalized much more easily than the die.

The PD for a die has six possible outcomes, 1 through 6, each with an equal probability. The mean value for this unbiased die is just the average of these six values, 3.5. Reserving the word "mean" for the PD average will distinguish PD averages from statistical averages. The variance for the PD in the die example is 2.92.

In the case of the die, we can comfortably assume that each outcome (each side) has an equal probability, but imagine that some nefarious character has replaced our unbiased die with a biased (loaded) die that will land disproportionately on one of the six possible values. This bias could only be determined by tossing the die many times and keeping track of the outcomes. The point here is that even with something as simple as a die, we cannot know, *a priori*, the probabilities that ought to be associated with each face of the die.

For a better example, suppose six horses are entered in a race. The probability that a particular horse will win the race is represented by an appropriately sized sector in a pie graph. The angular spread of the six sectors has to add up to 360° since one of the six horses has to win the race. Twirl the spinner, and the winning horse is selected by the sector the spinner lands on, saving a lot of wear and tear on the horses!

Now it is time to introduce the big CAVEAT. In most cases of interest, the underlying PD, which is to say the sizes of the different sectors (e.g., the probability that one horse will win), is unknown and is in principle unknowable; it is, in fact, what we are trying to unmask by collecting data.

Statistical Distribution

Data are collected by sampling the PD. In the example of the horse race—remember that the actual sizes of the sectors in the pie-shaped graph are unknown—imagine twirling the spinner 100 times; this is equivalent to having the horses rerun the same race under exactly the same conditions 100 times—an impossibility!

The data collected by sampling the PD are used to construct the statistical distribution. Horse A won 5 times, horse B 13 times, etc. The outcome of the sampling is that horse A has an approximately 5% chance of winning while horse B has a 13% chance, etc. (Of course, the percentages have to add to 100%.) Even these percentages are approximate: if we had the same horses run the 100 races again, the outcome would likely change. Maybe horse A would have a 7% chance of winning the second time around.

The game of statistics uses the data collected by sampling the PD, twirling the spinner, to learn as much as possible about the unknown underlying probability distribution. Intuitively, it makes sense to think that the more times the spinner is twirled, the better chance we have of getting a truer estimate for the PD, but regardless of the number of samples taken, the result will always be an *estimate* of the PD.

Normal Distribution (ND)

When people picture a "bell-shaped" distribution, they are picturing a normal distribution. If data conform to a normal distribution, the following quantitative facts are true: the peak of ND is at the average value of the data, and the spread of the data is determined by the SD; in selecting a single sample from a statistic described by the ND (twirling the spinner once.), 68% of the time the selected value will lie within one SD of the average, 95% of the time it will lie within two SDs, and 99.7% of the time it will lie within three SDs of the average.

For example, if the average is 10 and the SD is 2, then there is a 68% chance that the twirl of the spinner will land on a value between 8 and 12 and a 95% chance that the spinner will land on a value between 6 and 14. The chance of the spinner pointing to a value outside the range 4 to 16 is just 0.3%.

Central Limits Theorem (CLT)

This theorem suggests that almost any statistical set of data can be approximated by a normal distribution. Suppose 25 samples are taken from 25 PDs, one from each PD. The 25 PDs could be the same, similar, or different. The sample consists of one twirl each of the 25 spinners representing the 25 PDs. Note that each of these 25 PDs will have a mean and a variance, values that are typically unknown.

The theorem says that the average of the 25 values determined by the spinners will have an approximate ND, centered on the average of these 25 PD means. The variance of that ND equals the average of the 25 PD variances divided by 25. Remember, usually these 25 means and variances are unknown, and it is impossible to find the averages of 25 unknown means and variances.

The phrase "divided by 25" in the previous paragraph is the quantitative statement of the fact that our approximate ND gets better as the sample size is increased. The width of the ND is determined by the SD, the square root of the variance, which is inversely proportional to the sample size. Therefore, the bell-shaped curve gets narrower and narrower as the size of the sample increases.

The CLT turns out to be true for a surprisingly wide range of different, very un-bell-like underlying and unknown PDs used in the above example; in a real sense, it is a statement about the power of averaging. The CLT speaks to the outcome of the average of the 25 twirls. Each of the 25 spinners is twirled

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only once. With only a single sample from each of the 25 PDs, nothing useful can be said about the mean or variance of the 25 possibly different PDs based on a single twirl of each. In point of fact, the variance is undefined for a data set consisting of a single value.

At the risk of being overly repetitive, I stress that the CLT predicts that the average of a single spin of each of the 25 different spinners ought to be statistically distributed as an approximate ND. But, and this is a big but, the center and variance of that predicted ND are given by the average and variance of the 25 means and variances of the unknown PDs.

The utility of the 25 values collected depends on the relationship or lack thereof of the 25 PDs to one another. For example, suppose the PDs represented the probability for the outcome of the six-horse race described earlier. In this case, the 25 twirls refer to the same PD, so the outcome of running the race 25 times could supply useful information about the approximate sizes of the six sectors in the PD describing the outcome of the horse race.

On the other hand, if each of the 25 PDs has a unique distribution of sectors, it is impossible to use these 25 values to estimate the mean and variance of the 25 individual PDs that determine the peak and width of the ND predicted by the CLT.

II. THE TEST SCENARIO

Since grades, both in high school and college, play such a central role in honors and student self-esteem, the following is a detailed look at the data collected when an exam is administered to a group of students. This analysis depends heavily on the definitions presented in the previous section. Keep in mind that the same careful deconstruction could be applied to numbers that often determine admission, retention, and scholarship distribution in honors.

Professor Q gives a test to a class of 25 students. The students are the usual heterogeneous group with an array of study habits, different levels of interest and aptitude for the material, a bewildering range of living situations, and so on. The test design and questions that Professor Q creates will affect different students in different ways. Consequently, on the day of the test, each student enters the room with a different probability distribution. The sectors on each of their 25 pie-shaped graphs (with one sector representing an A, one a B, etc.) have individualized probabilities for the range of possible outcomes on Professor Q's test. Keep in mind that neither Professor Q nor the students themselves (nor anyone else for that matter) know how the sectors are divided on each student's spinner.

Furthermore, there is no reason to believe that all these PDs are approximately bell-shaped with different means and variances. For example, imagine a highly motivated student who suffers from test anxiety: sometimes this student gets through a test with no problem and does well, but at other times the student becomes anxious and incapable of answering the simplest questions. The PD for this student would likely have two peaks: one centered on a high score and the other centered at a much lower score that reflects the impact of an anxiety attack.

In the scenario of Professor Q's exam, each student's score represents a single twirl of his or her spinner: twenty-five spins, 25 test scores.

III. THE ANALYSIS OF THE TEST

The resulting data are 25 test scores, substantial-looking numbers that can be used to calculate an average, variance, and standard deviation. Professor Q cannot resist this temptation. The 25 numbers ask to be averaged; the SD is just waiting to be calculated. Once the numbers are calculated, Professor Q feels an obligation to go further and use these numbers, which can be calculated to hundredths of a percentage, to analyze the result of the exam. Having found the average and SD, the slippery slope of statistical sloppiness lies a short step ahead. Professor Q has a vague memory of a theorem from statistics that essentially says that most data can be explained by the ubiquitous bell-shaped curve, namely the normal distribution.

Professor Q uses the average and standard deviation calculated from the 25 test scores to create an ND based on these values and then superimposes the ND on the histogram of actual test scores. The comparison of the real test results to the ND implies that the test results ought to look bell-ish, but almost invariably the histogram and the ND are embarrassingly dissimilar. This discrepancy ought not be surprising since the bell-shaped curve defined by the ND based on the average and SD of the 25 test scores implies nothing about the distribution of scores shown by the histogram.

Professor Q has endowed the 25 test scores with significantly more meaning than statistics warrants.

IV. THE FOLLY OF THE ANALYSIS

When considered carefully, none of Professor Q's analysis, though reasonable sounding, makes the slightest bit of sense. Obviously, given 25 test scores, the average, variance, and SD can be calculated. Professor Q ought to have stopped there. When Professor Q posted the histogram of the test results, the average and SD could have been included as fodder for the students to mull over.

If a student was lucky on the day of the test, his or her spinner would have landed on a score higher than what was typical for that student (higher than the mean for their particular PD). Conversely, maybe another student was coming down with the flu on the day of Professor Q's test, so this student's pie graph would look different that day. Lower scores would have a higher probability than they normally would have had for that student, so the spinner would have had more chance to land on a score that was lower than the mean for that student *sans* the flu. Clearly, this single test score says almost nothing about the range of scores available to that student or for any of the other students for that matter.

The prime folly committed by Professor Q, probably without even realizing it, is assuming that each student twirls a spinner with an identical, or at the very least, a similar range of possible outcomes. This scenario pictures 25 pieshaped graphs with approximately the same outcome profile for each of the 25 students. The result of the test according to this scenario was 25 samples of these similar probability distributions.

This fictitious view gives statistical meaning to the average, variance, and SD of the 25 scores. These values now represent estimates of the mean and variance of the single PD from which all of the 25 samples (test scores) were drawn. Keep in mind that under the erroneous assumption that there is a single underlying PD, the average and variance are estimates for the mean and variance of that PD, but there is no reason to add the further assumption that the underlying PD ought to be approximated by a normal distribution.

Professor Q compounds his folly by assuming that the average and SD of the 25 test scores define an ND that approximates each of the 25 individual PDs that defined the possible outcomes for the 25 students. This erroneous interpretation allows Professor Q to deduce that an individual test score ought to have a 68% chance of being within one SD of the average score. Besides the terrible mistake of conflating the 25 different PDs into some mysterious average PD, Professor Q is also completely misinterpreting the Central Limits Theorem.

Remember that the CLT says nothing about how a single test score ought to be distributed. Instead it says that if you knew the mean and variance of the 25 individual PDs, these numbers would define an ND that would be the approximate PD for the average value of the 25 tests. Imagine 1000 identical universes where Professor Q gives identical exams to a class consisting of the same 25 students. The result will be 1000 values for the average of 25 test scores. The shape of the histogram of these 1000 scores is the thing predicted by the Central Limits Theorem.

If we knew the mean and variance of the 25 individual PDs, which we don't and can't, we could draw the normal curve predicted by the CLT. That curve gives the probability for the different possible average scores for that class of 25 students. The CLT says that the average score on Professor Q's test has a 68% chance of being within one SD of the average of the 25 means and a 95% chance of being within two SDs of that average. Even in this imagined but impossible best-case scenario, the test data say little about the meanings of the 25 individual scores. Professor Q and the students can compare their scores to the average, but it is not possible to say whether these differences are statistically significant.

Assessing an individual student on the outcome of a single exam is at best iffy. Luckily, in a college class we rarely have to base decisions on a single score. A student takes many different classes, graded in different ways. We can take some comfort in imagining that each student is twirling a spinner with a similar set of outcomes for each of these graded activities. Over time, these various outcomes can be used more confidently to assess the quality of the student's education. We do not have the same luxury in assessing ACT or GRE scores when we use them as criteria for admission to an honors program because these scores are often one-time events.

V. CATS AND DOGS AND THE SAT

Clearly, though, there are times when test statistics are meaningful. In cases where the statistics make sense, the argument is that the group of students taking the test is a representative sample.

Here is a thought experiment to shine light on the notion of a "representative sample." Suppose you and a team of helpers weighed groups of ten dogs and ten cats, and the average weight of each group of ten was plotted on a graph. The results will most likely bear out the fact that the weight of pet cats has a much smaller range than that of pet dogs.¹ In fact, any single average weight of ten cats may not be a bad representation for the average weight of any random sample of ten cats. On the other hand, it is extremely unlikely that the average weight of ten random dogs could act as a predictor for the average weight of ten different random dogs.

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It seems intuitively obvious that if we increase the number of cats and dogs in each group, to a 100 for example, the average weight of a single group of 100 cats or dogs is more likely to be representative of any other random group of 100. At some point, there are enough cats and dogs in each group that our confidence in the average weight of the random cats or dogs as representing the average weight of any other equal-sized random group is high. The point is that the random nature of individual weight ranges for each cat or dog in the group being averaged can be smoothed out by including enough cats or dogs. Figuring out the actual number of cats or dogs it takes to be "enough" is not so obvious, even if it is obvious that such a number, the size of a representative sample, exists.²

The same is true for students taking a test. In a given year, between 5 and 10 million students take the SAT. It would be surprising if the results in 2017 looked decidedly different from the results in 2018. Five to 10 million students are a representative sample.

Back to Professor Q: Can Professor Q argue that his class of 25 students is a representative sample? Ignoring the fact that anyone can argue anything, 25 seems much too few to be representative, so when does the number of students taking a test become a representative group? That is a question for someone cleverer than me to answer.³ I am confident that 25 is too few and that a million is more than enough.

VI. AN EXAMPLE OF TWO SAT SCORES

The histogram representing the millions of scores on the EBRW (Evidenced-Based Reading and Writing) or mathematics part of the SAT will be well approximated by an ND centered at 500 with an SD of 100. The scores, in increments of 10 from a low of 200 to a maximum of 800, are scaled to fit that normal distribution. If asked to guess the score on the EBRW or mathematics part of the SAT for a random one of these millions of students, the statistically best guess is 500. In all my years in higher education, no one has ever asked me to make such a guess!

On the other hand, important decisions are often based on a comparison of an SAT score of 630 for student A versus 650 for student B. Two statements can be made about these SAT scores. First, 650 is 20 points higher than 630. Second, the fact that the average score and SD for the millions of SAT test takers are 500 and 100, respectively, has nothing to do with the relative value of the scores achieved by students A and B. As discussed in detail earlier, students A and B entered the room prepared to take the SAT with individualized probability distributions. The sectors on their pie-shaped graphs were determined by how much studying they did, the amount of rest they got the previous night, the quality of their high school education, the socioeconomic background of their respective families, and a multitude of other factors. These factors affected their individual PD in unknowable ways.

To help illustrate how knowing the unknowable can alter our view of the two scores, imagine that each student entered the test with a probability distribution of scores that was essentially normal, i.e., with a mean and SD that accurately predicts the histogram of scores achieved if the test were taken and retaken many times by each student. Remember, this is impossible to know.

Suppose student A who scored 630 had a PD that was essentially normal, centered on 700 with an SD of 50, so student A had a 68% chance of scoring between 650 and 750. Student A's actual score was disappointing.

On the other hand, imagine that student B, with a score of 650, had a PD that was essentially normal, centered on 600 with an SD of 25. B had a 95% chance of scoring above 550 and below 650. Student B's score clearly beat the odds.

Based on the information that is unknowable, student A would produce an average score of 700 compared to the average of 600 for student B. Of course, these averages are based on taking the exam many times under identical conditions. But if these PDs are known, they do not lie. Student A's true test score is closer to 700 than 630. Analogously, a more representative score for student B is 600. The actual test scores of 630 and 650 were obtained by a single twirl of the spinner, one with the largest sector centered around 700 and the other around 600.

Based on the actual scores earned by students A and B, 630 is still lower than 650, but the possible origin of these numbers should make the difference look less substantial.

VII. CONCLUSION

In academia, numbers are used extensively for assessment, and they typically play a crucial role in honors admissions, retention, and scholarshipaward policies; they might also play a role—though much less frequently than outside of honors—in grading policies. When considering the implicit as opposed to explicit value of a number, ask yourself about the origin of the

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number. Remember that many of these relevant numbers were produced by a single twirl of a spinner sitting atop a pie-shaped graph with sectors of various but unknown sizes. With that thought in mind, I hope that you will recognize objective data as subjective information and give such data the importance they deserve by becoming a data skeptic.

ENDNOTES

¹ The average weight of different cat breeds ranged from 5 to 20 lbs. For dogs, the range was 4 to 200 lbs.

 2 I estimated the number of cats or dogs needed in a group to have 95% confidence that the average weight of that group would be within + or - 5% of the "actual" average weight for cats or dogs. The number for cats was 140 and for dogs it was 1500.

³ "Power Analysis" is a method used in statistics to estimate appropriate sample size. I used that to estimate the number of cats and dogs listed above in endnote 2.

The author may be contacted at

Len.Zane@unlv.edu.

Contracts for Honors Credit: Balancing Access, Equity, and Opportunities for Authentic Learning

PATRICK BAHLS

University of North Carolina, Asheville

Abstract: Research indicates that a majority of honors students across the country are able to earn honors credit through the fulfillment of honors contracts. These learning contracts grant honors credit to students who perform additional work in non-honors-designated sections of other courses. Despite their popularity, little has been written on the design and delivery of honors contracts. An inaugural annual honors contract system is presented, involving student reflections on contract fulfillment and programmatic assessment of learning outcomes. Students (n = 38) demonstrate an understanding of interdisciplinarity, alternative ways of knowing and being, and intellectual humility while faculty (n = 28) indicate a high level of satisfaction with contracts' design and output. Strengths and weaknesses are discussed. The author concludes that despite legitimate concerns about the effects of contracts on honors curricula and community, these agreements provide flexible ways for offering rich learning opportunities to students. A historical overview of honors contracts is provided.

Keywords: honors contracts; learning contracts; interdisciplinarity; metacognition

MAKING THE CASE FOR HONORS CONTRACTS

Honors programs and colleges, defined as often by a sense of community as by a coherent curriculum, are a common feature of higher education throughout the United States. At many institutions, a sense of community is fostered in the honors students' coursework, which generally features classes open only to honors students and includes honors-designated seminars,

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colloquia, study abroad programming, and sections of required courses located in both the majors and the general education curriculum. This section-based model for an honors curriculum is the predominant one in most colleges and universities, including four-year institutions. In "Demography of Honors: The Census of U.S. Honors Programs and Colleges" (2017), Scott, Smith, and Cognard-Black note that 90.8% of the 458 honors programs and colleges surveyed have "separate courses in honors" (208, Table 7).

However, the same study shows that at a majority of institutions with honors programs (63.6% of 458), students are able to earn honors credit, additionally or exclusively, through fulfillment of honors contracts that stipulate additional work the student must perform in a non-honors-designated section of a course. The popularity of contracts has remained quite stable over the past decade: Sederberg's 2005 survey of honors colleges found that 68.6% of the 38 colleges responding reported offering contracts. The contract option is popular at schools, such as two-year colleges (TYCs), where an insufficient number of honors students can guarantee sustainable offerings of honors courses. Other institutions supplement honors-designated course sections with honors contracts to give students more flexible means of completing honors requirements in a timely fashion.

Clearly, honors contracts do not, per se, foster the same sense of community bolstered by honors-designated course sections. In "Using Hybrid Courses to Enhance Honors Offerings in the Disciplines" (2016), Youmans writes, "the concern among honors faculty and honors committee members has always been that an honors track consisting of half or more of the total honors credits as independent contract work would undermine the integrative and communal nature of the honors experience" (20). Moreover, many faculty and administrators fear that contracts may lead to a dilution of the academic or intellectual rigor one would expect to find in an honors-designated course section. Guzy (2016) laments that the "default setting" for honors contracts is "more assignments," arguing that "calling coursework 'honors' by simply offering more of the same—more papers, more tests, more books, more labs—is indeed a waste of time and tuition" for students coming to college with credit from AP courses or dual enrollment programs (8), and Badenhausen (2012) claims that

we are all better served by a recruiting process that emphasizes the distinctiveness of the *learning experience* in honors and that we should spend most of our time educating families about the way honors classes are different rather than better. Of course, this strategy only

works if honors faculty have thought intentionally about the unique features of honors pedagogy and if programs do not rely heavily on honors contracts or h-options. (17–18)

Other authors are more neutral or forgiving, often implying that they are a necessary evil when an honors program or college is unable to deliver its curriculum otherwise owing to resource shortfalls or other extenuating circumstances. In their study of honors programs and colleges at historically black colleges and universities (2011), Davis and Montgomery note that "[b]ecause of budgetary constraints and insufficient honors courses, many administrators indicated that they relied on honors contracts to fulfill program requirements" (81), suggesting that in the absence of such constraints, contracts would deemed less desirable. Sederberg (2007) suggests that increasing reliance on contracts signals a "degradation of the honors curricular offerings" (23) brought about by the demands of delivering an honor curriculum to an increasingly large body of students. Others tout contracts as an option, though not necessarily an ideal one, for honors credit in specific settings, including very small institutions (Birgen 2015), STEM disciplines (Cordero, Jorgensen, & Shipman 2012), adult education programs (Ghosh, Dougherty, & Porada 2006), online programs (Johnson 2013), and United States universities overseas (Yyelland 2012).

Yet others find true positive value in contracts, if they are properly implemented and overseen. For example, Pattillo (2015) describes how honors contracts support first-generation college students' research and help them prepare for both graduate school and professional careers; DiLauro, Meyers, and Guertin (2010) argue for greater flexibility in contract design, offering a specific example of a highly successful "extended" honors contract; and Austin (1991) hints at the metacognitive value of honors contracts: "The experience of constructing a rationale for one's education and of selecting courses and other experiences to meet those academic objectives is, in itself, an important educational experience" (14). Perhaps no account of honors contracts' success is more passionate than Stratemeier's (2002), in which the author, herself an instructor in a TYC honors program, recounts her experience signing on to an honors contract in a course she took at her own institution. From her experience, she concludes that

[o]ptimally, the honors contract experience will enable the student to become more knowledgeable about one or multiple aspects of the subjects; to think independently, critically, and creatively; to develop good time-management and organization skills; to learn how to work independently; and to realize that one is responsible for one's own education. (51)

Cunha (2003), Guzy (2003), Holkeboer (2003), and Campbell (2005) all describe other positive attributes and outcomes of honors contracts.

Overall, however, little has been written on honors contracts beyond brief and oblique mention, in part because effective assessment of contracts is inherently difficult (see, for example, Lanier 2008, pp. 99–100). A thorough review of all NCHC publications yielded fewer than a hundred articles and monographs including the word "contract" even once, and only in about half of these pieces does the word refer to honors contracts specifically. Only three articles (Stratemeier 2002, Bolch 2005, and DiLauro, Meyers, & Guertin 2010) are dedicated solely to honors contracts although Otero and Spurrier's *Assessing and Evaluating Honors Programs and Honors Colleges: A Practical Handbook* (2005) offers guidelines on designing and delivering contracts effectively and James's *A Handbook for Honors Programs at Two-Year Colleges* (2006) contains both a short section on contracts and an appendix offering several TYCs' contracts as samples. Notably, Miller's forthcoming monograph *Honors Contracts: Insights and Oversights* (soon to appear in the NCHC Monograph Series) will offer a substantial contribution to the literature.

My purpose in the present article is to offer an account of the design and implementation of an honors contract system recently introduced in my university's liberal arts honors program, which has now existed for over thirty years. Our experience with honors contracts may serve to inform other institutions' faculty and administrators, particularly those in honors programs and colleges that are considering but have yet to implement honors contracts of their own.

While I begin with a brief discussion of the system's underlying philosophy and structure, my main focus will be on the outcomes of the system's first year, which included a single-semester pilot with only a few students and a further semester with broader participation. I will focus most closely on the students' end-of-semester metacognitive reflections, in which they were asked to unpack their experience in fulfilling an honors contract in a nonhonors course section. Though the data are still insufficient to draw definitive conclusions, the students' own accounts suggest that, by and large, they have made great progress in achieving a number of critical learning goals, including

- understanding and appreciating interdisciplinarity;
- understanding and appreciating multicultural perspectives, alternative epistemologies, and different ways of being in the world;

- forging connections with alumni, community leaders, and scholars elsewhere;
- becoming aware of the complexities of the research process (including its affective dimensions); and
- valuing and practicing intellectual humility.

While no one student made mention of all these outcomes, nearly every student noted at least one of them, and several offered profound insights on multiple ones. The students' thoughts make clear to me that despite some concerns about the watering down of the academic integrity of the honors program, contracts provided an extra measure of curricular flexibility while providing opportunities for students' self-guided intellectual growth.

INTRODUCING HONORS CONTRACTS: DESIGN AND DELIVERY

In the fall 2018 semester, the honors program of the University of North Carolina, Asheville, piloted its new formalized honors contract system, recently passed in a unanimous vote by the university's academic policies committee. That semester, eight students, following guidelines workshopped by a group of roughly a dozen faculty, crafted proposals to receive honors credit for work done in non-honors course sections. The honors director and faculty serving on the honors program's advisory committee assessed the contract proposals; the honors director and individual course instructors assessed fulfillment of the resulting contracts. The following semester, thirty more students, working with sixteen different instructors, took advantage of the same opportunity, with twenty-five of the thirty successfully completing the work they had contracted to do and only one student trying but failing to complete the required work. The four remaining students decided mid-semester to void their contracts and not pursue honors credit.

Several students had contracted for honors credit on an ad hoc basis over the previous couple of years, typically as a stopgap means of earning the handful of credits still needed to graduate with distinction in honors. However, there was no guarantee of consistency in their work, and communications between the student, their instructor, the honors director, and the registrar's office suffered from similar inconsistency. All in all, the scattered nature of these first contracts made them messy and unsustainable, requiring a greater quantity of work on everyone's part with little assurance of the quality of the BAHLS

students' work. Thus, there were significant advantages to the introduction of a formal system of honors contracts:

- *Ease of staffing and curricular sustainability.* Honors sections of both first-year writing and the university's core of humanities courses have always had lower enrollment caps than their non-honors counterparts: typically, 15–16 for the former versus 19–25 for the latter. Staffing the honors courses has thus been more difficult and has increased the workload of the coordinator of first-year writing, the director of the humanities program, and the director of the honors program. Introducing honors contracts has made the curriculum more sustainable, permitting the elimination of honors sections of first-year writing, which were generally under-enrolled.
- *Greater equity and accessibility in the honors program.* Historically, students in some majors requiring above-average numbers of credit hours (e.g., art, management and accountancy, and mechatronics engineering) have been underrepresented in our honors program owing to the greater amount of time these students must commit to fulfilling their major requirements. The opportunity to earn honors credit more flexibly makes the honors program a more realistic option for students in these majors, improving the disciplinary diversity of the program through greater retention of these students. Moreover, an increasing number of honors transfer students in any discipline, who often face similar demands on their time as they focus on completing major coursework, also benefit from the curricular flexibility the contract system provides.
- *Recruitment of new honors students.* The option to propose a contract for honors credit is open to all students, not just those in our honors program: non-honors students who successfully fulfill the requirements of a contract may receive honors credit retroactively should they later join the program. Thus, contracts serve as a means of recruiting new students into the program, broadening its impact on the student body as a whole.
- Deeper student engagement in disciplinary courses. The work students do in fulfilling honors contracts in disciplinary courses necessarily requires them to engage course content and concepts more deeply than they would otherwise and to reflect metacognitively on this work at the semester's end. Moreover, many of the activities expected of

students to earn honors credit, e.g., leading class discussion or designing interactive class activities, deepen their peers' engagement as well.

- Improved ability diversity in the classroom. While careful and controlled comparisons of higher-ability sections and mixed-ability sections of courses at the university level are hard to come by, the scholarship on teaching and learning in K–12 classrooms suggests that placing students in well-run, mixed-ability classes typically benefits lower-ability students without detriment to higher-ability students. Therefore, we should expect that the presence of honors students in non-honors classes should benefit non-honors students without negatively affecting the learning of their peers in honors. For a thorough discussion of the positive impact of honors students and the honors curriculum more broadly on all students' learning, see Clauss (2011).
- *Improved overall diversity in the classroom.* While the body of students involved in our university's honors program is increasingly diverse in race, ethnicity, family income level, and various other demographic measures, this group is still predominantly white, middle- and upperclass, and female. Greater classroom diversity across any dimension leads to greater perspectival diversity and thus to richer classroom conversations and more engaged coursework.

Meanwhile, in designing the contract system, we took care to mitigate potential negative impacts, including the following:

Dilution of academic or intellectual rigor. One of the instructors' primary concerns regarding honors contracts is a potential loss of academic depth concomitant with removal of a talented student from the pool of similarly talented peers. Concerned faculty, including many of my peers, fear that honors contracts will simply mean more assignments and not necessarily more meaningful ones (see Guzy's (2016) comment above about the "default" setting for honors contract work). To counteract this possibility, our proposal guidelines urge students toward student-centered, experiential work that "must not simply be 'more'; rather, it must be meaningfully integrated with the course content and learning goals and the work the course already requires" (see Appendix A for the full text of the guidelines). We offer examples of such work, including original research, community engagement, and student leadership opportunities in and outside of class.

- *Weakening of the honors community.* Another valid concern is the loss of a sense of community that could come from increasing the percentage of honors credits earned through contracts and not through participation in honors-designated course sections. To promote curricular flexibility through contracts without sacrificing community cohesion, our system, like others, limits the number of credits students may earn through contracts (see Appendices A and B as well as Otero & Spurrier 2005 and James 2006). Though data are as yet scant, we have seen no enrollment decline in honors-designated courses since implementing our formal honors contract system.
- *Increased faculty workload.* Although the effect of the contract system on faculty workload is not yet clear, managing the crafting and completion of honors contracts will, perforce, lead to extra work for some instructors. However, we took a number of steps to limit additional work:
 - The student proposing an honors contract, not the instructor for the course, is expected to do the bulk of the work crafting the contract. The instructor is expected to advise the student as needed, but the work of both crafting the contract and seeing that its expectations are met falls upon the student. The honors contract system is, by design, student-centered, with oversight by the honors director and the honors program's advisory committee serving to ensure the quality of students' proposed work.
 - Once a contract proposal is submitted by a student, the honors director and the advisory committee, not the instructor for the course, do the work of reviewing proposals and approving an honors designation for completed work. Moreover, each of the four members of the advisory committee reads only roughly a quarter of the proposals submitted in a given term. In practice so far, each faculty member besides the director has read roughly seven or eight proposals.
 - Permitting honors contracts in a given section is the prerogative of the instructor. No faculty member is compelled to permit students to propose honors contracts in any given section of any given course. Furthermore, an instructor may permit at most five honors contracts in any single course section.

- *Increased workload for the honors director.* Though the honors director must now manage the implementation of the contract program, the majority of this work occurs in the first two or three weeks of the semester, and the planned adoption of procedures for performing this work—e.g., developing digital platforms for submission, review, approval, and archiving of proposed contracts—will make the work more manageable still.
- *Increased workload for the registrar's office.* Though the associate registrar is ultimately responsible for granting a student honors credit for a given course, the honors director has made this step as simple as possible by simultaneously submitting all requests for granting honors credit so that the registrar's office does only a few minutes' worth of new work.

So far, so good. As noted above, over three dozen formal contract proposals have yielded nearly as many contracts fulfilled, and the faculty supervising these fulfillments report considerable satisfaction with their students' work. Moreover, oversight of the contract system has proven efficient and sustainable. As honors director, I see to most of the system's management, and individual instructors succeed in resting the bulk of the contracts' burden on their students' shoulders. Most instructors meet several times with each student throughout the semester, but these meetings are brief ones at which students do most of the talking. Instructors manage to find other efficiencies, too, such as recycling contract projects from one semester to the next and grouping multiple students on a single collaborative project in which each plays a distinct and critical role.

While these advantages alone make the case for continuing and even expanding the contract system, more striking still are the gains in student learning evident in the metacognitive reflections students submitted at the end of each term.

LOOKING BACK: STUDENTS' REFLECTIONS ON THEIR LEARNING THROUGH HONORS CONTRACTS

The work that students contract to do is diverse. Some projects result in concrete artifacts like papers, posters, newsletters, or wikis. Other contract projects are more ephemeral: students may lead class discussions or field

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trips, engage with community partners, or offer presentations or performances that leave little to no physical trace of their direct efforts. Regardless of the outcome of the projects, however, all students undertaking an honors contract are required to craft a brief metacognitive reflection on the work they performed in fulfilling their contract, a document in which they look back on the work and examine the ways it helped them learn and grow. As the one constant feature across all honors contracts, these reflections offer the best means of assessing the contracts' success at helping students meet a variety of learning outcomes.

The language guiding students in crafting their reflection is intentionally spare and brief (see Appendix A), allowing students considerable latitude as they write on the work they have done. Though individual instructors are asked to provide additional guidance according to the nature of their respective courses, students are not prompted with any language regarding specific learning goals. Nothing is said about interdisciplinarity, intercultural competency, intellectual humility, or any of the other topics the students raised, unbidden, in their reflections. The richness of their writing suggests that many students made the most of the opportunity to earn honors credit via contract. Here, I summarize some of the most striking themes in the students' reflections.

Understanding and Appreciating Interdisciplinarity

Given its centrality to many honors programs, it is heartening that several students' reflections made mention of interdisciplinary scholarship and its benefits. Students credited interdisciplinary investigation with both intellectual and personal growth as they learned to see the world through multiple lenses. Miranda's reflection, written on the in-depth study of Incan architecture she performed for her humanities course, was typical in its recognition of the inherent value of interdisciplinary perspectives: "This research project enabled me to . . . make clear interdisciplinary connections between architecture, masonry techniques, political structures, community, religion and landscape; furthermore, I was able to share this knowledge with my peers and enhance their course experience." She went further, connecting her project to her engineering major and career plans: "The aspect of this research project that I found most invigorating was the interdisciplinary connections between my analysis and my coursework in engineering."

Abril Carolina's case is another typical one. For her course on mammalian physiology, Abril Carolina studied the connections between the physiological

effects of opioids and these drugs' role in the current public health crisis; she wrote, "This project has allowed me to grow not only in my class, but also as a person, through making connections, listening to different perspectives, seeing how they come together, having a more open mind, and as [our university] says 'seeing the art in science and the science in art."

Understanding and Appreciating Multicultural Perspectives, Alternative Epistemologies, and Different Ways of Being in the World

Several students sought alternative viewpoints not only from different disciplines but from entirely different communities and cultures. Through cross-cultural comparisons of everything from divination to developing social programs dedicated to food security, students learned about others', and their own, ways of life. For instance, Miranda, credited her project with enabling her to "[learn] far more on the Incan empire than the regular assigned readings and discussions allowed for." Similarly, Mark's account of his research on divination methods from across the globe spoke of a deep understanding not just of ritual practices but of the philosophies underpinning them:

When I first began this research, I was initially looking for things that I previously always ascribed as being required for something to count as a practice of divination. For example, I found myself looking for a particular tool or ritual ceremony, in which the individual or individuals in the role of the seer or oracle would undergo some activity in order to receive a message from a divine being. While this surprised me at the time, I now see why I came up empty-handed for such a long period of time, and for such a consistent period of time. It never occurred to me to think from the perspective of the culture itself; how their own beliefs and views on communicating with the divine might be extremely different from the practices that are widely recognized and accepted today.

No doubt these realizations about perspectival diversity will inform Mark's academic thinking for a long time to come.

Meanwhile, Carson's project never took him past our city limits, but its effect on his intercultural understanding was equally profound. Like Miranda, Carson was already considering applications of his broadened worldview to his future career; about his outreach to local Latinx leaders, he wrote, "[I]t was evident that reaching out to different communities required a certain level of

cultural understanding.... The constant effort to be culturally mindful while going through the planning process of this festival was something I think a lot of businesses can learn from."

Self-discovery featured prominently in several of the students' reflections. About his study of the racial dimensions of mass incarceration in the United States, Matthew E. wrote:

This project was something I took on with the intent of educating others about my perspective on the issue of race and how it affected my sense of personal identity growing up. Instead, I learned quite a lot about myself—about the history and psychology of race, about culture, about the perspectives of others, and, perhaps most importantly, about how these things have influenced who I am today.

Forging Connections with Alumni, Community Leaders, and Scholars Elsewhere

While some students gained access to alternative perspectives through readings and other forms of library research, other students came by such perspectives more directly in personal interaction with other individuals and communities. Some of the most successful contract projects were collaborative, with students gaining practice in navigating relationships with other students, scholars, and stakeholders from a variety of communities, including future communities that the student could only imagine at present.

Abril Carolina's study of opioids put her in contact with a variety of healthcare experts, including a family practice physician, a family nurse practitioner, our university's substance abuse counselor, and two student volunteers at a local harm-reduction clinic. In her words, her conversations with these people helped her "gain a valuable 'behind the scenes' viewpoint of the epidemic." Carson's work with local Latinx communities taught him optimal communication strategies: "I have recently been following up with volunteers to confirm their participation in Dig Day for cooking demos. Not only do they not have emails, but they also will not respond to texts too long. As I have encountered this problem, every time the best solution is face-to-face contact with them."

One student's project led to a particularly surprising and satisfying collaboration. Meredith's honors contract for Humanities 214 had her investigating the cultural impact of various climatological phenomena, e.g., the "Medieval Climate Anomaly" and the "Little Ice Age," on Viking culture. Her research on this topic relied in part on cutting-edge climate data she obtained

from one of our school's alums: "I was able to talk to Stacy Porter, a [university] alumna, who is involved with research about the ice cores in Peru. She told me that the Peruvian ice cores show drier conditions but no anomalous temperatures during the [Medieval Climate Anomaly]."

Meredith was not the only one to connect with our university's scholars of a different era. Looking to the future instead of the past, Riley imagined an audience of future students who might engage with her work, which was a multimedia magazine on the topic of writing about writing: "We wanted to show the students how all of the material that we learned in the course was connected and that by using all of the concepts, they could make their writing more effective.... The magazine is a great resource for students who will be writing essays in the future."

Becoming Aware of the Complexities of the Research Process (Including Its Affective Dimensions)

Those students whose projects involved a substantial investigative component often learned as much about research as a process as they did about the topic ostensibly under study. Such newfound knowledge will assist these students in any future research efforts by enabling them to better navigate the process and avoid potential pitfalls or unfounded assumptions.

Albert was one of several students who found research more logistically challenging than he had anticipated:

Not only was research new to me, but so was the process!... Inexperienced, I was highly ambitious about the scope of my project without fully understanding the complexity of the process. To me, the literature review was equal parts searching with focused questions and following up on clues like a map. However, I underestimated the importance of efficiency in a long-term project like this.

Roxie, too, felt overwhelmed at times by the research process, but she found solace and strength in collaborating with a friend in her study of Chinese art: "Having someone else work alongside me motivated me to work harder to achieve my goal. Therefore, instead of dreading my presentations and the fact that I had to stand and talk to the class for an hour, I was excited to share this new information with my classmates."

One particularly challenging aspect of the research process is effective use of primary sources. Unsure of how to cite them, synthesize them, or even find them in the first place, students often shy away from primary sources in

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favor of pre-distilled information obtained from secondary sources. A few of the students completing honors contracts in the spring of 2019 made specific mention of their engagement with primary-source material. Meredith's discussion on this matter is a particularly thoughtful one, in which she acknowledges the difficulty of working with primary sources while simultaneously granting them interdisciplinary value:

The big lesson I learned from this project is how hard it is to piece together the stories of people from this era and before with no guidance other than the natural records and assumptions taken from related research....[T]he lack of primary sources during this period stands out to me. Humanities 214 encompasses the so-called "Dark Ages" in Europe, when much of our knowledge is pieced together through only a few writings mostly from the upper class.... Doing this research helped me understand the struggles with the reading of primary documents that historians go through when trying to read into the past, but it also helped me realize how important interdisciplinary studies are in this effort.

The novelty of research as a process evoked a variety of emotions, both negative and positive. Perhaps more used to the strongly scaffolded work typical of research projects in entry-level classes, some students expressed feelings of frustration, questioning their own self-image as scholars. Matthew M., for instance, noted, "I realized that the joy and feelings of discovery I normally have when digging through information can be replaced by exhaustion and disappointment when it is not easy to find information." Albert's underestimation of the complexity of his research was similarly frustrating: "[M]y findings from the literature review on medicinal plants in ancient Greece and Egypt initially boosted my confidence in its outcome, but additional searches became frustrating."

Not every emotional reaction was negative, however. Roxie drew satisfaction from her project's connection to personal interests:

One of our readings was titled "The Song of the Lute," which was written by Bai Yuji. I investigated this poet's life in order to understand the meaning behind the poem and how he could personally connect to it. I enjoyed this presentation more because I was more invested in it due to my love and understanding of the arts.

For Holt, too, contract work had a positive emotional effect. To her, the honors contract was a way to find greater meaning in course material that she found "dry" otherwise. Writing about her study of early-modern feminist figures, she noted that "this research was fulfilling because it deepened my understanding of the topic in question and I found myself more engaged with and interested in the material we were discussing."

Regardless of the emotion expressed, students' explicit recognition of the affective dimension of scholarship is a salutary one, better preparing each to engage in future research efforts with full anticipation of the complexities involved.

Valuing and Practicing Intellectual Humility

There are many ways of expressing the value of intellectual humility, reaching as far back as the apocryphal and often-paraphrased Socratic line, "I know that I know nothing." In their influential work on critical thinking, Paul and Elder (2010) define intellectual humility as "having a consciousness of the limits of one's knowledge, including a sensitivity to circumstances in which one's native egocentrism is likely to function self-deceptively; sensitivity to bias, prejudice and limitations of one's viewpoint." Such a trait is indispensable in a critical thinker, one who must attend as closely to what they do not know as to what they do, lest overweening intellectual conceit lead to biased or erroneous conclusions.

Unprompted, several students reflected on intellectual humility, most often obliquely, in offhand admissions of their own ignorance or acknowledgments of their growth as scholars. For instance, Holt, in her work on early-modern feminism, encountered viewpoints that were alien to her and reported on the subsequent shift in her thinking: the discovery of a research article offering an unfamiliar point of view "completely changed my understanding of the historical figure and showed me how significant anachronisms can be." Similarly, Riley's work in writing about writing spurred her growth as a writer: "[C]ompleting this magazine, helped me to reflect on all of the different components of writing and helped me to see how I have grown as a writer. . . . It helped me realize that I now have more 'tools' in my 'tool box' when it comes to writing, so I can make my writing more effective."

Albert's reflection makes explicit mention of intellectual humility:

Part of the research process requires humility, particularly when acknowledging issues in the project. Despite being unsuccessful in finding relevant information for the project, I felt too invested in it to change course. Trying to force a relationship between the texts I analyzed became exhausting, tedious, and passionless. After becoming aware of these aspects, I realized that my approach needed to be more adaptive. After spring break, I admitted my shortcomings with the project to [the course's instructor] despite my numerous attempts to make it work. We discussed changing the scope and presentation format to not only be feasible but also enjoyable.

In their reflections on their projects, these students demonstrated something more than knowledge or intelligence; they demonstrated a trait that is harder still to attain and just as hard to cultivate, namely wisdom.

LOOKING FORWARD: THE FUTURE OF HONORS CONTRACTS AT UNC ASHEVILLE

Despite potential pitfalls, honors contracts are functioning well at our institution so far. A survey of faculty overseeing contracts suggests overall contentment with the system, with all respondents (n = 8) responding either "Satisfied" or "Very Satisfied" in response to the question "How satisfied were you with the contract system overall?" Of course, the smallness of this sample and the newness of the contract system make it too early to tell how it will fare in the future.

Nonetheless, the outlook is positive. Our first-year writing program has embraced the system wholeheartedly: in the current semester, seven instructors, responsible for 14 out of 22 (63.6%) sections of first-year writing, are offering a contract option in their classes. Though some faculty in our humanities program still have reservations, the program's director supports the system and looks forward to future conversations on its implementation. Furthermore, an increasing number of students and faculty are approaching me about the possibility of permitting contracts in a broader array of courses in the majors.

A future need is long-term assessment of the contract system. This process will involve, at least in part, a comparison of contractees' reflections with similar reflections crafted by students in honors-designated sections of comparable courses. We will also continue to examine instructors' perceptions of the system, ensuring a balance between the system's sustainability and its robustness. Various quantitative metrics will complete the picture: contract fulfillment rates, grade distributions, and various programs' contributions to the contract system will help us better understand contracts' efficacy, efficiency, and equity in application. Ultimately, honors contracts rest in a highly unstable equilibrium. Managed well, they offer significant learning opportunities to our students without undue burden placed on any one instructor or administrator, but how the system will fare as it grows, as more and more students aim to take advantage of these opportunities, is still uncertain. As one of my colleagues reported when asked about the experience this past spring, "I had a great experience with this student, but I am concerned about the workload for the faculty. I am afraid that we are asking our faculty to do too much." We need to ask who will oversee contracts, how they will be recognized and rewarded, and whether we can continue to maintain the delicate balance we have struck between access, equity, and academic excellence. These are questions I am delighted to keep trying to answer.

NOTE

I have obtained written permission from all students to excerpt their reflections and to use their names in this piece. I include their words with immense gratitude for the work they have done.

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The author may be contacted at

pbahls@unca.edu.

APPENDIX A

Honors Contract Guidelines

What follows are the current guidelines provided to all students and faculty interested in participating in the contract system.

Guidelines for Crafting a Contract for Honors Credit in a Non-Honors Course Section

This document guides students and instructors in developing a contract for receipt of Honors credit in a UNC Asheville course that is not designated as an Honors course. Applicants for credit by contract must follow all of the instructions below carefully; incomplete or improperly crafted contracts will not be considered. All contracts will be reviewed by the course instructor, the Honors Program Director, and at least one faculty member of the Honors Program Advisory Committee, who will together decide upon approval.

Honors contract proposals must be submitted to the **course instructor** no later than the end of the first week of class and to the **Honors Program Director** no later than the end of the second week of class in order to be reviewed. Notice of approval will be given no later than the end of the third week of class.

- While the student is expected to consult with the instructor of the course in designing a contract, it is the responsibility of the student to craft the contract itself.
- The Honors Program Director and other reviewers will either (a) accept the proposal as is, (b) accept the proposal with amendments, or (c) reject the proposal outright.
- Credit for completing the course (with any letter grade) and Honors credit are independent of one another. That is, a student may earn full credit for completing course requirements without successfully fulfilling the Honors contract. However, the student must pass the course with a grade of B or better in order to earn Honors credit, even if all requirements of the contract are met.
- In order to ensure a reasonable workload for faculty, instructors may enter into **at most five (5)** Honors contracts per course section.

Questions about the instructions below or any other aspect of the Honors contract process can be directed to the Honors Program Director, Patrick Bahls <<u>pbahls@unca.edu</u>>.

To the student crafting this contract: please submit honors contracts completed as indicated below to your course instructor, who will then forward it to the Honors Program Director.

Student and Course Information. The student completing the Honors contract must provide the following information:

- Student's name
- Student's ID number
- Student's email
- Student's Honors membership: are you currently a member of the Honors Program?

(**Note:** non-Honors students may elect to contract for Honors credit, to be granted retroactively should the student later join the Honors Program.)

- Student's class standing (e.g., first-year, sophomore, *etc.*)
- Course prefix and number
- Course name
- Term in which the course is offered (e.g., "Fall 2018")
- Instructor's name
- Instructor's email and campus phone number

Proposed Work. The student completing the contract must write a brief (200–400 words) narrative description of the work to be completed in order that they earn Honors credit.

Note. The proposed work must supplement and complement the work already required for the course. The work must not simply be "more"; rather, it must be meaningfully integrated with the course content and learning goals and the work the course already requires. Ideally, the proposed work should involve active, student-guided, experiential learning.

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As noted, the narrative should make clear how the contracted work meaningfully builds upon required work. Please see the final section of this document for examples of potential work.

Timeline and Structure. The student completing the contract must give a brief timeline of the work, indicating how it will be structured throughout the semester. This timeline should also indicate how the work will be responded to and assessed by the instructor, providing at least two midterm "milestones" at which the student and instructor will meet to discuss the student's progress toward completing contracted work.

End-of-Term Reflection. In order to receive Honors credit via contract, the student must complete an end-of-term reflection on the work they have performed for Honors credit. This reflection must provide more than a summary of the student's work; in particular, it must include a "metacognitive" component, in which the student explains how the contracted work helped them to gain a better understanding of the content the course treats. *The end-of-term reflection is due to the course instructor and the Honors Program Director no later than the last day of class.*

Granting of Honors credit. The student will be notified whether Honors credit is to be granted no later than the date on which final grades are due in a given semester. Please note that students may successfully complete no more than two Honors contracts. In particular, no more than 8 hours of contracted Honors credit can be applied toward the 21 hours required to graduate with Distinction as a University Scholar, and no more than 4 hours of contracted Honors credit can be applied toward the 12 hours required to graduate with Recognition as an Honors Scholar.

Examples of potential Honors contract projects. The examples of Honors contract projects given below are meant to be illustrative, not exhaustive. Honors credit may be granted for any sort of work deemed appropriate by the course's instructor and other reviewers of the contract, including any combination of the work suggested below.

• Scholarship or creative work (as appropriate). A student might be asked to perform research about some aspect of the course, above and beyond the expectations of other students. In some courses, it might be appropriate to ask students to complete some sort of creative project not expected of others. As noted above, these projects should not simply be "more"; they should reinforce the learning goals of the course and enrich the experience of the student doing this work.

- *Community engagement (as appropriate).* If the course is one with a natural connection to the community, it might be appropriate to ask the student to engage with the community in some way that helps the student to achieve the course's learning goals. Community-directed service and scholarship offer experiential opportunities that are frequently worthy of bestowing honors credit.
- Other experiential learning. Other experiential opportunities may present themselves, depending on the instructor's and student's plans for the semester: internships and other work experiences, travel (even if not organized as formal study abroad or study away); presentation at conferences, symposia, *etc.*, and similar practices can meaningfully enrich the student's learning.
- *Student leadership in and outside of class.* In order to earn honors credit, a student might be called upon to plan and lead (to a greater extent than expected of other students) in-class, extracurricular, or co-curricular activities related to the course and its content.

APPENDIX B

Honors Contract FAQs

What follows is the current text of the frequently asked questions sheet provided to all students and faculty interested in participating in the contract system.

Honors Contract FAQs

Some of the most common questions about the Honors contract process are given below, along with brief answers. If you have a question not included below, or if you require a fuller answer to any question that is included, please contact the Honors Program Director, Patrick Bahls, at <<u>pbahls@unca.edu></u>.

• Do I have to be in the Honors Program to sign onto an Honors contract?

No. If you are not currently in the Honors Program, you may sign onto an Honors contract. In this case, if you successfully complete an approved contract's requirements, you will receive Honors credit retroactively if you later join the Honors Program. (Please see the Honors website, <<u>https://honors.unca.edu</u>>, for more information about the criteria for Honors Program membership.)

• Can I sign onto an Honors contract in any course?

You must get the permission of the course's instructor in order to sign onto a contract. Instructors are **NOT REQUIRED** to permit Honors contracts and the Honors Program permits them to enter into **at most five (5)** Honors contracts per course section.

• Who is responsible for designing an Honors contract?

The student is expected to consult with the course's instructor in designing the work to be included in a contract. However, it is the responsibility of the student to write the contract itself.

• What kind of work can be required in an Honors contract?

Honors contract work must supplement and complement the work already required for the course. The work must not simply be "more"; rather, it must be meaningfully integrated with the course content and learning goals and the work the course already requires. Ideally, this work should encourage active, student-guided, experiential learning. See the Honors contract guidelines provided on the Honors website for examples of potential Honors contract projects.

• The contract instructions ask me to identify "milestones" for my project, where I meet with my instructor. What do those meetings entail?

These "milestones" are meant as opportunities to meet with your instructor and ensure that you are making progress on your contracted work. You and your instructor should set clear expectations for those meetings ahead of time, and it is *your* responsibility (and *not* your instructor's!) to be sure that you come to those meetings prepared and having completed all work expected of you by that time.

• Who decides whether a proposed contract is approved?

Once a contract is written, it will be reviewed by the course's instructor, the Honors Program Director, and at least one faculty member of the Honors Program Advisory Committee. These reviewers will decide on the approval of the contract by consensus. Completed contracts must be submitted no later than the end of the second week of classes in a given semester.

• Who decides whether I've successfully completed the requirements of an Honors contract?

The course's instructor and the Honors Program Director will determine whether the student has successfully completed the contract's requirements.

• Can I pass the class I've got an Honors contract for without getting Honors credit?

Yes. The student may complete the course with any grade (including an A) without receiving Honors credit, if the requirements of the contract are not met.

• Can I get Honors credit without passing the class?

No. The student must complete the course with a grade of B or better in order to receive Honors credit, whether or not they have completed all requirements of the Honors contract.

• I have a friend who wants to do an Honors contract in the same class as me. Can we design one contract for both of us?

Not exactly. Multiple students may contract to do collaborative work for Honors credit, but every student must sign onto their own individual contract. The course's instructor, if willing to consider Honors contracts, will then help the students to design a collaborative experience.

• Is there a limit to the amount of Honors credit I can get by contract?

Yes. Students may successfully complete no more than two Honors contracts. At most 8 Honors credit hours may count toward the 21 hours required for graduation with Distinction as a University Scholar, and at most 4 Honors credit hours may count toward the 12 hours required for graduation with Recognition as an Honors Scholar.

Honors in Practice

BRIEF IDEAS ABOUT WHAT WORKS IN HONORS

Breaking the Rules: Bringing Calculus into the Humanities Classroom

Brent M. Blackwell

Ball State University

Abstract: Calculus in an honors humanities course offers students of different learning styles, interests, and aptitudes an opportunity to understand and appreciate the full range of the humanities, including natural science and mathematics. Students investigate the intellectual history and development of the calculus by reading work by and about Gottfried Wilhelm von Leibniz and Sir Isaac Newton. Without having to understand any of the mathematics, students explore the rich intellectual debates that characterize the late seventeenth century and in so doing help bridge the traditional STEM-non-STEM divide that exists today.

Keywords: STEM education; interdisciplinarity; history of mathematics; Baroque art

Humanities courses offer honors programs interactive spaces where honors students with every kind of advanced learning style and disciplinary preference can engage with our Western tradition. In my honors humanities courses, I have designed a unit that challenges these spectrums by having students investigate the intellectual history and development of the calculus by reading work by and about Gottfried Wilhelm von Leibniz and Sir Isaac Newton, its co-inventors.

By reading the writings of both men, students come to see how they developed their ideas of the calculus—the concepts of a rate of change over time—without having to understand any of the actual mathematics. They also get to dive headlong into the rich intellectual debates that characterize the late seventeenth century. Understanding in such debates requires no more than a basic grasp of high school algebra and geometry, which surprises students as much as it boosts their confidence.

Brief Ideas

The goal is to broaden student's understanding and appreciation of the full range of the humanities, which encompasses both natural science and mathematics. If our humanities classes only favor higher-order thinking and writing exercises that focus on synthesis and judgment to the detriment of definition, method, and categorization in the STEM disciplines, then not only will many STEM students be left out of the full extent of the honors learning loop, but non-STEM students will as well.

Reading Newton, students witness the mind of a true gifted thinker, following Janice Szabos's famous heuristic in "Bright Child, Gifted Learner" almost to the letter. Annmarie Guzy uses Szabos's dichotomy in her recent essay in a special issue of JNCHC devoted to gifted learning in honors and suggests that honors courses favoring one learning method over another often put a significant portion of our honors population at a disadvantage (11). She suggests using Szabos's distinction more like a spectrum than a dichotomy between opposing ends. The same case can be made with respect to the STEM and non-STEM divide as well, as Thomas F. Nelson Laird et al. argued (23). Gifted learners are the curious students with bright minds who also tend to do poorly in school out of intellectual boredom. These students, Szabos explains, tend to perform well on standardized tests but only excel in subjects that interest them (18). By reading some of the contemporary biographical works on Newton, students see a gifted honors thinker. Newton's writings on calculus are haphazard and out of conceptual order. Like a gifted learner, he learned what he needed to know in order to accomplish the tasks he set out for himself, but he failed most of his subjects in school.

In Leibniz, students see the other common honors learning style of the high-achiever in coursework and on tests. Reading not only Leibniz's own work but contemporary biographies of him as well, students see a master curve-breaker at work, digesting and processing the concepts of limits and rates of change the way any student of mathematics would, one step at a time. Following Szabos's list of high-achieving traits, Leibniz conquered every intellectual pursuit that was placed before him just as high-achieving students tend to do.

I pair these sets of readings with an analysis of one of their artistic contemporaries, Giovanni Battista Gaulli. Students examine his masterpiece, *The Triumph of the Name of Jesus,* which was showcased the year that Leibniz published his first paper on the calculus. Gaulli's ceiling fresco in the Church of the Gesù in Rome is a triumph of the artistic technique of *quadratura*—the uniting of perspective in painting and architecture through a sophisticated use of projective geometry, creating a three-dimensional visual effect on the two-dimensional vault of the church ceiling. That the basic curve studied by both Newton and Leibniz at the time was called the "quadrature," students come to realize, is no coincidence. They come to see calculus as an epistemology, a way of knowing and understanding that was employed by many of the mathematicians and artists of the late seventeenth century.

Bringing some conceptual mathematics and science back into the honors humanities curriculum shows students a multi-faceted approach to solving difficult problems in our ever-growing world of intolerance. Calculus defies oversimplifications and forces students to accept that even mathematics offers no absolute approaches to a given problem, only complementary ones. In reading the intellectual history of the calculus through its inventors, students come to see that STEM skills are as integral to artistic production as intuitive leaps of faith are to STEM discoveries like calculus.

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The author may be contacted at

bmblackwell@bsu.edu.

Engaging and Contributing Professionally in a Global Sustainability Honors Course

JEFFREY LAMP AND JOHN KORSTAD Oral Roberts University

Abstract: Science and Global Sustainability provides honors students with opportunities to engage with field professionals working toward sustainability and to participate in the production of various academic publications across disciplines. Interconnected concerns of social, environmental, and economic factors are considered when assessing the sustainability of any plan of action in the world. Opportunities for mentorship in multiple professional contexts are discussed.

Keywords: student engagement; field practice; faculty/student research; mentoring in education; interdisciplinarity

In the spring 2019 semester at Oral Roberts University, a Christian liberal arts university in Tulsa, Oklahoma, John Korstad, Professor of Biology, and Jeffrey Lamp, Professor of New Testament and Instructor of Environmental Science, co-taught a course in the honors program called "Science and Global Sustainability." The course is designed as an interdisciplinary exploration of scientific considerations in the study of global sustainability and is co-taught every other year by Korstad and Lamp.

In 2019, the course began with the instructors defining the term "sustainability" and placing it in the context of the Christian theological ethos of the university. The working model of sustainability adopted for the course consisted of the intersection of three overlapping spheres of human activity identified by the construct "people-planet-profit." This alliterative construct represents the interconnected concerns of the social, environmental, and economic factors that must be considered when assessing the sustainability of a course of action in the world. Balancing the concerns of each of these spheres of human activity optimally results in an overlapping area, conceived in terms of a Venn diagram, that represents the concept of sustainability. Where the interests of each of these spheres is represented is the most sustainable course of action.

Most of the semester consisted of presentations by twenty-nine guest speakers who work in fields that relate to the people-planet-profit construct. The speakers were chosen from a variety of sectors representing academia, industry, business, science, social issues, government, the community, and environmental concerns. While the content of the presentations from speakers was high quality, the highlight of many class sessions was the interaction between the students and speakers. The instructional intention of these sessions was to expose students to the complexities that various enterprises encounter when trying to balance their interests with the wider and often unique considerations of sustainability.

The most exciting prospect of the course was the major assignment for assessment. As the instructors, we presented the students with the opportunity to work on writing projects in which we were involved. Students enthusiastically agreed to this suggestion. Students ranked four topics in order of preference and were divided into groups. The groups deliberated the shape of their papers and worked closely in consultation with the instructors to produce the final manuscripts. The titles for the papers were: "A Christian Defense of Creation Care"; "Case Studies on Dead Zones—Watersheds around Large Rivers That Empty into Oceans or Seas and Create Growing Patches of Hypoxia"; "Case Studies on Cultural Eutrophication—Watersheds around Lakes That Contribute to Toxic Bluegreen Algal Blooms"; and "Phytoremediation and the Issue of Fracking in South Africa." The final papers will be included in two textbooks of which Korstad is a co-editor and an academic journal published by Oral Roberts University of which Lamp is the managing editor. At this time, all the papers have been reviewed and accepted for publication and are in the process of editing for inclusion in their targeted publications.

The two-pronged approach to this course—exposure to experts across several disciplines and collaborative work with instructors to produce professional publications—provides honors students with opportunities to explore potential vocational paths and to engage in substantial research with professors. Students are afforded opportunities for mentorship in multiple professional contexts. Via these opportunities, students develop traits that prepare them to become leaders in their chosen fields, a valued outcome in Brief Ideas

honors programs. We encourage other honors faculty to consider developing similar scholarly pursuits as they mentor their honors students.

The authors may be contacted at

jkorstad@oru.edu.

The Commonplace Book Project

KATE KRUEGER

University of Illinois at Urbana-Champaign

Abstract: A writing requirement for first-year honors students ($n \approx 250$) provides a flexible format that combines primary texts, analytical skills, and personal reflection.

Keywords: reflective writing; first-year experience; Evernote[®]; Instagram; rare books & manuscripts

First-year honors students have to process massive changes in their lives while also adopting the reflective and critical praxis of honors-based learning. A commonplace book is a valuable way for students to record and reflect on these changes. The flexibility of the form makes it ideal as a shared writing requirement for first-year honors students by providing them a space to develop analytical skills while learning about themselves.

The commonplace book taps into twenty-first-century ways of documenting experiences while hearkening to a historical methodology of critical learning and reflection. Millennials are seasoned curators of Instagram and Snapchat, but they are not necessarily practiced analysts. Because the commonplace book includes an assessment of the items that one collects, its purpose is didactic. Keepers of commonplace books educate themselves over time through their interactions with the primary texts they collect and the patterns of thoughts that emerge. During their first semester, students are meeting new people, encountering new ideas, and beginning the studies that will lead to their professional identity in the future. There is no better time to take a page from great thinkers of the past like John Locke, Carl Linnaeus, and Virginia Woolf while at the same time starting to collect and organize one's thoughts and sources of inspiration.

The commonplace book can be a lined notebook, a set of index cards, a digital notetaking system (like Evernote[®]), or even a visual medium like

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Instagram. Students can include, for instance, quotations that resonate, anecdotes, drawings and diagrams, song lyrics, and tweets, paired with corresponding reflections and analysis of why or how this selection is important to them. Over time, the juxtaposition of items might help students think through the big questions they've been pondering or help them make connections among all they have been encountering in their disparate classes.

Students have flexibility in how to organize their commonplace book. Blogger and University of Pittsburgh lecturer Moriah Purdy approaches her 2010 book—*An Academic's Commonplace Log Procedure(s): Procedures of Encounter, or, My Commonplace Log Practice*—as John Locke did: a systemic model that puts bibliographic information at the top of the page, quotations and passages in the middle of the page with analysis underneath, links on the right side, and keywords on the left side. She also color-codes her primary passages and her marginalia. Others take a looser approach. A quick Google search of "Commonplace Book Examples" illustrates the myriad ways people have made the form their own.

These are the basic requirements for our program at the University of Illinois:

- a 250-word preface introducing semester goals.
- a minimum of 3 entries per week. Each entry must include the date, each page must be numbered, and each source must be fully cited. Each entry must include a primary text (quotation, image, etc.) and an analysis of that primary text.
- 21 entries to turn in by Week 8 and 18 more entries by Week 15.
- an epilogue of 200–250 words in which students explain what these accumulated entries reveal about themselves and their first semester. What narrative has emerged? Have they accomplished the goals they originally set for themselves? Have they learned something entirely different?

All incoming honors students (approximately 250) complete this assignment in their first-year education course. Our instructors have collectively created a grading rubric that we use to assess the books. We also partner with our Rare Books and Manuscripts Library, which invites classes to view several commonplace books from its collection or a digital display of some of the pages. When students hold commonplace books several centuries old, they understand that they are taking part in a historical practice. The optional visit to the Rare Books and Manuscripts Library encourages our first-year students to connect with the campus and realize their place here.

Because the commonplace book does not demand lengthy entries but does require regular engagement and includes information from disparate sources, it models that deep and interconnected learning that honors values without simply piling on more work. It is not subject-specific; anyone can keep a commonplace book. Computer science students wrote code and then reflected on it; global studies majors wrote in second languages and then annotated those entries in English. Students wrote about homesickness and roommates and included quotations from textbooks and professors. Some discovered new passions or confirmed their central values. In their Epilogues, even the initial skeptics found something meaningful when they re-read this record of their first semester of learning.

The author may be contacted at klk40@illinois.edu.

A Dialogical Exercise for Honors Students

J. Robert Baker

Fairmont State University

Abstract: To expand students' abilities to think critically, honors instructors ask them to step aside from their objections to a passage in *The Handbook of Epictetus* to consider how that passage makes sense to Epictetus.

Keywords: critical thinking; dialogic theory (communication); first-year seminar; Epictetus

Many honors students can evaluate evidence and sort out weak points as they analyze arguments; they can also be vociferous in articulating their objections to positions with which they disagree. Most have difficulty, however, with a key aspect of critical thinking: understanding a position different from their own. They lack the ability to think dialogically, to see a position from the inside, from the perspective of one who holds it; they have had little practice in setting aside their own opinions, at least temporarily, to think with an opposing view in order to comprehend it. This ability is a crucial skill because, as Laird R. O. Edman told us nearly two decades ago, "Until you can summarize another viewpoint so well those who hold it agree with your summary, you do not understand that viewpoint" (NCHC Monograph *Teaching and Learning in Honors*).

To help students develop their ability to think dialogically, we ask them to read *The Handbook of Epictetus* in our first-year Honors Seminar. We allot two class meetings to discussions of this brief Stoic text. In the first, students readily identify passages they find troubling. Routinely, they bring up the third passage:

In the case of everything attractive or useful or that you are fond of, remember to say just what sort of thing it is, beginning with the least

little things. If you are fond of a jug, say, "I am fond of a jug!" For then when it is broken you will not be upset. If you kiss your child or your wife, say that you are kissing a human being; for when it dies you will not be upset. (*The Handbook of Epictetus*, trans. Nicholas P. White, 1983)

Students find this passage troubling and downright objectionable; they struggle with its seeming demand for emotionless relationships and its ostensible reduction of human beings to the status of a jug. In our first discussion, the instructor receives the students' objections and complaints without much comment; his or her main focus is having each student speak.

For the second class meeting, we ask students to re-read the *Handbook* and complete a brief exercise in thinking *with* Epictetus. The assignment reads:

Pick out a passage from the *Handbook* with which you disagree. Try to adopt the position of Epictetus and explain what he means by the passage. In other words, think analytically and dialogically about the passage, and try to understand it as Epictetus might have.

This is an exercise in dialogical thinking, so do not spend any time explaining why you disagree with the passage. Instead, look for another passage in the *Handbook* that helps you to understand the one with which you disagree and include it in your discussion. Focus on why the passage make sense to Epictetus.

We ask the students to do no research, not even the lightest of Googling, as they complete this assignment; we tell them that their own critical thinking will be sufficient as they enter into conversation with Epictetus. We begin by stating that we do not expect them to change their minds or even to agree with Epictetus, that they are free to make up their own minds, but we want to hear about their experience of dialogical thinking. As they share the results of the exercise, many of them begin with comments such as, "I hated the third passage, but I kind of see what Epictetus means now." Some cite the famous opening sentence of the *Handbook* with its distinction between the things that are up to us and those that are not to analyze why Epictetus offers the advice they had initially found distasteful, even abhorrent. A few report having changed their minds. We never fail to have lively discussions. Through the rest of term, students preface their comments with "I don't agree with x, but I can see dialogically where she is coming from." Even better, some students begin to say something similar in speaking to each other; while I don't agree Brief Ideas

with you, I can see how you arrived at your position. In end-of-term reflections, students remember this exercise and cite it as a catalyst for their growth as critical thinkers.

The author maybe contacted at

JRobert.Baker@fairmontstate.edu.

Office Hours: An Honors First-Year Experience Assignment

CATHLENA MARTIN

University of Montevallo

Abstract: An assignment tasks students with scheduling, preparing for, and reflecting on the experience of meeting with a professor during office hours. Student expectations and experiences are presented.

Keywords: faculty-student interaction; reflective writing; academic support; roleplay in education; University of Montevallo Honors Program

S ometimes the simplest assignments can be the most impactful in a student's collegiate success. Part of a professor's teaching requirement is to be available to our students, most evidently via office hours. My small, public, liberal arts university requires its faculty to hold ten office hours per week, but although faculty members put their hours on the syllabus, announce them in class, and encourage students to come, they spend most of these hours alone. Few students take advantage of this valuable resource that can improve grades, build relationships, and provide career guidance. Since our honors first-year experience class is an extended orientation course to transition our incoming students from high school to college, I have implemented an office hours assignment that was due in the first half of the semester.

The assignment is simple: make an appointment and attend one professor's office hours. Then write a brief summary of the experience describing their expectations before going to office hours and what they thought about the experience. Students are instructed to include the date, time, location of the meeting, and name of the professor within their written reflection.

To prepare first-year students for the assignment, several upper-class honors students come to class early in the semester to role-play various potential/

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hypothetical office hours scenarios. They present skits to help prepare students and reduce anxiety. I have found honors students reticent to ask for help but so grade-focused that they complete the requirement. Because the office hours assignment is uncomfortable for most of them, the skits and roleplaying are a way to mentally prepare themselves.

Students express a wide spectrum of emotions before attending a professor's office hours, ranging from uncertainty ("I wasn't sure what to expect") to apprehension ("I was really worried about bothering [the professor]") to dread ("I expected that he might be a little annoyed with me"). Many students hold professors in awe, as evidenced by one student: "Before going to office hours, I was a bit intimidated and thought it would be much more professional than it was." These expectations lead students to confess that they are "a little nervous going in," and because of their preconceptions of professors, most assume that the meeting will be "a rather formal event." One student wrote, "Before coming to her office hours, I expected it to be a very formal experience, however, I learned that it is not very formal, and the professor is truly there to help you."

Fortunately, their anxiousness quickly dissipates, and most students reflect on office hours as being both "a pretty pleasant experience" and a beneficial one. Faculty members spend time with these students, who have written that faculty "cleared up a lot of concerns" and "helped [them] to understand" course concepts. These meetings give students "a better understanding of [the faculty's] expectations." Additionally, faculty go above and beyond by using the time to give career advice: "I went in expecting a brief conversation about my major and my future, but I ended up opening up to him a lot more than I anticipated"; "What I did not expect was to get as much advice as I did. She gave me advice that I think will help me succeed"; "Talking with [the professor] helped me out a lot."

Showing that the professor is there to help and dispelling negative preconceptions helps precipitate future office visits. One student cites a grade benefit to the office hours visit: "Now that I have a good idea on what to do, I believe my current assignment (and possibly future ones) will become better." Others cite personal connections: "Overall, this office hour visit was extremely beneficial to me and I was glad to have gotten to know [the professor] a little better"; "My experience was a lot less stressful than I had made it out to be. I found out my professor was not as intimidating as I had previously believed. Overall, I had a very positive experience and feel more comfortable going to my math professor if I ever need help in the future." Since a key purpose of the assignment is to help students become comfortable attending office hours, it is satisfying to read multiple reflections that echo this student: "Overall, it was a positive experience, and I will definitely utilize office hours more in the future"; this is exactly the intended student learning outcome.

The author may be contacted at Cmartin16@montevallo.edu.

Intellectual Risk

ASHLEEN WILLIAMS

University of Mississippi

Abstract: Intellectual risk works, but it requires creating the space to fail in honors.

Keywords: risk-taking; vulnerability; failure; University of Mississippi Sally McDonnell Barksdale Honors College

I rarely speak in the honors freshman seminar I facilitate. It strikes my colleagues as strange and, at least in the first few weeks of the semester, leaves the students confused. I usually get a "Why can't you just tell us what you want us to say?" question, followed by a frustrated "I just want to know what you want me to think about this." I am left repeating what I've said the first few classes and written in the syllabus: "I want you to tell me what you think, what evidence you are drawing on, and how that comes into conversation with other viewpoints" coupled with "we all need to learn to listen."

At the Sally McDonnell Barksdale Honors College at the University of Mississippi, I approach the classroom with three general rules: respect human dignity, come prepared, and create space to fail. Creating the space for failure is an essential component of my approach to honors education and what I believe to be the core of the honors course. In teaching more than a dozen honors freshman seminars, I have learned that our students have been trained to be risk-averse and GPA-minded, a reality heightened by the labels "high-achieving" or "honors." Nationwide our students come to their first year from a variety of backgrounds, and this is especially true in Mississippi. Some leave private school education, where parents paid more per year in tuition than they will in university fees. Others come out of school environments where desks are broken, lunch periods are held in silence under teacher observation, and 1980s textbooks have to be shared between small groups.

Creating space for failure in honors works because it demands that we make ourselves intellectually and emotionally vulnerable. Intellectual risk brings great reward. In seminar, I ask questions as a framework for discussions based on big ideas like justice, equality, and the human condition. Essays receive feedback and big loopy "Why??"s and "Tell me more—use evidence." Absent is the traditional grade, resulting in office hours filled with outrage and frustration but also, and more importantly, improvement in writing and critical thinking.

Creating the space for failure is also my approach as a faculty member. I know what types of assignments, food, and books will bring about glowing teaching recommendations, yet each semester I throw out my syllabus from the previous year and start with the questions, "What do I want to learn this year? What is going to be hard but worthwhile? How can I meet a need in my community?" In this way, I have the opportunity to live honors in ways that might not work or go the way I planned. Last year my honors students and I worked with a local farmer's market to assess community needs, collect data, and offer solutions to improve access to fresh produce in a state characterized by food deserts, where more often than not, the only grocery store is the local gas station or Dollar General. The semester created many challenges but also some small successes.

I rarely speak in the honors freshman seminar I facilitate, yet experience tells me that this is how to create the space for students to take intellectual risk, to come prepared, and to learn to engage each other in ways that value human dignity and prompt them to think deeply about how and why.

The author may be contacted at

amwill17@olemiss.edu.

Using the Online Forum for Honors Learning

John Zubizarreta

Columbia College

Abstract: An online forum in which students share not only what content they have learned but more importantly how, when, and why they have learned provides a safe, open, generative space for learning beyond the limitations of the classroom. Suggestions for its effective use and integration are provided.

Keywords: electronic discussion groups; metacognition; social learning theory (communication); collaborative learning; educational technology

valuable pedagogical strategy I use in honors courses is an online threaded discussion forum in which students share not only the content they have learned but more importantly how, when, and why they have learned. The forum provides a safe, open, generative space in which students share ideas, research, relevant experiences, and questions that extend learning beyond the limitations of the classroom. Students also make connections across courses and disciplines and ponder how classroom work relates to their personal lives, making associations that result in deeper, more durable learning. Because all students in the class and the professor read the posts, thus encouraging each member to respond intelligently and respectfully, the forum creates a climate of genuine collaborative learning, with students and teacher contributing to the interdependent construction of knowledge through civil, scholarly exchange. Emphasizing critical reflection helps students to think and write metacognitively about the process of learning itself, and the forum becomes a way of acquiring the skills and habits of significant honors learning. Here are some ground rules for students that can be adapted to any course:

- 1. Each student should contribute a minimum of sixteen entries evenly throughout the semester. Four holistically graded, unannounced periodic checks of your online work are meant to help you remain consistently engaged. These assessments are averaged at the end of the semester for one of your course grades. A second course grade is an overall achievement assessment, an opportunity to make up for lost work and earn an excellent grade despite any inconsistencies in the periodic checks.
- 2. Each entry should be at least a paragraph's length, 15–25 lines. My interest is not in counting words or lines but in encouraging development of your ideas.
- 3. Try to make most entries critical pieces in which you reflect carefully about an idea, issue, text, class discussion, outside reading, or related learning in another class—something connected to our classwork. Some entries grounded in personal experience or opinions are okay, but the premium is on critically thoughtful pieces about the intellectual content of the course.
- 4. Use specific examples and quotations to enhance your discussions. When quoting texts, practice MLA or APA style to continue good habits of sound, accurate documentation.
- 5. Demonstrate your motivation by referring to helpful outside sources. Collaborate with others in finding, analyzing, and evaluating secondary sources that add valuable dimensions to our discussions. If you discover a cogent journal article or chapter in a book or web site, share it!
- 6. Your entries will be appreciated and evaluated mostly for content, creativity, depth of thought, and critical engagement. Grammar, spelling, punctuation, and mechanics are not evaluated although you should strive to communicate in clear prose that makes you proud.
- 7. The forum is a medium for challenging and creative reflection, expression of curiosity, and intellectual growth. Let's respect each other as honors scholars and encourage risk, critical inquiry, and diverse perspectives.
- 8. Finally, be sure to save your entries to your drive or the cloud, or make print copies as insurance against lost or damaged communications. System crashes, server failures, power outages, network delays

or glitches—these and other woes are not acceptable reasons for not meeting forum expectations. Pencil and paper are amazingly trustworthy technologies!

TIPS FOR THE INSTRUCTOR

- 1. Assuming a class of reasonable size, try to respond to every post, especially in the first couple of weeks. Later, you can combine entries and reply collectively to several at once. Stay active.
- 2. Model the kind of writing and critical reflection you desire from students. Offer your own and students' examples of shared research, good writing, proper documentation, civil discourse, and synthesis.
- 3. Bring forum posts into class discussions. Don't make the forum disconnected busywork.
- 4. Let students launch discussion topics. Avoid directing conversation with an opening post or question. I prefer not to end discussions at a particular time or end of week. Keep dialogue open to encourage learning as a recursive and generative process.
- 5. Offer plenty of positive feedback, but don't hesitate to point out room for improvement.
- 6. Continually remind students of expectations; they can fall behind quickly in an open forum.
- 7. The forum is a collaborative learning space that shows students' names and photos as we share ideas and resources. If a student is concerned about privacy rights, ask her or him to contact you and appropriate campus privacy officers to discuss options.

The author may be contacted at

jzubizarreta@columbiasc.edu.

National Security Council Role-Playing Simulation

Steve Elliott-Gower

Georgia College

Abstract: The first-year seminar Global Challenges fosters critical thinking by tasking honors students (n = 16) with role-playing in the Council on Foreign Relations' Model Diplomacy program. Curricular objectives and assignments are presented.

Keywords: situated learning theory; high-impact practices; critical thinking; Georgia College Honors Program

In spring 2019, I designed a course built around four role-playing simulations. The course was titled "Global Challenges" and was in the institutional option area of the University System of Georgia core curriculum. Georgia College First Year courses focus on critical thinking and have three institutionally defined student-learning outcomes:

- 1. Students will be able to explain multiple intellectual approaches that clarify or respond to problems, topics, themes, and/or issues.
- 2. Students will be able to effectively explain and analyze evidence in support of an argument.
- 3. Students will be able to form logical conclusions from the information presented.

This class consisted primarily of four Council on Foreign Relations (CFR) "Model Diplomacy" simulations: Global Climate Change, Boko Haram in Nigeria, Drones in Pakistan, and Dispute in the East China Sea.

The sixteen second-semester honors students in the class role-played U.S. National Security Council (NSC) members such as the president, secretary

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of defense, and national security advisor. Depending on the number of roles in each simulation, two or three students worked together on the same role, so two or three students might be on the "State Department team" although only one spoke as the Secretary of State.

The first day of each simulation was a set-up day spent assigning roles, explaining roles, explaining the scenario, describing policy options (without going into the pros and cons), discussing historical and geostrategic context, and going over the ground rules and game mechanics. The students then researched the issue at hand outside of class (using, for instance, articles and videos available on the Model Diplomacy website) and came back on the second day of the simulation to present and discuss policy options from their institutional perspective (e.g., as Secretary of State) and make policy recommendations to the president over two class periods, with more specific research being conducted between the two discussion sessions. The president and national security advisor then issued a national security presidential directive.

Each simulation, played over four or five class periods, ended with an inclass debriefing on the pros and cons of the various policy options, taking into consideration the broader geostrategic context as well as reflection on, for instance, the special challenges associated with the simulation, what worked, and what didn't work. Some adjustments were made to later simulations based on early reflections. For example, more time and detail were devoted to (1) setting up the simulation; (2) discussing concepts that the students would encounter in the simulation, such as sovereignty, terrorism, nationalism, alliances, and preventative measures; (3) assigning specific research tasks to specific students depending on their role, and (4) introducing flashpoints (unanticipated developments) that disrupted the decision-making process and caused participants to reevaluate their positions.

Each simulation required two written assignments:

1. A position memo in which students explained the national security issue before them, presented and analyzed the available evidence, and formed a policy recommendation for consideration by the White House team (consisting of 4–6 students depending on the simulation). Drafts of position memos became the basis of more in-depth discussion on the second day of the simulation. The drafts could then be revised and used to inform the presidential directive. The position memos were written from the institutional perspective of the role the student was playing, e.g., energy secretary.

2. A policy review memo in which students reflected on the case, the decision-making process, and the simulation. Students were specifically asked to consider (a) the strengths and weaknesses of the simulation as a learning exercise and (b) how future simulations might be improved to facilitate learning.

In a final leadership reflection essay, students reflected on the leadership lessons they had learned in these decision-making simulations.

The crisis scenarios, the applied research, the discussions, the role-playing, the teamwork, and the in-class and written reflections made for a successful, engaging, and high-impact honors class.

For more information about the Council on Foreign Relations Model Diplomacy program, see <<u>https://modeldiplomacy.cfr.org/#</u>>.

The author may be contacted at

steve.elliott-gower@gcsu.edu.

Undergraduate Research Seminars at Your Humanities Center

Anne Dotter

Johnson County Community College

Abstract: Communal, collegial spaces for undergraduates to share their research enrich student experience and academic development in the humanities, arts, and social sciences.

Keywords: undergraduate research; co-curricular programming; learning & scholarship; mentoring; University of Kansas Honors Program

On a given Friday, once a month around lunch time, our Humanities Center's seminar room is taken over by half a dozen or more undergraduates, three of whom are presenting their research that day. In the room, also, are a few members of the honors program team, one of whom serves as moderator and timekeeper, as well as a number of faculty who are mentoring these research projects. When everyone takes their seats and the room quiets, what ensues is something unusual: ninety minutes of rich and engaging conversation, all based on the audience's reflections on the three undergraduate research projects. More unusual yet: none of the students earn credit for attending.

The Undergraduate Research Seminar, a collaborative effort between the University of Kansas Honors Program and our campus Humanities Center, is modeled after professional seminars designed to bring faculty and graduate students together once a month to share their works in progress on a common theme. While our undergraduate research seminars do not have a common theme, the seminar's key word is always "collegiality." We invite students to share their research project at any point in the research process with the hope that students can receive constructive critical feedback in a safe environment while engaging in a rich exchange of ideas on a topic that really matters to them.

Student-presenters volunteer to share their works in progress. While some audience members and presenters may be encouraged to attend by instructors in required capstone courses, most participants are lured by free food and the opportunity to support a friend. Presenters are encouraged to prepare a five- to ten-minute presentation with visual aids, usually PowerPoint, in order to accommodate multiple learning styles. Our guidelines discourage use of jargon as well as minute development of overly specialized arguments. Presenters are instead encouraged to describe salient aspects of their research in terms that can be understood by students outside their field of study. They are asked to think about what the audience needs to know about their project in order to engage in a conversation about it, ask questions, or provide constructive feedback.

The most effective presentation in recent memory was given by a student in art history, whose research project was to identify the origin in time and space of an unmarked statue of the Virgin and child, found in the collection of the Spencer Museum of Art, our university's art museum. After providing some methodological background in the ways that art historians conduct research, this student guided us through a number of images, testing her hypotheses as she went. Not only did the presenter leave with new ideas to incorporate into her project and new directions for further investigation, but her audience left enlightened in the methods that art historians employ to conduct their research and impressed by the breadth of knowledge exhibited by their undergraduate peer.

Though most presenters are members of the honors program, it is not a requirement for participation. The event serves young researchers in and out of honors by giving them the opportunity to share their work in progress in a collegial environment, thereby empowering them to be well-equipped to do so in a larger venue where the stakes are higher. The Undergraduate Research Seminar is neither a course that students take for credit nor a course requirement; it is a unique opportunity for students to engage in the research process for free either as a witness or a presenter. The Undergraduate Research Seminar is also an important contribution to the University of Kansas community and a way for the honors program to be more visible to faculty in the Hall Center for the Humanities, a space where honors is seldom present.

Opportunities for undergraduates to engage in research in the humanities, the social science, and the arts are far too rare. Opportunities for the few Brief Ideas

who are engaged in research in these areas to share their findings, not to mention their works in progress, are even more uncommon. The University of Kansas Honors Program took the lead in creating a seminar to fill this gap, and once a month at the lunch hour, we are amazed by the results.

The author may be contacted at adotter@jccc.edu.

What Works in Honors: Discovering "London as a Detective Story"

Kelsey L. Bennett and Nicole Becwar

Western Colorado University

Abstract: An honors program director and university archivist/librarian team up to offer a two-week study abroad course that blends itinerant offerings of City as Text[™] with fixed support for first-time student encounters with archival collections at the British Library and the National Archives.

Keywords: City as Text[™]; experiential learning; study abroad; libraries and archives; Western Colorado University Honors Program

The idea for a course called "London as a Detective Story" originated as the honors director and a university librarian sought ways to collaborate in combining critical research skills with the honors program's values of risk taking, autonomy, interdisciplinarity, and experiential learning, all within a study abroad setting.

In order to prepare for the task of original research, students enrolled in a one-credit course the semester prior to the "Maymester" London-based course. During this prep course, the librarian introduced students to various kinds of archives, archival principles, practices, and materials. Readings focused on primary source literacy and on helping students to understand that archival records are not neutral, objective, or impartial and to learn how to think critically about the materials they found.

Students next selected a primary and a backup research topic. Topics ranged from Mary Shelley's relationship with her publishers to Winston Churchill's dealings with the British War Council during Operation Dynamo. Students researched collections at the British Library and the National Archives online to determine which location best suited their topic. From

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there, they chose which collections they wanted to study, created an account, and preordered materials. This arrangement provided students the unique opportunity to set up an autonomous research agenda and guided logistical support along the way. The advance work also saved time while the students were in London; they could easily obtain reader passes once there, and their reserved materials were ready when they arrived.

Once in London, we provided the class with essays by Iain Sinclair to accompany the City as Text^{TM} (CAT) dimensions of the course. In *The Last London* (One World Publications, 2018), Sinclair observes:

Unravelling riddles, treating street names and street furniture, marks on walls, aerosol revisions to hoardings, found fragments, objects or lists or letters, sodden playing cards, as pages torn from a lost book, identifies London as a detective story. A story with unlimited chapters and no resolution. The point being to find the inspiration for the next journey, a new beginning. Another shot at redemption. (18)

Sinclair, whose essays themselves create a series of highly idiosyncratic maps, or chapters, of the city, was a conversation-inspiring companion to our excursions throughout our time in London.

The itinerary devoted morning sessions to explorations organized by city neighborhood/district. We started with a short walking excursion in Bloomsbury, where we were staying throughout the course. We found it beneficial to begin within a narrow range as many of our students came from rural backgrounds and some of them had never before traveled abroad. From there, we broadened our explorations to other areas, challenging groups to find their way both by walking and using public transportation. For each excursion, we changed the composition of the groups to ensure that a fresh combination of perspectives engaged a given space. Students noted their impressions and gathered information by observation and by talking to people, paying attention to sensory detail and reflecting on their findings in daily journal entries. Some days, students channeled these general CAT methods into specific themes, such as culture, class, and identity; the use of "green spaces" within the city; and the way the past and present manifest themselves in public spaces. Throughout, students were invited to make connections between the places they were experiencing and their research in the archives.

Three challenges we noticed included how to minimize student phone use; relatedly, how to get students to talk to people; and how to get students to use (and not use) their guidebooks during excursions. We figured out how to meet some of these challenges in part by pocketing our own phones, risking conversations with passersby, and stepping aside as students chose the next turn to take, thus providing a model without being prescriptive.

Upon return, students submitted multidisciplinary projects synthesizing CAT observations with archives research activities and presented their findings during the university's Celebration of Scholarship event. One student connected proposals for rebuilding after the Great Fire of 1666 with Wren's commemorative monument that he encountered during a CAT excursion. Another student, researching WWII and mental health, examined cases in the recently released Nazi persecution claims from the 1964 Anglo-German Agreement; she created a visual timeline blending significant events and individuals from her research with places associated with CAT explorations.

Altogether, students learned to see for themselves through a process of discovery in the archives and through mapping the city. At the same time, they contributed their own chapters delineating temporary moments as their lives intersected with the great unfolding story of London.

The authors may be contacted at

kbennett@western.edu.

Mental Health Matters: College Student Mental Health in the Twenty-First Century

Gary H. Bischof, Alexander J. Hamilton, and Adrian J. Hernandez

Western Michigan University

Abstract: Authors present the content, delivery, and benefits of a one-semester honors college lecture series on college student mental health.

Keywords: mental health of college students; lectures and lecturing; well-being; psychological stress; National Alliance on Mental Illness (organization)

Student mental health is a growing concern on college campuses. Large national samples through the Healthy Minds Study (2019) reveal that 39% of college students struggle with anxiety, depression, eating disorders, self-injury, or suicidality (Eisenberg, Lipson, et al, *Promoting behavioral health*, 2018). These data also demonstrate increased incidences and severity of mental health challenges. For example, 11% of students in 2016–17 reported past-year suicidal ideation compared to 6–8% in earlier surveys (2005–2013). Further, 21% reported non-suicidal self-injury compared to a previous 14–17%. Campus counseling center usage rates are also increasing, often stretching center capacity and leading to wait lists (LeViness, Bershard, et al., <<u>https://www.aucccd.org/director-surveys-public></u>, 2018).

Although research comparing honors and non-honors students is limited, several studies indicate that honors students are at greater risk of experiencing mental health issues because they are highly aspirational and perfectionistic (e.g., Owens & Giazzoni, *JNCHC*, 5(1), 2010) notes an association between the anxiety of perfectionism and negative emotional, social, and academic

performance. Research also suggests that school administrators and mental health professionals often overlook honors students, assuming that academic excellence or higher intelligence equates to an increased ability to handle mental health challenges (e.g., Owens & Giazzoni). Alternatively, other studies indicate that honors students are well-positioned to demonstrate greater levels of psychological wellbeing compared to their peers, assuming that these students engage in initiatives and services that promote positive characteristics and wellbeing (e.g., M. Kelleher, *JNCHC*, *18*(2), 2017) notes the inter-disciplinary nature of honors colleges is well-suited to address mental health needs, and the role of mental health is emphasized in an article on honors students' thriving (Cuevas, Schreiner, et al., *JNCHC*, *18*(2), 2017).

In an effort to raise awareness about mental health issues among college students, we developed a semester-long lecture series. Those who arranged the series included honors college personnel, an honors student, faculty with expertise in mental health, the campus counseling center director, and a community representative from a local crisis call center. We held public one-hour lectures weekly and an evening event in the community with a movie by L. Klein (2017, *The S Word*) profiling stories about young adults who survived a suicide attempt. Here are the thirteen lecture topics and the presenters' backgrounds:

- 1. Mental Health as a Public Health Issue: Local Initiatives and Resources. Local leaders of mental health and substance abuse organizations, and a faculty member in public health policy.
- 2. Depression: Symptoms and Strategies. Psychology professor.
- 3. 13 Reasons Why Not. Faculty member and director of the campuswide suicide prevention program.
- 4. Healthy Minds Study: Current Issues and Trends on Campus Mental Health. Staff member of Healthy Minds.
- 5. What to Do When Someone You Know is Struggling. Case manager, Student Affairs.
- 6. The Pulse of Anxiety is Rising. Psychology professor.
- 7. The Somebodiness of African American Men (P. D. Johnson, 2016). Counseling professor.
- 8. How Can Good Enough Be Enough: Perfectionism in Perspective. Two graduate assistants.

- 9. Technology and Mental Health: Challenges and Resources. Faculty member and researcher, Center Behavioral Intervention Technologies, Northwestern University.
- 10. Medications 101 and Mental Health Treatment Options. Health center psychiatrist.
- 11. Healthy Relationships. Marriage and family therapist and family studies professor.
- 12. Grit, Resiliency, and Self-care. Campus counseling center director.
- 13. Stories of Recovery and Resilience: Panel of students who have dealt effectively with mental health challenges during college.

Many lectures had interactive components and offered practical strategies to maintain wellness, and counseling professionals were present if anyone needed support. We invited student organizations of the National Alliance on Mental Illness (NAMI) and Active Minds to have information tables at the lectures. Attendees completed a brief survey following the lectures; satisfaction and usefulness both averaged 4.5 on a 5-point scale. The three most useful lectures were on anxiety, grit, resiliency and self-care, and perfectionism. The series helped raise awareness of college students' mental health and available resources, and it emphasized that the honors college takes these matters seriously. For more information, visit <<u>https://wmich.edu/honors/</u> spring-2018-lyceum-lecture-series>.

The authors may be contacted at

gary.bischof@wmich.edu.

Emphasizing Co-Curricular Experiences to Address Increasing Honors Enrollment and Diminishing Resources

JASON T. HILTON

Slippery Rock University

Abstract: A program giving equal emphasis to honors coursework and targeted co-curricular experience provides one solution for a public university facing both increases in enrollment and decreases in financial resources. Undergraduate research, study abroad, and campus leadership provide high-impact experiences to students for honors credit. Measurable outcomes are presented.

Keywords: co-curricular activities; student engagement; high-impact practices; interdisciplinarity

Like many honors programs, ours faces an increasing number of highly engaged students seeking admission while simultaneously we face a push to maintain quality with diminishing resources. To address these concerns, we have modified our honors program to blend curricular and co-curricular opportunities into an outcome-driven honors experience.

In its earlier conception, honors students were required to take seven honors courses in order to complete our program. Honors-only courses are sections of university-required general education courses taught by various departments across campus. As honors sections, the courses have smaller class sizes, an increased emphasis on student-centered pedagogy, and a focus on interdisciplinary connections among various content areas.

As our honors program doubled in size to around 200 students in the middle 2000s and as the student-to-faculty ratio grew campus-wide, offering enough honors sections became a challenge. To address this concern, the

program initially developed an outcome-based approach, described by B. E. Wilson in *Honors in Practice* (2012), that allowed students to substitute certain co-curricular experiences, such as undergraduate research, study abroad, and leadership on campus, for up to three of the required honors courses. In this way, while students still satisfy their university general education requirements by taking non-honors sections of courses, they can work toward completion of their honors requirements by engaging in high-impact practices that result in an equally robust honors experience.

Moving forward into 2019, honors now has over 500 students with a projected enrollment in three years of over 700 students. At the same time, our state system of education was recently ranked by U.S. News & World Report (6 August 2019) as last among all of the states' systems of higher education, largely due to funding concerns and increased college costs. In order to maximize our fiscal efficiency and pass on as little of the cost as possible to students, our institution is very sensitive to FTE numbers in departments and the opportunity costs of running smaller honors sections of courses compared with larger, non-honors sections of courses. High enrollment in honors, coupled with maximum fiscal efficiency across the institution, has required a further shift away from a model of honors education that emphasizes a sevencourse curriculum toward a balanced approach that blends coursework with targeted co-curricular experiences in order to ensure that honors students continue to be exposed to a robust honors education.

To accomplish this task, honors began by defining our six measurable outcomes. Our list of co-curricular experiences was then expanded to link the outcomes of those experiences to our honors outcomes and to match current opportunities at our university. While students can still earn honors credit by engaging in undergraduate research, study abroad, and leadership on campus, now experiences with community-engaged learning, service learning, global learning, and creative works are also eligible honors experiences. Additionally, students now have the option, much like a contract course, to propose that a co-curricular experience count for honors credit after justifying the activity as an honors experience by linking it to an outcome, showing an appropriate depth of engagement, indicating interdisciplinary connections, and highlighting how the experience will have positive impacts.

Honors sections of courses were also given honors credit values to make them equivalent to co-curricular experiences as an equally valid pathway to completion of honors whereas previously the co-curricular experiences seemed lesser because they were substituting for coursework. To complete the honors program, students are now required to be involved in an equal balance of honors courses and co-curricular experiences, and both are equally valued as high-impact, interdisciplinary learning opportunities.

The resulting system has reduced the fiscal burden on departments that offer honors courses while still ensuring that we are able to maintain our most impactful honors course experiences. Additionally, our system now emphasizes our honors students' heavy involvement in co-curricular experiences and allows our students to approach that engagement through an honors framework that focuses on measurable outcomes. Most importantly, this balanced approach allows our institution to offer a robust honors experience to an increasingly large honors student body in a public university that faces extraordinary pressures to cut costs at every opportunity.

The author may be contacted at jason.hilton@sru.edu.

The Campus Improvement Project: A High-Impact Practice to Stimulate Honors Community and Empower Student Leadership on Campus

Steve Garrison and Cody Parish

Midwestern State University

Abstract: First-year students are challenged to complete a Campus Improvement Project to first identify a problem on campus and then propose a solution. Students develop basic research skills and a sense of belonging to their university and honors community while simultaneously maturing as leaders.

Keywords: first-year experience; observational learning; interdisciplinary research; communities; college campuses

A traditional challenge in honors education is integrating honors students within the honors community, the university campus, and its associated resources. To address this challenge, the Redwine Honors Program of Midwestern State University (MSU Texas) has developed a Campus Improvement Project (CIP) designed to incorporate key principles of honors education community, bounded freedom, and academic competence—and to assimilate new students into campus life while simultaneously developing their basic research skills. This active learning project facilitates deeper student learning through a number of high-impact educational practices, including a first-year seminar, collaborative assignments, undergraduate research, and elements of service learning. In this way, our project bears similarities to that put forward by James D. Bell in the 2005 and 2015 volumes of *Honors in Practice*, but it ultimately extends his project in terms of student demographics, pedagogy, and course objectives.

The project begins in our program's orientation and continues throughout our first-year seminar, a course that introduces students to research in an interdisciplinary framework. During orientation, incoming students are organized into groups by major and paired with at least one honors peer mentor. As groups, the students then participate in a City as Text[™] activity designed to familiarize them with the university and the surrounding community, to introduce them to their peers, and to encourage them to ask critical questions. The project continues the second week of class as first-year students are randomly placed in CIP groups and then explore the university campus through a subsequent Campus as Text activity. This second activity pushes the students to think critically about the university and its ability to support its academic mission. In our case, MSU Texas is a public liberal arts institution. Our students are thus asked to identify examples on campus of support for the liberal arts mission as well as areas where university support could be more effective. Students then present their findings to their peers in the classroom.

Over the next month, students are introduced to basic research skills covering each of the major areas represented on campus, from the natural sciences to the fine arts. The skills include formulation of research questions, hypotheses and research designs, survey construction, content analysis, and archival research. Following these presentations, student groups identify an issue on campus and apply their newly developed research skills to determine a solution. The groups must address three criteria: demonstrating the need for their solution supported by primary or secondary data; identifying the benefits of the solution to the university as well as to current and future students; and providing detailed implementation information, such as estimated costs, staffing demands, a campus location, or other resources required. Groups must then submit their suggested proposal in an abstract format.

Student work on these projects continues throughout the remainder of the semester, culminating in two presentations. The first is a poster presentation at the university's undergraduate research symposium, which provides an opportunity for honors students to gain both familiarity with presenting research and valuable feedback from the campus community. The second is a special panel presentation during the last week of class, in which upperlevel administrators from related sectors of campus are invited to evaluate the proposals in a "Shark Tank" format. Students present their research to the administrators, who assess the merits of each proposal, score the presentations, and, if warranted, adopt those that are feasible.

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Since its inception in 2014, the CIP has become an integral part of our honors program's mission, and, as indicated by Bell, its benefits to both our honors students and university have been numerous. First-year honors students build a sense of community through collaborative research about their university and its needs. This form of active learning facilitates knowledge acquisition about campus resources, and the experience of presenting their findings to the university community and administrators primes students to seek out future undergraduate research opportunities. Moreover, tangible campus reforms have emerged from the CIP, including the creation of a student-run food pantry, a transfer student orientation program, and a campus bus-tracking phone application. As a result, the experience serves as an effective high-impact practice that not only integrates incoming honors students' ownership of their education, empowering them as campus leaders with the ability to effect positive institutional change.

The authors may be contacted at

steve.garrison@msutexas.edu.

Beyond Bookkeeping: Developing Intellectual Skills in Honors Accounting Courses

L. Benjamin Boyar

LaGuardia Community College (CUNY)

Abstract: Critical thinking skills are sharpened in an introductory accounting course requiring students to think and write about contemporary issues connected to their discipline. Students are tasked to explicate opinions involving shareholders and stakeholders as expressed in a *New York Times* editorial by U.S. Senators Bernie Sanders and Chuck Schumer and to present an argumentative essay that demonstrates practical disciplinary competencies and understanding of procedural knowledge. The challenges and rewards of teaching writing in technical disciplines are discussed.

Keywords: accounting education; writing; stock buybacks; critical thinking; scaffolding

Research and writing are important aspects of an honors education. As an Accounting professor at a community college, I confront a conundrum. Many students, particularly those whose first language is not English, gravitate toward accounting because they are uncomfortable reading and writing, but it is precisely these students who benefit most from moving beyond the conventionally procedural nature of introductory accounting courses to the more conceptual aspects of the discipline.

To ease students into the habit of reading and writing about accounting topics, I created an assignment that requires them to respond to an editorial in the *New York Times* written by Bernie Sanders and Chuck Schumer (3 Feb. 2019). The editorial argues that shareholders should not be rewarded with stock buybacks until other stakeholders, such as employees, receive

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certain benefits. In agreeing or disagreeing, students apply discipline-specific expertise (stock repurchases are a standard topic in introductory accounting courses) to a contemporary issue involving the tension between management's responsibilities to shareholders vs. its responsibilities to a wider group of stakeholders. As one would expect given the prominence of the editorial writers, the opinion piece prompted debate, including rebuttal arguments in high-quality periodicals. I provide students with a sampling to expose them to various perspectives (e.g., Spencer Jakab, *Wall Street Journal* 7 Feb. 2019; Stephen Gandel, *Bloomberg.Com* 4 Feb. 2019) and indicate that whatever position students adopt, they should consider the counterarguments to their thesis.

The assignment is structured as an argumentative essay, because advocating for a position is an important academic skill and a practical disciplinary competency. In designing the assignment, I use best practices such as scaffolding—students submit short drafts, which I comment on, before completing their final papers—recommended in our college's Writing in the Disciplines faculty development program, which uses John C. Bean's *Engaging Ideas: The Professor's Guide to Integrating Writing, Critical Thinking, and Active Learning in the Classroom* (John Wiley & Sons, 2011) as a useful common reading. We also debate the editorial in class after students prepare their first drafts, an activity that works well in honors courses because of small class sizes and high levels of student engagement.

Above all, I strive to make the assignment and course discussion accessible and enjoyable. Often the writing that accounting faculty infuse into their courses focuses on bookkeeping procedures. While writing about bookkeeping may help students master technical concepts, I suspect it dampens rather than sparks a passion for writing. My alternative approach—coaxing students into writing and thinking about contemporary issues connected to their discipline—has the potential to create a virtuous circle in which accounting students read and write more as they lose their dread of doing so. The socially conscious aspect of the assignment renders more engaging a discipline with a reputation for being dry, especially for non-majors. Several students in my course enthusiastically volunteered to present their papers verbally at our college's interdisciplinary honors research conference, and one even pursued revising her paper for the college's selective honors journal. I have promulgated outward some of what I learned about teaching writing in technical disciplines by conducting professional development workshops at our college for faculty interested in infusing writing into technical disciplines.

The students and I have both found satisfaction in making an accounting education part of a liberal education. As an accounting professor, I used to find it challenging to write letters of recommendation touting students' academic abilities after seeing only the limited subset of intellectual skills displayed in mastery of procedural knowledge. But when accounting students conduct research, write essays, and deliver their arguments verbally, a fuller picture emerges. I am better placed to recommend students to four-year colleges and take pride in being among those who helped prepare them.

The author may be contacted at

lboyar@lagcc.cuny.edu.

On Being an Honors Dean

ANDREW MARTINO

Salisbury University

Abstract: The author reflects on the challenges of transitioning from faculty to firsttime dean of an honors college.

Keywords: deans (education); educational leadership; institutional environment; educational cooperation; Salisbury University Honors College

Inever intended to become an academic dean. I was perfectly happy as a faculty member who also served as director of a small but thriving honors program. However, when the opportunity arose to apply for a dean position at a bigger state institution, I reluctantly submitted my vita, with no real expectations of my candidacy going any further.

It has been a little over a year since I became Dean of the Salisbury University Honors College, and it turned out to be one of the best decisions of my professional career even though the change has had its challenges and the learning curve has been formidable. Although running an honors program provides essential experience, running a college is different, and becoming a dean requires a change in mindset.

The first and perhaps biggest difference I faced when becoming a dean was thinking of myself as a full-time administrator. As a program director, teaching was a regular part of my life and was important to me. In my first year as dean, I did manage to teach one course each semester, but during my spring course I found that I had to cancel a number of classes because some administrative duty would come up that required my presence elsewhere. These absences were not fair to my students, so I decided not to teach regularly after that. As a faculty member I prided myself on acting as the critical conscience of the university where I worked, and I was a vocal proponent of faculty rights, especially when it came to shared governance, a basic tenet of our profession, but my perspective as a dean required a different role. A dean has to be a cheerleader and to be more collaborative and open to change. Administrators also do not function within the same time frames as faculty. As a dean, I have found that time has sped up drastically. As a faculty member, I was able to consider projects and initiatives over a greater length of time; as a dean, I am anxious to get on with projects and have a new sense of urgency that did not exist before.

Honors deans have different experiences, but a few lessons I have learned over the past year and a half might prove useful:

- 1. Do not try to do too much in the first year. In most cases, there is a set of policies and practices already in place, and coming in with a desire to change everything at once will not endear you to members of the institution.
- 2. Meetings over coffee go a long way in building good will across the institution. I spent a great deal of my time meeting as many people as I could, often buying coffee for people somewhere on campus. Administrators are too often tied to email, so I took every advantage to get out of the office and meet people on neutral ground.
- 3. Surround yourself with people who can help you. For me, these were people who could help me with budgets and spreadsheets as well as the collection of data. As a literature professor, I was willfully ignorant of these skills, but as a dean I cannot afford to be. The adage "the stronger your team, the stronger the program or college" is true, so make sure you identify and put into place the type of professionals who will be able to help you realize a vision for the future.
- 4. Above all, new honors deans need to be patient and not expect a onesize-fits-all prescription for how to administer an honors college. Each college is different, just as each institution is different. New deans need to get a sense of the institutional culture first before setting out to make it their own.

Sam Schuman said during my NCHC New Directors Institute that honors has the power to make an institutional difference in ways that other units cannot. He spoke these words over ten years ago, and I have never forgotten Brief Ideas

them. As an honors dean, I do not have to function like other academic deans: I can make institutional differences in ways not available to other deans, and the reward can be exponentially greater.

The author may be contacted at

apmartino@salisbury.edu.

ABOUT THE AUTHORS

RICHARD BADENHAUSEN is Founding Dean of the Honors College at Westminster College in Salt Lake City. Currently the Immediate Past President of NCHC, Badenhausen is a two-time member of the NCHC Board of Directors, an NCHC Recommended Program Reviewer, and an NCHC Fellow. He is the 2014 recipient of Westminster's Gore Excellence in Teaching award.

PATRICK BAHLS is Professor of Mathematics and Director of the Honors Program at the University of North Carolina, Asheville. He has taught honors courses in voting theory and urban renewal and has led study abroad trips to Ecuador.

J. ROBERT BAKER is Professor of English, Senior Level, at Fairmont State University, where he has directed the honors program since 2000.

NICOLE BECWAR is the Technical Services Librarian & Archivist at Western Colorado University. She is a graduate of the Colorado Association of Libraries Leadership Institute and a member of the Library Freedom Project. She educates fellow librarians on vendor privacy issues and is passionate about patron privacy and primary source literacy.

KELSEY L. BENNETT directs the Western Colorado University Honors Program. A recipient of a two-year National Endowment for the Humanities grant and an alumna of St. John's College, her essays have appeared widely in scholarly and literary journals. She is the author of *Principle and Propensity: Experience and Religion in the Nineteenth-Century British and American Bildungsroman* (U of South Carolina P, 2014).

GARY H. BISCHOF is Professor of Counselor Education and Counseling Psychology at Western Michigan University. A licensed marriage and family therapist, he teaches courses in counseling and family therapy, and he is former Dean of the Lee Honors College, where he has initiated campus efforts in student mental health.

BRENT M. BLACKWELL is an assistant teaching professor of English and Honors at Ball State University, where he teaches courses on the humanities, the rhetoric of science, and the holocaust.

ELIZABETH BLEICHER is an associate professor of English and interim chair of the Department of Education at Ithaca College. Her scholarship focuses on pedagogy, institutional programs, and family supports for cultivating student success. She is currently designing a first-year seminar focused on metacognition and best practices for navigating the transition to college.

L. BENJAMIN BOYAR, CPA, is Associate Professor at LaGuardia Community College, City University of New York, where he teaches accounting and other business courses. Since 2017, he has chaired the college's interdisciplinary honors research journal.

JOHN CARRELL is Assistant Professor in the Texas Tech University Honors College. He teaches engineering courses in the honors college and has research interests in engineering and interdisciplinary education.

BETH H. CHANEY, PhD, MCHES[®], is Associate Professor of Health Education and Promotion at East Carolina University. Chaney's research includes instrument development and evaluation in health education. She has published over eighty-five peer-reviewed journal articles, with funding from Pro-Change Behavior Systems, the U.S. Department of Education, and the American Cancer Society.

TIM W. CHRISTENSEN, PhD, is Associate Professor of Biology at East Carolina University. Christensen's research includes the molecular basis for DNA replication and packaging. As a Senior Faculty Fellow in the ECU Honors College, he has been active in designing, implementing, and assessing novel curricula.

ALLEAH CRAWFORD, PhD, is Professor and Associate Dean of Academic Affairs in the College of Human Sciences at Auburn University. Previously she was an affiliate faculty member with the honors college at East Carolina University. She served on the multidisciplinary team that redesigned the honors freshman year-long experience.

TEDDI S. DEKA, PhD, is Director of the Honors Program at Missouri Western State University, where she is also Professor of Psychology. She developed a course-integrated retreat model for honors seminars that was presented at the 2016 NCHC Conference. She currently serves on the Alpha Chi National Council as Midwest region secretary.

ANNE DOTTER directs the Johnson County Community College Honors Program and currently serves on the Diversity Committee of NCHC. Dotter's research interests encompass feminist and critical race media theories as well as the intersection of social justice and wellbeing in higher education in the United States.

STEVE ELLIOTT-GOWER is Associate Professor of Political Science and Director of the Honors Program at Georgia College. He teaches international relations and is the author and editor of books and articles on dual-use technology transfer and weapons proliferation as well as, more recently, on the scholarship of teaching and learning.

KATHERINE FORD is Professor and Chair of the Department of Foreign Languages and Literatures at East Carolina University. She is the author of *The Theater of Revisions in the Hispanica Caribbean* (2017) and *Politics and Violence in Cuban and Argentine Theater* (2010) published by Palgrave Macmillan.

TODD FRALEY, PhD, is Associate Dean of the Eastern Carolina University Honors College and an associate professor in the School of Communication. His research centers on the politics of representation in popular culture and the relationship between media and democracy.

STEVE GARRISON is Director of the Redwine Honors Program and a faculty member in political science at Midwestern State University in Wichita Falls, Texas. His research and teaching interests include social movements and political protest, foreign policy, Latin American politics, and research methods.

GALIT GERTSENZON, DMA, is Adjunct Professor at the Ball State University Honors College, where she develops courses on music of the Holocaust, music and politics, and performance workshops. A recipient of the 2018 Vander Hill Award for Distinguished Teaching in Honors Education, Gertsenzon's research and performances focus on the musical expressions of suppressed composers. In addition to teaching, researching, and performing, Gertsenzon owns a private piano studio for gifted children in Yorktown, Indiana.

W. WAYNE GODWIN is Associate Professor of Art and Design at East Carolina University and Director of the Innovation Design Lab, a technology-based environment that uses design thinking to connect academics and industries in developing new products, processes, and policies.

ALEXANDER J. HAMILTON earned a master's in industrial/organizational behavior management at Western Michigan University. He is an innovation analyst at Independence Blue Cross in Philadelphia. He previously worked as a graduate assistant at WMU's Lee Honors College, where he helped organize and deliver a lecture series on student mental health.

ADRIAN J. HERNANDEZ is a doctoral student in counseling psychology at Western Michigan University in Kalamazoo, Michigan. He received his bachelor's degree in psychology and criminal justice from Grand Valley State University in 2017.

JASON T. HILTON is Director of the Honors College and Associate Professor of Education at Slippery Rock University. His scholarship areas include critical pedagogy and technology in education, and he teaches undergraduate and graduate courses related to diversity in education, international education, and qualitative research methods.

HANNAH KEATY is a senior honors student majoring in mid-level education and minoring in math at Texas Tech University. She is currently student-teaching in an eighth-grade math class and is a science TMSCA coach. She will be graduating in May.

JOHN KORSTAD is Professor of Biology at Oral Roberts University in Tulsa, Oklahoma. He is Founding Director of the ORU Honors Program and served in that capacity from 2000 to 2015, after which he has been the networking coordinator through today. He serves on the *JNCHC* Editorial Board and is Co-Chair of the NCHC Science, Math, and Sustainability Committee.

KATE KRUEGER is Director of the Honors Program for the College of Liberal Arts and Sciences at the University of Illinois at Urbana-Champaign. As director, she has developed a curriculum focused on academic and community engagement. She teaches several courses on experiential learning, including a peer-led first-year seminar.

JEFFREY LAMP is Professor of New Testament and Instructor of Environmental Science at Oral Roberts University, Tulsa, Oklahoma. His current research and publication interests are in the areas of ecological hermeneutics and ecotheology. He also serves as editor of *Spiritus: ORU Journal of Theology*.

PHOENIX LITTLE is a junior who is double majoring in psychology and neuroscience and double minoring in Hispanic studies and science at East Carolina University. She is a part of the ECU Honors College and works in association with the Office for Equity and Diversity.

CATHLENA MARTIN, PhD, is Director of the University of Montevallo Honors Program and Associate Professor of Game Studies and Design. In addition to other directorial and teaching duties, she developed a first-year experience course for incoming honors students.

ANDREW MARTINO is Dean of the Honors College at Salisbury University, where he is also Professor of English. He serves on the NCHC Publications Board and the Place as Text Committee. He is a past president of the Northeast Regional Honors Council.

CODY PARISH, MA, is Coordinator of the Redwine Honors Program at Midwestern State University. His current research interests include a wide range of topics within horror cinema, such as interrogations of the nostalgia zeitgeist, representations of children, and the films of director James Wan.

MARY SCHEUER SENTER is Professor of Sociology at Central Michigan University. She teaches courses in social inequality and research methods for sociology majors, is the assessment coordinator for her college, and periodically has the opportunity to teach courses and direct senior projects for the honors program.

ZAHRA TEHRANI is Clinical Assistant Professor at the Purdue University Honors College and Residences. She has a PhD in molecular, cell, and developmental biology and teaches interdisciplinary honors seminars that focus on the intersection of biotechnology, ethics, and public policy.

ADAM WATKINS is Clinical Assistant Professor at the Purdue University Honors College. He has a PhD in English, earned an MFA in poetry, and published his first collection of poems—*Dear, Companion*—in 2012. His literary and pedagogical research focuses on how material, social, and cultural practices shape cognition and learning.

ABOUT THE AUTHORS

GERALD WECKESSER is a faculty member at East Carolina University in the School of Art and Design, teaching in the woodshop and digital fabrication lab. He is also a Faculty Fellow in the ECU Honors College, teaching methods of applying design thinking in the Freshman Colloquia.

ASHLEEN WILLIAMS is the Senior Barksdale Fellow at the Sally McDonnell Barksdale Honors College at the University of Mississippi, where she teaches first-year seminars. As a Mitchell Scholar, she earned a master's degree from the University of Ulster. She also teaches courses in Persian Gulf politics and conflict studies.

ALIZA WONG is Associate Dean and Associate Professor in the Texas Tech University Honors College. A two-time Fulbright scholar, she has spent extensive time in Italy researching questions of nationalism, popular culture, and identity. She has published several works in Italian history and Holocaust and genocide studies.

LEN ZANE is Professor Emeritus of Physics at the University of Nevada, Las Vegas (UNLV). He began UNLV's honors program in 1985 and became its first dean when the program transitioned to a college before he stepped down and returned to the physics department in 2000. He is also a past president of NCHC and an NCHC Fellow.

JOHN ZUBIZARRETA is Director of Honors at Columbia College, a Carnegie Foundation/CASE U.S. Professor of the Year, Past President of NCHC and SRHC, and recipient of the 2018 NCHC Sam Schuman Award. He is co-editor of NCHC monographs *Inspiring Exemplary Teaching and Learning: Perspectives on Teaching Academically Talented College Students* (2008) and *Breaking Barriers in Teaching and Learning* (2018).

ABOUT THE NCHC MONOGRAPH SERIES

The Publications Board of the National Collegiate Honors Council typically publishes two to three monographs a year. The subject matter and style range widely: from handbooks on nuts-and-bolts practices and discussions of honors pedagogy to anthologies on diverse topics addressing honors education and issues relevant to higher education.

The Publications Board encourages people with expertise interested in writing such a monograph to submit a prospectus. Prospective authors or editors of an anthology should submit a proposal discussing the purpose or scope of the manuscript; a prospectus that includes a chapter by chapter summary; a brief writing sample, preferably a draft of the introduction or an early chapter; and a *curriculum vitae*. All monograph proposals will be reviewed by the NCHC Publications Board.

We accept material by email attachment in Word (not pdf).

Direct all proposals, manuscripts, and inquiries about submitting a proposal to the General Editor of the NCHC Monograph Series:

Dr. Jeffrey A. Portnoy General Editor, NCHC Monograph Series Honors College Perimeter College Georgia State University

jportnoy@gsu.edu

NCHC Monographs & Journals

Assessing and Evaluating Honors Programs and Honors Colleges: A Practical Handbook by Rosalie Otero and Robert Spurrier (2005, 98pp). This monograph includes an overview of assessment and evaluation practices and strategies. It explores the process for conducting self-studies and discusses the differences between using consultants and external reviewers. It provides a guide to conducting external reviewes along with information about how to become an NCHC-Recommended Site Visitor. A dozen appendices provide examples of "best practices."

Beginning in Honors: A Handbook by Samuel Schuman (Fourth Edition, 2006, 80pp). Advice on starting a new honors program. Covers budgets, recruiting students and faculty, physical plant, administrative concerns, curriculum design, and descriptions of some model programs.

Breaking Barriers in Teaching and Learning edited by James Ford and John Zubizarreta (2018, 252pp). This volume—with wider application beyond honors classrooms and programs—offers various ideas, practical approaches, experiences, and adaptable models for breaking traditional barriers in teaching and learning. The contributions inspire us to retool the ways in which we teach and create curriculum and to rethink our assumptions about learning. Honors education centers on the power of excellence in teaching and learning. Breaking free of barriers allows us to use new skills, adjusted ways of thinking, and new freedoms to innovate as starting points for enhancing the learning of all students.

The Demonstrable Value of Honors Education: New Research Evidence edited by Andrew J. Cognard-Black, Jerry Herron, and Patricia J. Smith (2019, 292pp) Using a variety of different methods and exploring a variety of different outcomes across a diversity of institutions and institution types, the contributors to this volume offer research that substantiates in measurable ways the claims by honors educators of value added for honors programming.

Fundrai\$ing for Honor\$: A Handbook by Larry R. Andrews (2009, 160pp). Offers information and advice on raising money for honors, beginning with easy first steps and progressing to more sophisticated and ambitious fundraising activities.

A Handbook for Honors Administrators by Ada Long (1995, 117pp). Everything an honors administrator needs to know, including a description of some models of honors administration.

A Handbook for Honors Programs at Two-Year Colleges by Theresa James (2006, 136pp). A useful handbook for two-year schools contemplating beginning or redesigning their honors program and for four-year schools doing likewise or wanting to increase awareness about two-year programs and articulation agreements. Contains extensive appendices about honors contracts and a comprehensive bibliography on honors education.

The Honors College Phenomenon edited by Peter C. Sederberg (2008, 172pp). This monograph examines the growth of honors colleges since 1990: historical and descriptive characterizations of the trend, alternative models that include determining whether becoming a college is appropriate, and stories of creation and recreation. Leaders whose institutions are contemplating or taking this step as well as those directing established colleges should find these essays valuable.

Honors Composition: Historical Perspectives and Contemporary Practices by Annmarie Guzy (2003, 182pp). Parallel historical developments in honors and composition studies; contemporary honors writing projects ranging from admission essays to these as reported by over 300 NCHC members.

Honors Programs at Smaller Colleges by Samuel Schuman (Third Edition, 2011, 80pp). Practical and comprehensive advice on creating and managing honors programs with particular emphasis on colleges with fewer than 4,000 students.

The Honors Thesis: A Handbook for Honors Directors, Deans, and Faculty Advisors by Mark Anderson, Karen Lyons, and Norman Weiner (2014, 176pp). To all those who design, administer, and implement an honors thesis program, this handbook offers a range of options, models, best practices, and philosophies that illustrate how to evaluate an honors thesis program, solve pressing problems, select effective requirements and procedures, or introduce a new honors thesis program.

Housing Honors edited by Linda Frost, Lisa W. Kay, and Rachael Poe (2015, 352pp). This collection of essays addresses the issues of where honors lives and how honors space influences educators and students. This volume includes the results of a survey of over 400 institutions; essays on the acquisition, construction, renovation, development, and even the loss of honors space; a forum offering a range of perspectives on residential space for honors students; and a section featuring student perspectives.

If Honors Students Were People: Holistic Honors Education by Samuel Schuman (2013, 256pp). What if honors students were people? What if they were not disembodied intellects but whole persons with physical bodies and questing spirits? Of course . . . they are. This monograph examines the spiritual yearnings of college students and the relationship between exercise and learning.

Inspiring Exemplary Teaching and Learning: Perspectives on Teaching Academically Talented College Students edited by Larry Clark and John Zubizarreta (2008, 216pp). This rich collection of essays offers valuable insights into innovative teaching and significant learning in the context of academically challenging classrooms and programs. The volume provides theoretical, descriptive, and practical resources, including models of effective instructional practices, examples of successful courses designed for enhanced learning, and a list of online links to teaching and learning centers and educational databases worldwide.

NCHC Monographs & Journals

Occupy Honors Education edited by Lisa L. Coleman, Jonathan D. Kotinek, and Alan Y. Oda (2017, 394pp). This collection of essays issues a call to honors to make diversity, equity, and inclusive excellence its central mission and ongoing state of mind. Echoing the AAC&U declaration "without inclusion there is no true excellence," the authors discuss transformational diversity, why it is essential, and how to achieve it.

The Other Culture: Science and Mathematics Education in Honors edited by Ellen B. Buckner and Keith Garbutt (2012, 296pp). A collection of essays about teaching science and math in an honors context: topics include science in society, strategies for science and non-science majors, the threat of pseudoscience, chemistry, interdisciplinary science, scientific literacy, philosophy of science, thesis development, calculus, and statistics.

Partners in the Parks: Field Guide to an Experiential Program in the National Parks by Joan Digby with reflective essays on theory and practice by student and faculty participants and National Park Service personnel (First Edition, 2010, 272pp). This monograph explores an experiential-learning program that fosters immersion in and stewardship of the national parks. The topics include program designs, group dynamics, philosophical and political issues, photography, wilderness exploration, and assessment.

Partners in the Parks: Field Guide to an Experiential Program in the National Parks edited by Heather Thiessen-Reily and Joan Digby (Second Edition, 2016, 268pp). This collection of recent photographs and essays by students, faculty, and National Park Service rangers reflects upon PITP experiential-learning projects in new NPS locations, offers significant refinements in programming and curriculum for revisited projects, and provides strategies and tools for assessing PITP adventures.

Place as Text: Approaches to Active Learning edited by Bernice Braid and Ada Long (Second Edition, 2010, 128pp). Updated theory, information, and advice on experiential pedagogies developed within NCHC during the past 35 years, including Honors Semesters and City as Text[™], along with suggested adaptations to multiple educational contexts.

Preparing Tomorrow's Global Leaders: Honors International Education edited by Mary Kay Mulvaney and Kim Klein (2013, 400pp). A valuable resource for initiating or expanding honors study abroad programs, these essays examine theoretical issues, curricular and faculty development, assessment, funding, and security. The monograph also provides models of successful programs that incorporate high-impact educational practices, including City as Text[™] pedagogy, service learning, and undergraduate research.

Setting the Table for Diversity edited by Lisa L. Coleman and Jonathan D. Kotinek (2010, 288pp). This collection of essays provides definitions of diversity in honors, explores the challenges and opportunities diversity brings to honors education, and depicts the transformative nature of diversity when coupled with equity and inclusion. These essays discuss African American, Latina/o, international, and first-generation students as well as students with disabilities. Other issues include experiential and service learning, the politics of diversity, and the psychological resistance to it. Appendices relating to NCHC member institutions contain diversity statements and a structural diversity survey.

Shatter the Glassy Stare: Implementing Experiential Learning in Higher Education edited by Peter A. Machonis (2008, 160pp). A companion piece to Place as Text, focusing on recent, innovative applications of City as Text[™] teaching strategies. Chapters on campus as text, local neighborhoods, study abroad, science courses, writing exercises, and philosophical considerations, with practical materials for instituting this pedagogy.

Teaching and Learning in Honors edited by Cheryl L. Fuiks and Larry Clark (2000, 128pp). Presents a variety of perspectives on teaching and learning useful to anyone developing new or renovating established honors curricula.

Writing on Your Feet: Reflective Practices in City as Text[™] edited by Ada Long (2014, 160pp). A sequel to the NCHC monographs Place as Text: Approaches to Active Learning and Shatter the Glassy Stare: Implementing Experiential Learning in Higher Education, this volume explores the role of reflective writing in the process of active learning while also paying homage to the City as Text[™] approach to experiential education that has been pioneered by Bernice Braid and sponsored by NCHC during the past four decades.

Journal of the National Collegiate Honors Council (JNCHC) is a semi-annual periodical featuring scholarly articles on honors education. Articles may include analyses of trends in teaching methodology, articles on interdisciplinary efforts, discussions of problems common to honors programs, items on the national higher education agenda, and presentations of emergent issues relevant to honors education.

Honors in Practice (HIP) is an annual journal of applied research publishing articles about innovative honors practices and integrative, interdisciplinary, and pedagogical issues of interest to honors educators.

UReCA, The NCHC Journal of Undergraduate Research and Creative Activity, is a web-based, peer-reviewed journal edited by honors students that fosters the exchange of intellectual and creative work among undergraduates, providing a platform where all students can engage with and contribute to the advancement of their individual fields. To learn more, visit <<u>http://www.nchc-ureca.com</u>>.

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