A Relational Model for Honors Education: From Contagion to Permeability

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Abstract: This article considers the value of honors education beyond its marked contributions to enrollment management goals. Suggesting that quantitative assessments toward understanding the value of honors fail to capture its breadth, interdisciplinary focus, and engagement, authors posit a new way of measuring impacts from "contagion model" (spillover to campus and beyond) to "permeability model" (interface across campus). Pointing to the benefits of permeability for both honors and the broader campus communities, authors encourage practitioners to foster exchange in curricular offerings, spatial inputs, scholarly outputs, extramural funding, and institutional support. The meaning and history of organizational permeability is explored, and examples are provided.

Keywords: higher education—honors programs & colleges; organizational resilience; permeability of group boundaries; educational innovation; Northern Illinois University (IL)—Honors Program; South Dakota State University (SD)—Honors Program; California Lutheran University (CA)—Honors Program; Texas A&M University (TX)—Honors Program; University of Louisville (KY)—Honors Program; University of Montana (MT)—Honors Program; University of Houston (TX)—Honors Program; Virginia State University (VA)—Honors Program; Virginia Tech (VA)—Honors Program; Binghamton University (NY)—Honors Program

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Many honors leaders struggle to persuasively articulate the value of honors education, particularly within their institutional ecosystems. Honors programs and colleges are often marginalized and under-resourced, especially in an era broadly characterized by declining enrollments, tightening budgets, and competitive, decentralized budget models in higher education (June 2022). The most common trend in communicating the value of honors to colleagues and administrators now follows the assessment movement (Cognard-Black, Herron, and Smith 2019). The attempt to quantify the value of honors education in terms of contributions to recruitment, generation of student credit hours, retention, completion rates, and other enrollment management goals is necessary and understandable considering the economic realities of higher education today.

While the assessment perspective is surely here to stay, it has limitations for articulating the value of honors education. First, a major difficulty in measuring student outcomes has been selection bias, given that honors attracts students who are already high achieving (Cognard-Black 2019, 10; Shushok 2006). Second, a focus purely on the effects of honors on individual student outcomes overlooks the institutional and interinstitutional benefits of honors (Ziegler et al. 2023). Third and more broadly, the quantitative assessment

approach to understanding the value of honors fails to capture the breadth, interdisciplinarity, and engagement that coalesce around the curiosity, intellectual risk-taking, ethical perspectives, and openness to innovation fostered by honors programs. Although these features are not wholly unquantifiable, most assessment regimes are not calibrated in ways that effectively capture their value.

Another prevalent approach to conceptualizing the value of honors acknowledges what is meaningful about honors pedagogy and holds that the good effects of honors education seep into the rest of campus and improve the overall climate of the institution. This way of assessing honors value might be labeled the "contagion model." Whether from students, faculty, staff, curriculum, or the engagingly innovative nature of educational experiences, the enrichment that occurs in honors spaces, it is argued, naturally spills over to the rest of campus. James J. Clauss, for example, argues that honors students bring their "engaged and sometimes aggressive curiosity" to the rest of their classes and can infuse this curiosity into the learning environment for others (Clauss 2011, 96). Similarly, honors faculty who deploy pedagogies leading students to "inquire, to explore, to discover, to collaborate, to create, to take risks" know how to do this outside as well as inside of honors classrooms (Ferguson and Reubel 2015, 12; Miller, Silberstein, and BrckaLorenz 2021). The contagion model, however, is passive, and its implied unidirectionality (from honors to campus) could perpetuate the perceived elitism of honors programs. Developing more intentional models for honors education is therefore important as the honors community continues to reflect on how to transcend its reputational stigma of elitism and meaningfully address issues of access and inclusivity.

In responding to continued criticism of honors elitism, Badenhausen and Buss make a strong case for the evolution of honors programs and approaches while also suggesting that honors practitioners need to do more to engage campus partners (Badenhausen and Buss 2022). They mention several important tactics like inviting colleagues to honors conferences and publishing about honors in outlets beyond those in honors. Suggestions such as these are crucial to the health of honors programs and signal a needed move beyond the contagion model. Yet a more significant conceptual shift in how the honors community conceives the value of honors education is necessary if honors is to serve as a true space for pedagogical innovation, where it is possible to break down institutional and disciplinary silos while engaging students in transformative inquiry and preparing them to solve the world's complex and intractable problems.

We propose a move from envisioning the value of honors as a matter of contagion or spillover to a *model of permeability*. This metaphor of permeability speaks to the dynamic nature of the honors interface, with information, experiences, people, and wisdom moving and flowing in and out of honors spaces. Permeability as a metaphor reframes honors from a privileged space to one in which honors educators regularly and intentionally encourage themselves and their students to adopt openness to inquiry, stepping out of the bounds of their own discipline and maintaining epistemic modesty in a way that is consistent with and that complements lifelong learning.

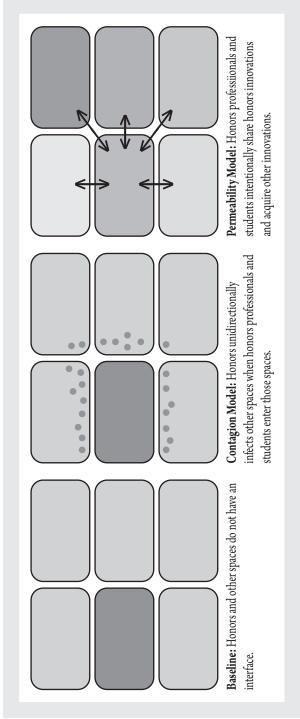
Figure 1 illustrates three conceptualizations of the influence of honors education. First, the baseline, traditional "silo" model of higher education on the left has distinct organizational boundaries and little interaction across units. In the middle of the figure, the contagion approach to honors education centers honors as the organizational unit of interest and its active participants as the vectors for information exchange. Finally, on the right, a graphical representation of our proposed permeability framework shows active, intentional boundary crossing—both from honors to other spaces and from other spaces to honors.

Here we outline the permeability model as a relational approach between honors and traditional academic spaces, pedagogies, and practices. The permeability approach encourages a shift in the perception of honors leaders and practitioners regarding the role of honors in innovation and engagement, emphasizing the need for active collaboration rather than an export model. We unfold three related themes: 1) an elaboration on the concept of permeability; 2) arguments for the usefulness of the permeability metaphor; and 3) a case study of the cross-institutional team that established the USDA-funded Justice Challenge program, an example of how the permeability of honors has led to beneficial educational outcomes.

MEANING OF PERMEABILITY

From its inception, honors education has sought to bring the best and most innovative teaching practices to more students than previously had access to them. We recognize that the rise of honors programs and colleges in the U.S. evolved as a response to Sputnik in 1956 to ensure that the U.S. could compete educationally with the USSR. This is to say that honors education emerged as an effort to spread "elite" education to institutions beyond the small, exclusive Ivy League (and their ilk) with an expansion to the broader educational community (Guzy 2019, 19; for earlier versions of

FIGURE 1. MODELING INFLUENCE IN HONORS EDUCATION



honors education, see Rinn 2006; Smith 2020). The establishment of honors education—first through the Inter-University Committee on the Superior Student (ICSS) in 1957, followed by the establishment of the National Collegiate Honors Council in 1965—shows that permeability has long been at the core of the honors mission. To capitalize on this core founding mission, we propose a paradigm shift regarding access, communication, and learning between honors and other spaces in higher education.

Permeability is a way to conceive of honors as a porous space, containing meaningful, intentional inward and outward communication and collaboration. Permeability is a well-known phenomenon in natural sciences where it refers to the extent to which an infrastructure (cell membrane, magnetic field, soil, etc.) allows a material to move through it. In the Permeability Model for honors, we define infrastructure as the interface between honors and traditional spaces: for example, honors classes and traditional classes, or honors programming and traditional programming. Infrastructures may have inherent characteristics that yield lower or higher permeability. For example, the permeability between honors practices and a remedial course may be lower than the permeability between honors practices and a traditional course. This difference makes sense because a course dedicated to improving basic reading and writing may not have sufficient bandwidth for the deeper dive into content materials characteristic of honors pedagogy; in the traditional classroom, though, some honors pedagogies may be both fitting and stimulating for students and faculty alike. Just as some structural differences influence the permeability between honors and traditional spaces, factors within the control of honors can contribute to permeability.

Like cells, organizations have aspects of permeability. Earlier theory tended to view organizations as formalized, rigid structures (Weber 1946) that either spurned change or adapted grudgingly when presented with few viable alternatives (Hannan and Freeman 1984). Systems-thinking and complexity-leadership approaches note, however, that current social conditions—along with the magnitude of the existential challenges wrought by each challenge to the status quo—require organizations to be more dynamic and fluid to accomplish their goals and survive (Heifitz, Grashow, and Linsky 2009). An extension of Kuhn's argument (Kuhn 1996) is that the traditional siloing of disciplines and continued perpetuation of existing knowledge bases would leave us unable to meet the challenges of today's world. Organizational permeability—or the degree to which an organization's boundaries are less defined, more open to external stakeholders' influences, and more supportive

of stronger social subunits within (Leifer and Delbecq 1978)—is increasingly viewed as a positive, adaptive characteristic in today's information age (Uhl-Bein, Marion, and McKelvey 2007). We believe that honors education's organizational permeability now uniquely positions us to convene diverse, agile, multidisciplinary teams to address complex contemporary questions. We call for the honors community to embrace permeability in honors and to take on the challenge of understanding academic spaces as complicated organisms that interact and change one another in a multitude of ways.

CATALYZING PERMEABILITY OF HONORS WITHIN INSTITUTIONS

Students

In making the argument that honors higher education spaces ought to be permeable, we must confront the paradox that honors spaces are most often apart or separate and that the identification of those who belong in them brings with it a notion that there are those who do not. Each honors college and program sets its own criteria for eligibility. Some programs require an application from eligible students while others require an application from students who are not automatically eligible as an alternative accessible pathway into honors. To reflect the spirit of permeability, we hold that two principles ought to be held in high regard, whatever the specific mechanism for entry into an honors program. First, students make a choice to take part in an honors program. Second, not every student who is honors-qualified or has honors potential will choose to participate. In a sense, then, there are "honors students" inside and outside of demarcated honors spaces, which makes it part of the responsibility of honors programs to reach both sets of students. No matter how welcoming and inviting application processes are, not all barriers to entry can be removed for students who, for one reason or another, do not identify as honors students.

Names matter, and we recommend that we start thinking of honors students as those who are honors-pursuing students. While the terminology may be clunky, the exercise of stripping away the essentialism of "honors" and "non-honors" and practicing speech that helps honors educators function across honors and traditional spaces is a step in the direction of adopting the permeability model. Honors students will be those who *do* rather than *are*, which is in line with the idea that honors is an ideal environment in which to innovate and explore novel educational strategies.

Honors students tend to be highly engaged in educational innovations, which they are most likely to embrace when failure is divorced as much as is feasible from grades (Chancey, Fine, and Lease Butts 2019). Honors-qualified students who have chosen not to join an honors program are arguably just as important to the success of honors as those who do join. If what happens within the honors space is to serve as a catalyst for innovations beyond the space of honors, then honors-qualified students who are not pursuing honors may be the chemical reactants most likely to react to the catalyst to form a desired outcome. Collegiate honors spaces are not unique in their interdisciplinarity and commitment to worthwhile projects, but their critical density of students, faculty, and staff committed to such endeavors can create a vessel and environment for catalysis—an educational space where all can convene to make progress on grand challenges. When non-honors-pursuing students witness enough early reactors in classes that engage with novel educational approaches, the engagement begins to feel expected or commonplace rather than novel. Thus, both honors-pursuing and non-honors-pursuing students play keys roles in the permeability of honors, acting respectively as catalysts and early reactors.

If honors permeability is an asset to higher education that provides multiple stakeholders an avenue to engage intellectually, then it is imperative that leaders in honors foster exchange across the interface. One way to make honors more permeable to the broader university community is to allow non-honors-pursuing students to enroll in honors courses. This practice requires careful enrollment management and is best done in such a way as not to compromise the intimate and rich discussion-based learning environment that is one of the distinguishing hallmarks of honors. Students outside honors may enrich the honors classroom by bringing more diverse perspectives and experiences to discussion and analysis. They may benefit from exposure to honors pedagogy, high-impact practices, and engagement with other motivated and high-performing peers.

Making honors physical spaces and programming welcoming to other students is another way to enhance permeability in honors. Regardless of institutional policy, sometimes traditional students may perceive honors spaces as off-limits, contributing to a perception of isolation, elitism, and disconnectedness in honors. While space use must prioritize learning outcomes linked to formal participation in the honors community, in many instances honors gathering spaces, common areas, and classrooms can be made more accessible and welcoming to the broader university community, thereby

providing opportunities to expand and enhance conversation, collaboration, and engagement.

Faculty

If we question essentialist notions of the so-called "honors student," we also need to consider honors faculty as an avenue for realizing the benefits of permeability. There are many ways to determine who teaches in honors and when, but most honors faculty teach in both honors and traditional contexts, thus already representing a kind of permeability. Even so, the status of "honors faculty" may seem to convey worthiness of teaching in honors that is not shared by all faculty. Implementing official honors faculty status criteria and processes is a classic practice. As Peters outlines in "Implementing Honors Faculty Status: An Adventure in Academic Politics," many compelling reasons exist to attempt such a system (2009). The alternative often leaves honors administrators in situations where they cannot secure teaching resources or control the quality of these resources. That said, as Peters admits, such systems can come across as elitist and can build resentment among faculty at the institution. Without therefore arguing for or against implementing honors faculty status, we caution against establishing these boundaries in a fixed, non-permeable manner.

The continual emphasis on improving teaching practices can involve both teachers with honors experience and those with little current experience who can nevertheless profit from and become adept in active learning practices. Toward these goals and enhancing permeable boundaries, partnerships between honors and campus spaces designed for pedagogical exploration (e.g., Centers for Teaching and Learning, Faculty/Staff Development, Digital Transformation) can be created and enhanced. In addition to highlighting pedagogies such as City as Text™ that have developed within honors spaces, linkages can be made between honors practices and those that are similar and arise from other spaces. Faculty fellowships can be created to invite faculty with little or no experience in honors to attend an honors conference or NCHC Faculty Institute. Honors faculty might similarly be supported to attend a conference focused on the scholarship of teaching and learning in their discipline or designed to cultivate interdisciplinarity. Again, permeability signifies a two-way transfer, and importing active teaching practices into honors is as important as the reverse.

CATALYZING PERMEABILITY OF HONORS ACROSS ACADEMIA

The deployment of scholarship as a tool to facilitate permeability across disciplines in higher education has the potential to improve the dissemination of honors practices beyond honors spaces and to provide new inspiration for honors practitioners from scholars who are also invested in transformational interdisciplinary work outside of honors. Currently, four primary venues, administered by one of two organizations, publish the work of honors for honors audiences: Journal of the National Collegiate Honors Council, Honors in Practice, NCHC Monograph Series, and Journal of the European Honors Council. One might also count Journal for the Education of the Gifted as a fifth regular outlet since 1978. Other avenues for publishing in honors have risen and fallen over time, leaving scholars of honors with the options above. There are a few additional routes for scholarly dissemination of work in honors: the National Collegiate Honors Council annual conference; regional and state honors conferences; the biannual Honors Education at Research Universities conference; the National Society for Minorities in Honors annual conference; and the Council on Honors Education monthly meetings and annual conferences. These scholarly venues for publication and presentation enhance the exchange of bright ideas and practices within honors but arguably offer a passive approach, at best, to achieving permeability between honors and other institutional and interinstitutional spaces.

Looking at the outward flow of information, honors pedagogical innovations are not often part of higher education discourse. Within the honors community, we have long characterized honors as a pedagogical laboratory for universities (Achterberg, Wetzel, and Whitbeck 2002; Bell 2008; Mullins 2005). Indeed, Kuh's (2008) milestone publication *High-Impact Educational Practices* can be traced back to the NCHC Undergraduate Summit in 2001 and the subsequent article AAC&U President Carol Schneider published in the *JNCHC* (Kotinek 2017). Between discussion-based classrooms, undergraduate research, Place as Text pedagogy, and other practices, honors has made its mark on active learning, interdisciplinary spaces, and a learning arena that is radical and transgressive (Zubizarreta 2022; Badenhausen 2020). However, broader discussions on high-impact practices do not tend to engage with honors literature. For instance, a review article on the literature of high-impact practices in *Higher Education* does not reference any honors contributions (Kilgo, Ezell Sheets, and Pascarella 2015).

To live up to the original charge of honors education as a pedagogical laboratory and to maximize the permeability between honors and traditional spaces, honors professionals should be committed to pursuing scholarly outputs beyond those with primarily honors audiences. We propose three foci for accomplishing this goal: 1) publication of honors initiatives beyond the venues aimed strictly at honors-focused audiences; 2) presentation of honors initiatives at disciplinary or other non-honors conferences, particularly when the work presented explores the interface or overlap between honors and traditional education; and 3) application for grants and other resources in spaces that have traditionally focused on non-honors areas. These foci can serve as conduits through which the benefits of dissemination and resource acquisition can flow more freely between honors and traditional spaces. Successful permeability will be predicated on prerequisites such as developing familiarity with other disciplines and intentionally partnering with campus entities. To transcend such boundaries and to increase permeability between honors and traditional populations and spaces, honors professionals must work to overcome potential prejudices in higher education against the relevance of honor education.

Publishing beyond Honors

Investigating disciplinary concepts to understand and actuate knowledge transfer to and from honors is a foundational concept of the permeability model. As outlined in the case study that follows, we have been collaborating at the intersection of honors and agriculture and can attest that published collaborations between honors and agriculture are rare. If one peruses the first five pages of results from a simple Google Scholar search of "honors and agriculture," one finds just eight peer-reviewed articles, two undergraduate theses, and one master's thesis between 1974 and the present day. To the best of our knowledge, this search was a successful one, yielding only two articles exploring the interface of honors and agriculture; out of the eight resultant and two additional known articles, six were published by members of this team committed to expanding permeability between honors and agriculture. Though agricultural fields are underrepresented within honors (Kutzke et al. 2020), the dearth of exploration of the interface between the two realms is highlighted by just ten peer-reviewed articles spanning half a century. This exercise in various fields of study yields similar results. For instance, a "business and honors" search produces 20 results, but none describes honors scholarship in the discipline. A similar search for "honors and pharmacy"

yielded three peer-reviewed articles and one honors capstone. Too often the value of honors is based on speculation and anecdotal evidence. Implementation of the permeability concept via primary research at the interface between honors and traditional disciplines can provide sound evidence of the value of honors. As most journals have ethics clauses stating that submitted content must be original and not duplicated elsewhere, we advocate alternating publication within honors and in traditional disciplinary spaces with each new discovery at the interface as appropriate. Publishing concepts broadly within honors and traditional scholarly outlets can further extend awareness of the value of honors.

Expanding Participation at Honors Conferences and beyond

While inviting traditional faculty to NCHC meetings and events has already been suggested (Badenhausen and Buss 2022), we can go further, inviting keynote speakers, providing workshops, and more from outside the honors spaces for the purpose of infusing our practices with ideas from other relevant arenas. One of the joys of honors publications is the true interdisciplinarity in the sense that faculty from different disciplines are not required to speak the same academic language. This very journal is ecumenical about the length of articles, types of articles, and citation styles, honoring the different home disciplines of the authors. Our suggestion here is not to dampen this variety nor to professionalize honors into speaking the same language in the way most high-impact journals require. Rather, we urge learning to speak more than one language, translating our work into more spaces, and learning what there is to learn about great teaching from non-honors educational arenas.

Pursuit of Extra-Honors Funding

Extramural funding has great potential for enhancing the permeability of honors. Much like honors education, some federal funding opportunities can be thought of as leveraging the potential of permeability via transdisciplinarity, incorporating multiple talented individuals to address large-scale challenges, and promoting access to said stakeholders. While there exist several examples of funded honors projects within the National Endowment for the Humanities (NEH), this is not the case with some of the leading science-based agencies. Two of the authors of this article—Nichols and Bott-Knutson—collaborated on an institution-level Higher Education Challenge Grant (HEC) funded by the USDA for a project designed to leverage honors

in a way that would maximize the exposure of students and faculty from the honors, agricultural, and educational colleges to the grand challenges (as defined by USDA) of our time. Nichols and Bott-Knutson observed the tremendous appeal and impact of this project, which directly reached audiences from all academic colleges at South Dakota State University (SDSU) and within local communities (Nichols et al. 2019; Bott-Knutson et al. 2019). The story of the next grant effort involving honors and traditional disciplines unfolds in the case study below and serves as an incubator for the permeability model.

A CASE STUDY IN PERMEABILITY: THE JUSTICE CHALLENGE COLLABORATION

As a case study of how a permeability approach can yield impressive fruits for higher education, we offer our own experience in creating a collaborative learning and teaching space with tangible results for maximizing and expanding honors education. We met as members of a student engagement committee of an honors organization, starting with a loose agenda that gave way to conversations about how we can prepare honors students to wrestle with pressing challenges of our times in productive ways that lead to workable solutions. Discussions centered on the identification of these global challenges as well as on brainstorming avenues to bring honors students, known for their engagement and ingenuity, together with the resources necessary to fuel their success. The expertise across our group members was broad, including the humanities, social sciences, natural sciences, engineering, and leadership studies, among other areas, and thus formed a strong base from which to apply for funding to support student-engaged projects.

The ongoing and sustained interactions nurtured an increasingly strong group culture to such a degree that its members were willing to undertake ambitious projects, and having Nichols and Bott-Knutson on the team meant that we also had the benefit of their experience with a successful USDA grant that linked honors students with traditional students, honors with traditional colleges, and honors with community partners. Bott-Knutson also held an Agriculture and Food Research Initiative's Education and Literacy Initiative (AFRI ELI) USDA grant. This grant sought to prepare the future workforce through research and extension experiences and intentionally embedded the South Dakota State University Honors College as a source of leadership for a weekly professional development series for participants; this series quickly became known across campus and began serving participants from

two additional REU summer programs (Nepal et al. 2019; 2020). One of the many benefits of intentionally enhancing permeability at the honors-agricultural interface was the doubling of the percentage of agriculture-degree pursuing students as a proportion of total students within the honors college in the span of seven years.

The momentum of the SDSU HEC and AFRI ELI grants that predated the rise of our collaboration was harnessed in the form of a multi-institutional Higher Education Challenge grant that involved honors collaborators from fourteen institutions of higher education. The intent of this initiative has been to engage honors students in the systems thinking and transdisciplinarity needed to address the world's most wicked problems (Appel et al. 2023; Kotinek et al. 2023). Despite a generally positive review, our first version of the USDA HEC multi-institutional grant proposal was not selected for funding. As we worked to strengthen the proposal for resubmission, we expanded the team's boundaries further by drawing in content experts (i.e., from food security, climate, and sustainable agriculture) who were not affiliated with honors as well as drawing on content knowledge from experts in other domains (e.g., assessment). With this expanded expertise, the project has been honed and strengthened (and was funded on its second submission), providing an example of the benefits of permeable boundaries. This initiative to support the honors student experience was enhanced by participation of faculty and administrators whose roles are normally outside of the honors space. In this endeavor, honors served as a loom from which the fabric of solutions could be woven while honors students, the weavers, drew together their knowledge and skill sets to produce tapestries that will be our future.

Ever-learners, members of this collaborative are energized by new information, new ways of thinking and studying, and opportunities to engage with new approaches, further showing how systems can adapt in permeable ways. The need to retool skills and to grow constantly has been a driving force, one that led us to pursue workshops, training programs, partnerships, and literatures to deepen our understandings in yet another example of porous boundaries. Though we were already thriving in our interdisciplinary spaces, change and adaptation are paramount in an undertaking such as the Justice Challenge.

Our collaborative achieved many of its goals and continues to move forward toward emerging possibilities and aspirations. Along the way have been surprises, unintended consequences, and lessons learned. We celebrate these outcomes alongside the anticipated ones, for we believe they have contributed just as much to our understanding and the understanding of our students.

Table 1 provides an overview of our permeability model as it applies to the three spheres of students, faculty, and scholarship as well as the firsthand benefits of our collaborative's permeable approach.

CONCLUSION

Our own practice in the Justice Challenge (and beyond) enmeshes us in ongoing partnership across epistemological, departmental, and role boundaries, demonstrating the successes that result from a permeable approach to honors education. For our students, we have generated an honors-infused, but not honors-exclusive, space to tackle wicked problems that face our world.

Table 1. Overview: Permeability in Honors Education

Sphere of Influence	Suggestions for Promoting Honors' Permeability in Sphere	Justice Challenge Collaborative's Exercise of Permeability in Sphere
Students	Solicit students, both inside and outside honors, to engage in honors-informed educational experiences. Eliminate or minimize barriers—physical, admissions-related—between "honors-pursuing" and "non-honors-pursuing" students.	Students from 16 institutions across the nation, both from and outside their institution's honors programs, gather to address sustainability grand challenges. We emphasized securing a diverse student participant pool: diversity of home institutions, social identities, majors, etc.
Faculty	 Explore and trouble demarcation of "honors faculty" to lessen barriers to participation. Actively engage colleagues outside of formal honors spaces on questions, courses, etc. of mutual interest. 	The collaborative comprises faculty from multiple disciplines, both inside and outside of honors, and continues to grow as other colleagues with valuable talents are identified. We hold regular meetings to exchange ideas related to grant work and to our practice generally.
Scholarship	 Actively publish in fora outside of honors—and likewise invite relevant scholarship for publication in honors-targeted fora. Pursue funding opportunities that intertwine honors with other key stakeholders. 	Our grant has catalyzed collaboration with faculty and community partners outside the grant team to realize its goals. Such sustained collaboration has led to the development of a multipronged, multidisciplinary research agenda that continues to invite conversation in varied scholarly contexts.

For faculty, our work has led to interinstitutional, interdisciplinary teamwork that has yielded new directions for high-impact pedagogical approaches. For scholarship, our approach of welcoming many and engaging deeply with questions of interest has led to fruitful research collaborations on sustainability, student learning, and professional development topics.

What permeability looks like in practice may differ from one campus to another. As noted in the NCHC Definition of Honors Education, honors opportunities are "broader, deeper, or more complex than comparable learning experiences" and are "tailored to fit the institution's culture and mission"; at the same time, honors educators must partner with other institutional stakeholders who are likewise invested in, interested in, or already doing transformational interdisciplinary work (NCHC Board of Directors 2013). The permeability approach models the openness to inquiry and epistemic modesty that we encourage in our students. Not only is a posture of permeability the most germane for gaining new knowledge, but it leads to nimble, adaptive, and shifting collaborations that foster solving complex problems. By leaning into its permeability, honors education can expand its positive impact on students, faculty, institutions, and communities.

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REFERENCES

- Achterberg, Cheryl, Amanda Wetzel, and Emily Whitbeck. 2002. "Student-Led Quality Teams in the Classroom." *Journal of the National Collegiate Honors Council* 3, no. 1 (Spring/Summer): 75–88.
- Appel, Heidi, Rebecca C. Bott-Knutson, Joy Hart, Paul Knox, Andrea Radasanu, Leigh Fine, Timothy Nichols, et al. 2023. "Teaching and Learning in the Fourth Space: Preparing Scholars to Engage in Solving Community Problems." In *Honors Colleges in the 21st Century*, edited by Richard Badenhausen, 441–75. Lincoln, NE: National Collegiate Honors Council.
- Badenhausen, Richard. 2020. "Radical Honors: Pedagogical Troublemaking as a Model for Institutional Change." *Honors in Practice* 16: 3–11.
- Badenhausen, Richard, and James Buss. 2022. "Can Honors Education Reach More Students?" *Inside Higher Ed.* November 16, 2022. https://www.insidehighered.com/views/2022/11/16/honors-ed-changing-grow-more-accessible-opinion>.
- Bell, Gary. 2008. "The New Model Education." *Journal of the National Collegiate Honors Council* 9, no.1 (Spring/Summer): 47–60.
- Bott-Knutson, Rebecca C., Bailey Larson, Nicole Van Heek, Timothy J. Nichols, and Suzanne Stluka. 2019. "Community Partnerships Help Undergraduate Students to Meet the 'Grand Challenges' of Today." *A Journal of Community-Based Research and Practice* 2, no. 1 (article 13): 1–7.
- Chancey, Jaclyn M., Leigh E. Fine, and Jennifer Lease Butts. 2019. "Leading for Change in Honors Education." In *Leading for Change in Honors Education*, edited by Graeme Harper, 147–62. Cambridge Scholars Publishing.
- Clauss, James J. 2011. "The Benefits of Honors Education for All College Students." *Journal of the National Collegiate Honors Council* 12, no. 2 (Fall/Winter): 95–100.
- Cognard-Black, Andrew J. (2019). "Introduction: The Demonstrable Value of Honors Education." In *The Demonstrable Value of Honors Education: New Research Evidence*, edited by Andrew J. Cognard-Black, Jerry Herron, and Patricia J. Smith, 3–12. Lincoln, NE: National Collegiate Honors Council.

- Ferguson, Paul W., and James S. Ruebel. 2015. "The Catalytic Impact of Honors." *Journal of the National Collegiate Honors Council* 16, no. 2 (Spring/Summer): 11–14.
- Guzy, Annmarie. 2019. "Faculty as Honors Problem Solvers." *Journal of the National Collegiate Honors Council* 20, no. 1 (Spring/Summer):71–75.
- Hannan, Michael T., and John Freeman. 1984. "Structural Inertia and Organizational Change." *American Sociological Review* 49, no. 2: 149–64.
- Heifitz, Ronald, Alexander Grashow, and Marty Linsky. 2009. *Adaptive Leadership: Tools and Tactics for Changing Your Organization and the World.* Cambridge, MA: Harvard University Press.
- June, Andrew Williams. 2022. "Higher Ed's Enrollment Crash Has Been Underway for Years." *The Chronicle of Higher Education*. June 15, 2022. https://www.chronicle.com/article/higher-eds-enrollment-crash-has-been-underway-for-years.
- Kilgo, Cindy A., Jessica K. Ezell Sheets, and Ernest T. Pascarella. 2015. "The Link between High-Impact Practices and Student Learning: Some Longitudinal Evidence." *Higher Education* 69, no. 4: 509–25.
- Kotinek, Jonathan, Rebecca C. Bott-Knutson, Leigh E. Fine, Joy L. Hart, William Ziegler, Paul Knox, Timothy Nichols, et al. 2023. "The Justice Challenge: Honors Endeavors Innovative Pedagogies through the Grand Challenge Scholars Program." *Honors in Practice* 19: 121–24.
- Kotinek, Jonathan D. 2017. "What Is Truth? Teaching the Constructivist Perspective for Diversity in Honors." In *Occupy Honors Education*, edited by Lisa L. Coleman, Jonathan D. Kotinek, and Alan Y. Oda, 281–309. NCHC Monograph Series. Lincoln: National Collegiate Honors Council.
- Kuhn, Thomas S. 1996. *The Structure of Scientific Revolutions*. 3rd ed. Chicago: University of Chicago Press.
- Kutzke, Kayla L., Rosemarie A. Nold, Michael G. Gonda, Alecia M. Hansen, and Rebecca C. Bott-Knutson. 2020. "Student Perception and Affinity: Establishment of an Institutional Framework for the Examination of Underrepresented Programs Such as Agriculture in Honors." *Journal of the National Collegiate Honors Council* 21, no. 2 (Fall/Winter): 95–116.
- Leifer, Richard, and Andre Delbecq. 1978. "Organizational/Environmental Interchange: A Model of Boundary Spanning Activity." *The Academy of Management Review* 3, no. 1: 40–50.

- Miller, Angie L., Samantha M. Silberstein, and Allison BrckaLorenz. 2021. "Teaching Honors Courses: Perceptions of Engagement from the Faculty Perspective." *Journal of Advanced Academics* 32, no. 1: 3–27.
- Mullins, Dail W., Jr. 2005. "What Is Honors?" *Journal of the National Collegiate Honors Council* 6, no. 2 (Fall/Winter): 19–22.
- NCHC Board of Directors. 2013. "Definition of Honors Education." < https://www.nchchonors.org/directors-faculty/definition-of-honors-education>.
- Nepal, Madhav P., Rebecca C. Bott-Knutson, F. Mathew, S. Janaswamy, and P. T. White. 2019. "Mentoring Native American Students for Future Science and Agriculture Workforce through FAST-REEU." Presented at the *Annual Conference of Botanical Society of America*, Tucson, AZ, July.
- —. 2020. "Enhancing College Experience of Native American Students." Presented at the *Annual Conference of Botanical Society of America*, July.
- Nichols, Timothy J., Bailey Larson, Suzanne Stluka, Nicole Van Heek, and Rebecca C. Bott-Knutson. 2019. "Collaborative, Holistic, Honors Approach to Meeting Agriculture's Grand Challenges." *NACTA Journal* 63, no. 2: 282–87.
- Peters, Jesse. 2009. "Implementing Honors Faculty Status: An Adventure in Academic Politics." *Honors in Practice* 5: 33–39.
- Rinn, Anne N. 2006. "Major Forerunners to Honors Education at the Collegiate Level." *Journal of the National Collegiate Honors Council* 7, no. 2 (Fall/Winter): 63–84.
- Shushok, Frank, Jr. 2006. "Student Outcomes and Honors Programs: A Longitudinal Study of 172 Honors Students 2000–2004." *Journal of the National Collegiate Honors Council* 7, no. 2 (Fall/Winter): 85–96.
- Smith, Patricia J. 2020. "The Professionalization of Honors Education." *Journal of the National Collegiate Honors Council* 21, no. 1 (Spring/Summer): 3–18.
- Uhl-Bein, Mary, Russ Marion, and Bill McKelvey. 2007. "Complexity Leadership Theory: Shifting Leadership from the Industrial Age to the Knowledge Era." *The Leadership Quarterly* 18, no. 4: 298–318.
- Weber, Max. 1946. From Max Weber: Essays in Sociology. New York: Oxford University Press.

RADASANU ET AL.

Ziegler, William, Heidi Appel, Rebecca Bott, Andrea Radasanu, Joy Hart, Paul Knox, Ralph Keen, Jonathan D. Kotinek, and Mark Andersen. 2023. "Honors Education: A Natural Laboratory for Interdisciplinary Exploration of the Arts, Humanities, Social Sciences, and Education." In Proceedings of the Hawaii University International Conference on Arts, Humanities, Social Sciences and Education. Honolulu, HI.

Ziegler, William, Andrea Radasanu, Heidi Appel, and Ralph Keen. 2022. "Capstone on Top of Capstone: The Honors Dilemma." In *Proceedings of the 2022 Capstone Design Conference*. Honolulu, HI.

Zubizarreta, John. 2022. "Honors Is Pedagogy." *Journal of the National Collegiate Honors Council* 23, no. 2 (Fall/Winter): 33–38.

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