

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Journal of the National Collegiate Honors
Council –Online Archive

National Collegiate Honors Council

Fall 2021

Human-Centered Design as a Basis for a Transformative Curriculum

Bhibha M. Das

Tim Christensen

Elizabeth Hodge

Teal Darkenwald

W. Wayne Godwin

See next page for additional authors

Follow this and additional works at: <https://digitalcommons.unl.edu/nchcjournal>



Part of the [Curriculum and Instruction Commons](#), [Educational Methods Commons](#), [Higher Education Commons](#), [Higher Education Administration Commons](#), and the [Liberal Studies Commons](#)

This Article is brought to you for free and open access by the National Collegiate Honors Council at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Journal of the National Collegiate Honors Council –Online Archive by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

Authors

Bhibha M. Das, Tim Christensen, Elizabeth Hodge, Teal Darkenwald, W. Wayne Godwin, and Gerald Weckesser

Human-Centered Design as a Basis for a Transformative Curriculum

BHIBHA M. DAS, TIM CHRISTENSEN, ELIZABETH HODGE,
TEAL DARKENWALD, W. WAYNE GODWIN, AND
GERALD WECKESSER

East Carolina University

Abstract: This pilot study describes a nascent first-year honors colloquia series using human-centered design (HCD). An interdisciplinary team of instructors redesigned the course with the intention of engaging the whole student in transformative learning and creating a curriculum that addresses problems and opportunities focused on the needs, contexts, emotions, and behaviors of all students, faculty, administrators, and community involved in the series. Authors describe the HCD process, observing the challenges faced by faculty in realizing its design principles, and student ($n = 98$) reflections on a two-part prototype involving innovation and entrepreneurship emphasizing “wicked” problems and resolutions. Students were asked to reflect on their honors college experience, in general, and then specifically focus on the course, assignments, events, and activities in which they engaged throughout the program. Authors consider the benefits of research through the immersion and observation of participants, arguing that such continuing research engagement (thought and action) informs iterations of the curriculum that are then evaluated in a continuing cycle of HCD. Qualitative analyses indicate that students’ lived experience align with curricular objectives and design. Authors conclude that HCD offers promising and innovative strategies that honors practitioners can use to engage students and manage potential pitfalls and pivots in honors curricula and programs after COVID.

Keywords: COVID-19 pandemic—teaching & learning; whole student pedagogy, curriculum planning; interdisciplinarity; East Carolina University (NC)–Honors College

Citation: *Journal of the National Collegiate Honors Council*, 2021, 22(2):71–86

INTRODUCTION

Honors colleges are fertile ground for the development of innovative curricula, as demonstrated by potent examples in the honors literature (Digby, 2010; Donovan, 2001; Garrison & Parish, 2020; Collins & Niva, 2020). In his article “Risky Honors,” Andrew J. Cognard-Black (2019) articulates the motivating aspiration for many faculty in honors colleges:

We all look for and try out strategies to free our students to take intellectual risks—and to become independent, critical thinkers who might one day be celebrated for solving the problems that today seem unsolvable. (p. 8)

Encapsulated in this statement is the idea that as educators we can help students develop the skills and strategies for solving difficult problems while at the same time providing a transformational learning experience that equips them to examine critically the world around them. With this goal in mind, the honors college at East Carolina University reworked the first-year experience with an interdisciplinary faculty committed to continued evaluation of the curriculum and its impact on students and stakeholders.

The original first-year course consisted of a two-credit service and leadership component that included lectures, discussions, and readings on service and leadership as well as a service project with a community partner. This course was followed by a second-year three-credit course that introduced students to discipline-specific research by breaking the class into cohorts by major and assigning predetermined research projects. These courses were taught by individual faculty within the respective disciplines. At the end of the original first-year course, there was no option for a teams-based Signature Honors Project, so students did not have the opportunity to move their individual projects forward as a team.

In reimagining the curriculum, the initial interdisciplinary team of faculty included members from biology, foreign languages and literature, business, fine art, and design. Since this first team was constituted, some faculty have rotated off, and new members have been added from dance, education, public health, and kinesiology. The new faculty team used and continues to use human-centered design (HCD), which—although not the only methodology used to create and update the course—serves as the core of the first-year curriculum consisting of a two-credit course in the fall and a three-credit course in the spring. Students now have the option to do a team-based Signature Honors Project using their first-year project as the foundation. The new

process involves students and teams self-selecting to complete a team-based Signature Honors Project and providing a project pitch. Teams are then vetted by faculty members and either given the approval to move forward or not. A Senior Faculty Fellow within the honors course serves as the lead facilitator for all team-based Signature Honors Projects. Despite many excellent short-term projects, however, the long-term sustainability of projects remains a critical challenge and is a research and evaluation focus for the faculty team moving forward.

HCD can take many forms, but at its center are four principles (IDEO.org, 2015). First, understand and address the core problem. During this process, the goal is to identify underlying issues rather than symptoms. Second, maintain a people-centered holistic approach, considering the history, culture, beliefs, and community environment throughout the process. Possible solutions to problems come out of deep engagement with these issues and stakeholders and/or beneficiaries. Third, use a systems-based approach, understanding that a problem exists in a complex network of feedback loops. Fourth, iterate and test rapidly with a bias toward action that involves rapid prototyping. Failure becomes the best teacher during this phase, which then informs a repeat of the HCD cycle. Prototypes are not meant to be solutions; rather, they are meant to inform future iterations that will approach an eventual solution.

Using HCD, the founding faculty identified important issues among our students, which included a poorly developed sense of community; tunnel vision associated with their choice of major; late/little development of “soft skills”; lack of meaningful engagement with the community and university; and fear of failure. While many pre-existing problems underlie these symptoms in our students, the curriculum was the one underlying issue that could be changed. The goal of this curricular change was to create a transformative learning experience that might impact these issues for our students.

The first-year sequence now involves three major phases over two semesters: design thinking related to students lives; HCD centered on addressing “wicked” problems; and continued HCD with the addition of Lean Launch Pad (Blank, 2010) using entrepreneurial tools. In phase one, students read *Designing Your Life* over the summer and complete all the activities in the book (Burnett & Evans, 2016), which introduces them to the use of design thinking relevant to their career path and gives them permission to think of alternate paths forward. Early in the fall semester, students are organized into teams, and they share their possible career paths with their new cohort. In

the second phase, the teams identify “wicked” problems, i.e., issues that are difficult to solve and usually involve a social or cultural component (Rittel & Webber, 1973). The teams then use HCD to understand and grapple with these problems, which have included sexual assault on campus, stigma associated with mental health, use of tobacco products on campus, lack of student political engagement, environmental sustainability, community accessibility to fresh fruits and vegetables, and racism. In phase three, students become familiar with Lean Launch Pad (Blank, 2010) and work toward prototyping possible solutions that might impact their identified “wicked” problems. Some teams then choose to work on these projects for another year as part of their Signature Honors Project. Additional details of this new course series are discussed at length elsewhere (Chaney, Christensen, et al., 2020).

Critical reflections by the honors college students as stakeholders are important for understanding the success and failures of the curricular prototype. Here we present our findings based on critical reflections of our students. Our findings suggest that the curricular revision is creating real, meaningful impact on some of the issues identified by the faculty during the HCD process and that a model for transformative education is emerging from our efforts.

METHOD

Over the course of the academic year, first-year honors college students took part in a two-part colloquium centered on innovation and entrepreneurship with an emphasis on solving “wicked” problems through human-centered design. Students were asked to reflect on their honors college experience and specifically to focus on the course, assignments, events, and activities in which they engaged throughout the program.

Honors college students ($n = 98$) signed informed consent documents and allowed their reflection pieces to be used as the primary data source for the study. All students (25.1% male; 74.5% female) were first-year students, with an average age of 18 ± 0.53 years. Students were 78.57% Caucasian, 8.16% Asian, 4.08% African American, 4.08% Latinx, and 5.10% other.

Data were de-identified by the faculty supervisor prior to being distributed to the other members of the research team and to three honors college undergraduate students. The faculty supervisor trained the three undergraduate students in the coding process to identify all major themes and findings (Braun & Clarke, 2006). The research team was instructed to read through all reflection pieces individually, to familiarize themselves with the data, and

then to generate initial codes to find themes. As a group, the research team identified, reviewed, defined, and named over thirty themes. Coders discussed discrepancies among themselves. Once a consensus was reached, a final list of themes was generated of which seven were judged to be dominant. All methods and procedures were approved by the university's Institutional Review Board.

RESULTS

Student responses varied, but the overall observation was that the year-long colloquium affected students both intra- and inter-personally. The overall observation was that, although these classes were difficult at times and nothing like the students had experienced before, the relationships and growth that came from the courses were irreplaceable. After analysis of the 98 reflection pieces, seven overarching themes emerged:

1. redefining failure,
2. personal growth,
3. course pedagogy,
4. sense of community,
5. rising to challenges,
6. refocusing the future, and
7. shifts in perspectives and attitudes.

Within each theme, students discussed how these courses transformed their college experiences and beyond.

Redefining Failure

In this colloquium, a newfound definition of failure was birthed as a positive tool for growth and served as a guidepost for the course sequence. A common point that many of the students stated was that failure served a major role in the success and growth of ongoing and future experiences. One student declared, "Failure is a necessary experience. If we don't fail, then we can't truly measure success." Another said, "Failure is not something to be afraid of, it is something that everybody can learn and grow from." The comments expanded on the concept that failure is inevitable and serves as a learning experience for future success.

The honors college is made up of students who have typically never experienced a major failure during their scholastic career; and the colloquium makes experiencing failure inevitable. This failure occurs in a safe place, where it is used for growth and learning rather than as an opportunity to shut down. One of the common points students made is that their definition of failure had been revolutionized and was now a positive part of the design and planning process. A student reflected, “What this course did allow me to see is that failure is not always a bad thing. Failure can and usually will put you in a difficult situation, but it is when people work through those difficult situations that they learn the most.” Though most students came in fearing failure, by the end they thrived and grew through their failures; this does not mean that failures are now easy and painless for these students, but they are a starting point for growth rather than an ending.

Personal Growth

The overarching theme of personal growth focused on skill development in, for instance, teamwork dynamics and presentation; it was defined as the improvement and growth of soft skills such as networking and communication as well as the development of collaborative skills. The students indicated that the most important skill development was public speaking. One student remarked, “My critical thinking skills were greatly grown. . . . My oral communication was vastly improved from speaking in front of the class.” Students also described how their perceptions of teamwork changed and stated that collaboration with their groupmates made the assignments easier. One student noted, “I found teamwork is not just group work where a group of students is placed together to complete an assignment. Teamwork is working together towards a common goal.” These remarks demonstrate the role the colloquium had in developing students’ personal growth in terms of skill development.

Course Pedagogy

The theme of course pedagogy explored the impact of the course materials and the professors on the students’ development and perceptions of the course. A critical component of the course material was the *Designing Your Life* text, which got mixed reviews from the students. Some students felt that the book and its corresponding activities had beneficial takeaways, with one student writing, “One of my biggest takeaways from *Designing Your Life* was

to not make big decisions alone and the importance of consulting knowledgeable people.” Other students, however, did not feel the book was applicable to their current life situation, with one noting that book was “written more for a midlife crisis audience.” Others felt the corresponding activities were busywork with too much class time spent on the book’s topics. Students also discussed the support from professors, with one stating, “The professors pushed us each individually to become better at developing ideas that could change the world around us.” Another remarked, “I had never had a teacher push me the way that I did in this class. In the end I think it really shows that our professors cared about us and our growth, not just or [sic] G.P.A. or getting through the class.” Students noted that, as the course progressed, the support and honest feedback from the faculty team by itself helped shift their attitudes toward the course from being anxious, frustrated, and stressed to becoming more comfortable with the course and its unconventional strategies. One student noted, “I am grateful to Honors for helping me become a prepared presenter.” Overall, students noted that the course pedagogy was designed to provide life lessons by their broadening their thinking to look at the big picture, being inspired to change their career path, learning how to take control of their life, and understanding the importance of not having everything figured out.

Sense of Community

“Sense of community” referred to the connections and friendships students built within the honors college on the basis of their shared experience in the year-long colloquium. Students reported that the colloquium brought them closer together and helped foster a sense of community unlike any they had experienced. One student reported, “This class affected my sense of the Honors College as a community by helping me realize that I am not alone.” Another student also affirmed, “These classes helped me to feel like a part of a community in the Honors College . . . going through collective trauma it felt like a community.” Both these comments demonstrate the bond the students built with fellow honors classmates through the shared experience of the honors classes.

Rising to Challenges

The theme of rising to challenges incorporated pivots within the group projects, conflicts within groups, and personal challenges. The main challenge

students faced was feeling that they were going into these courses blind, with no understanding of what was to come. A student explained, “I had absolutely no idea what to expect. This class challenged me like no other—we were forced to think outside the box, under the box, around the box, yet rarely inside the box.” The ambiguity that students struggled with before the course continued as time went on. There was no right or wrong in the class since it was largely based on real-life experience. One student stated, “Some major challenges I faced was [sic] accepting that sometimes your ways are not the best way to solve something.” Because this colloquium went deeper than most college coursework, many students began to question their future in often unexpected ways. One student explained, “I have always been a person that values progress and strives to achieve my goals, and when I figured out that I no longer knew what I wanted my life to look like, it led me to a great amount of internal strife.” Another stated, “A major challenge was finding my passion and how to fit that into a ‘wicked’ problem.” These challenges were processed and worked through with professors and classmates, ultimately altering the trajectory of many students’ lives.

Refocusing the Future

“Refocusing the future” involved the impact of the course on students’ choices and trajectories. Students reported either changing their major or adding a minor due to the course, with one remarking, “This course caused me to reconsider my major several times. . . . I changed my major to bioprocess engineering after becoming very interested in my research.” Many reported that their career choices were influenced as well. One student said, “I became more confident in my choice as it made me think much deeper about my future and re-establish why I wanted to be a physical therapist.”

Shifts in Perspectives and Attitudes

Finally, the theme of shifts in perspectives and attitudes included changes in students’ views of themselves, of others, and of life. A significant number shifted their mindset during the course because of the combined group work, faculty interactions, course materials, and project development. Students discussed the realizations they gleaned from the course about life lessons, saying that they approached situations differently based on the lessons they learned. One student reported, “I realized nothing is freely given, everything must be questioned.” Students also changed their perspective on other

people. For example, a student exclaimed, “This course helped me realize that there are others out there who are completely different from me.” Both these comments emphasize the development of a new and open mindset among students. Another common theme in the responses was perspective shift, whether on life, career path, or the class. One of the respondents described initially thinking of life as a step-by-step path to a destination but learned that the destination is not what really matters. Another shift occurred in participants’ mindset on obstacles: complementing the perspective shift on failure, obstacles were now described as “learning opportunities.” Students now saw setbacks and stumbles as growth opportunities, not necessarily as failures. The attitude of students also shifted from negative to positive toward components of the class like presentations, direct feedback, and teamwork. Initially, students who had described the course negatively, with words like “annoying” and “difficult,” began to use words like “grateful,” “confident,” and “effective.”

DISCUSSION

Transformative Learning

The themes that emerged from the students’ reflections suggest that the course was a transformative learning experience. Transformative learning theory posits that students who are learning new ways of thinking are also evaluating their past ideas and shifting their worldview through critical reflection. This type of learning calls for students to fundamentally change their perceptions by questioning previous knowledge and making room for new information and insights (Mezirow, 1997). Transformative learning outcomes encompass three domains (Taylor & Cranton, 2012; Knapp, Camarena, & Moore, 2017) that overlap with HCD and the other aspects of the colloquium. First, students come to understand that humans build meaning based on perceptions and experiences that may not represent universal truths. HCD forces students to get past their own ideas and to spend time with real people in real environments to understand differing points of view. This first outcome can be found in the theme “shifts in perspectives and attitudes,” which requires students to conduct extensive interviews with stakeholders about their identified “wicked” problems and to have their work and conclusions challenged weekly by their peers and faculty. Students are encouraged to interview people they think will disagree with their interpretation of a “wicked” problem or their prototyped solution. Assimilating multiple points

of view and understanding that their own point of view is one among many others helps students realize this first outcome of transformative learning.

The second outcome of transformative learning is students' realization that they can make their own decisions and understand their own potential for growth and change. This outcome most easily fits with the themes of personal growth, redefining failure, shifts in perspectives and attitudes, and refocusing the future, which all speak to the students' growing autonomy in making decisions. Students explore their paths forward using design principles free of previous influences and thinking outside the norms they have known when, for instance, they are tackling "wicked" problems outside their pre-determined career path.

The third transformative outcome is that students are able to question the basis of prevailing ideologies and be more critical of society, and they may find a calling to address societal problems. Even though this outcome did not appear as a discreet theme in the student reflections, it aligns with HCD to the extent that students question society critically by tackling a "wicked" problem and by deeply questioning why it exists and how they can facilitate change. That many student teams seek to continue to work on their colloquium project as their Signature Honors Project suggests that they are embracing the calling to create positive change. More investigation into this third transformative outcome is warranted and will inform future versions of the colloquium and additional research.

Initial Goals

In addition to addressing questions about the transformative nature of the curriculum, we needed to understand whether the original goals of the faculty were being achieved. The faculty wanted to have a positive impact by helping students to develop a better sense of community; to understand themselves in order to align better with their choice of majors; to develop "soft skills"; to increase their engagement with the community and university; and to redefine their relationship with failure. The themes that emerged in the reflections suggest that this positive impact was achieved in nearly all cases. Students reported a better sense of community resulting from spending the entire first year together, sharing their dreams for their futures, working in teams, and working together through the challenges of the colloquium. In delving into design thinking about themselves and immersing themselves in understanding "wicked" problems, they appeared to grapple in a meaningful way with their choice of majors. Their exposure to different ways of knowing

and their sense of community gave them the courage to explore outside the paths they had decided on prior to college. Students also reported that they were developing courage and confidence with respect to soft skills. Presentations, interviewing, receiving critical feedback, assimilating ambiguity, and dealing with setbacks were all constant parts of their experience during the colloquium. Getting through these uncomfortable moments resulted in many students reflecting on their newfound skills. While at first students were typically mortified at the prospect of calling a stranger to conduct an interview, by the end of the course they felt empowered and comfortable with talking to strangers. In the same way, students who started off terrified of speaking to large audiences eventually became volunteers for their team presentations.

Absent as a discreet major theme emerging from student reflections is increased engagement with the community and university; its absence may have emerged simply because it is a central feature of HCD and therefore transparent to students who are performing critical self-reflections of their own transformations. The various themes demonstrate that students are engaging with their peers, the university, and the community and that these interactions are having an impact on their views of themselves and the world they inhabit. However, since community engagement is an explicit goal for the university, more work should be done to understand and document the role of the colloquium in this area.

Fear of failure is a constant among many of our students, arising from a need to protect their self-esteem (for extensive information see Martin, 2010). Students living in fear of failure often develop coping strategies that are self-defeating. For honors students, these strategies often center on perfectionism such that they invest tremendous amounts of effort in the task at hand at the risk of their mental health. These students' self-esteem is higher when they demonstrate cleverness and competence, traits that are necessarily questioned by the process of HCD and the critical feedback from peers and faculty. Perfectionism and "overstriding" (Martin, 2010) in this colloquium do not counteract a sense of failure, creating a dilemma for some of our students, who may fall into counterproductive fear-based strategies: self-handicapping puts obstacles in their paths as they create excuses for poor performance; defensive pessimism induces students to set low expectations for themselves before an evaluation; and defensive optimism occurs when students set expectations for themselves that are so high as to be unattainable, providing an excuse for failure. Two other coping mechanisms are less common among honors students: learned helplessness and success avoidance.

Understanding these different strategies and how they play out in a course is important for the faculty to keep in mind. The goal of the faculty is to encourage students to transition from fear-based to success-focused motivation, making for a much happier life (Martin, 2010). Fortunately, the student reflections reveal that many are now seeing failure as a growth opportunity rather than a threat to their self-worth.

Challenges

The colloquium is not easy for the faculty. To create a transformational learning environment, we must invite the whole student into the class and be authentic while we engage (Davenport, 2019). Actually “seeing” students as people and sharing our vulnerability with them are critical for success but are also draining and frightening. Faculty are actively engaged in the HCD process while teaching the class, which means weekly long-format meetings to discuss how the course is going and what changes need to be made on the fly. Summer work is then necessary to assemble and analyze data that will inform large-scale changes for the new academic year. Moreover, faculty coming from different departments must defend the need for such efforts. These challenges are not unique to HCD, but it makes them more inevitable for the participants.

Additional challenges arise from the pushback that we as faculty get when we challenge students and push them to do hard things that are outside their comfort zone. One of the major themes to emerge from the reflections was some dissention about the assigned book *Designing Your Life*. The faculty are always in the ideation and prototyping process. Some students conclude that because we change what we do, we therefore do not know what we are doing, an attitude exacerbated by the fact that we ask students to reflect critically on the class. Some students resist the idea that we are intentional and committed to transformative learning and believe that they know best, illustrating the saying “All the important things I learned in life I learned after I knew everything.” These few students often seek to sabotage the delicate culture of the class, so faculty must be aware of and counter these threats to the culture of safety and growth.

Strengths, Limitations, and Future Directions

This qualitative pilot study examining the role of an HCD-focused curriculum’s impact on first-year honors college students has significant strengths

and limitations that provide opportunities for future research. Previously, we performed research on our students' experiences with validated survey instruments and discovered positive impacts in several areas (Chaney, Christensen, et al, 2021). However, many of the surveys administered revealed no significant changes (our unpublished data), highlighting the drawback of this approach. Faculty were merely guessing about how students were responding to the curriculum. We needed to collect qualitative data to inform future quantitative research; thus, this work represents the first of an ongoing yearly collection of qualitative data that will be supplemented with other validated scales and multi-year studies that chart longer-term impacts of the colloquium. Also, the reflections we used were from students who were motivated to share their perspectives about the course; therefore, students with negative perceptions of the course, from which the data were pulled for this study, may not have opted to enroll in the study, potentially providing a biased sample. The generalizability is limited because of the disproportionate number of Caucasian and female students in the colloquium; future studies should examine a larger, more diverse population. Also, more varied data collection methods should be used to obtain more robust findings of students' lived experiences and perspectives. Using focus groups and interviews may further support and add to the study's findings by promoting a more holistic and personal understanding of what students experienced and gained from this innovative curriculum. Finally, a longitudinal, mixed-methods study may be a worthwhile next step for this research for several reasons: anecdotal evidence suggests that many of the challenges that students experience in this first year do not have real impact on them until later in their college career or even after their graduation; it is unknown how well students accept this innovative curriculum and the role it plays in preparing students for a variety of professional and academic pursuits; and it is also unknown how gender and racial characteristics influence students' perceptions of this curriculum.

Finally, the pandemic played a role in adjusting the curriculum, both temporarily and more permanently. The initial year of the reimagined course sequence involved discussion-based classes led by a faculty member during the fall term while the spring term consisted of a large lecture-style class led by the entire faculty team. All course components were offered in-person until March of 2020 when the course became hybrid due to COVID-19. The second year was all virtual given the university's COVID restrictions. Students were assigned to a discussion-based class led by a faculty member but virtually alternated between instructors for both fall and spring semesters.

This academic year (2021–2022), the faculty team has learned from best practices, and the fall term consists of an in-person, discussion-based class led by one faculty member for some weeks while in other weeks sections alternate between instructors. The shifts in teaching modality because of COVID have led to faculty members and students having better course organization, communication, and expectations of each other. Additionally, the online learning management system helped facilitate some of these changes. A future research question will explore the impact of curriculum adjustment during the pandemic on student success.

CONCLUSION

This pilot exploratory study qualitatively examines the use of HCD as the foundation for a transformative curriculum for first-year honors students. The most notable finding from this exploratory paper is that an HCD-based curriculum allows honors students to develop holistically as students and professionals by focusing on growth, developing a sense of community, and redefining failure, among other lessons. After engaging in the yearlong curriculum, students felt the curriculum transformed their college experience and provided a new outlook for them. Implications from the current research reveal the importance of examining promising and innovative strategies that honors colleges can use post-pandemically to engage students and manage potential pitfalls and pivots in the curriculum and program through HCD.

REFERENCES

- Blank, S. (2010). LeanLaunchPad. Retrieved on August 3, 2021 from <<https://steveblank.com/category/lean-launchpad>>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <<https://doi.org/10.1191/1478088706qp063oa>>
- Burnett, B., & Evans, D. (2016). *Designing your life: How to build a well-lived, joyful life*. New York, NY: Knopf.
- Chaney, B. H., Christensen, T. W., Crawford, A., Ford, K., Fraley, T., Godwin, W. W., & Weckesser, G. (2021). Building entrepreneurial self-efficacy through honors education. *Journal of Entrepreneurship Education*, 24(3), 83.

- Chaney, B. H., Christensen, T. W., Crawford, A., Ford, K., Godwin, W. W., Weckesser, G., Fraley, T., & Little, P. (2020). Best practices in honors pedagogy: Teaching innovation and community engagement through design thinking. *Honors in Practice*, (16), 71–92.
- Cognard-Black, A. J. (2019). Risky honors. *Journal of the National Collegiate Honors Council*, 20(2), 3–8.
- Collins, L., & Niva, M. (2020). Infusing critically reflexive service learning into honors. *Journal of the National Collegiate Honors Council*, 21(2), 31–37.
- Davenport, B. (2019). An honors student walks into a classroom: Inviting the whole student into our classes. *Journal of the National Collegiate Honors Council*, 20(2), 9–14.
- Digby, J. (2010). Partners in the Parks. In B. Braid & A. Long (Eds.), *Place as Text: Approaches to Active Learning* (2nd ed., pp. 60–64). Lincoln, NE: National Collegiate Honors Council. NCHC Monograph Series.
- Donovan, L. A. (2001). Jesters freed from their jack-in-the-boxes: Or springing creativity loose from traditionally entrenched honors students. *Journal of the National Collegiate Honors Council*, 2(2), 93–103.
- Garrison, S., & Parish, C. (2020). The campus improvement project: A high-impact practice to stimulate honors community and empower student leadership on campus. *Honors in Practice*, 16, 234–36.
- IDEO.org, (2015). *The field guide to human-centered design*. San Francisco, CA: IDEO. Retrieved on August 3, 2021 from <<https://www.ideo.org>>
- Knapp, K., Camarena, P., and Moore, H. (2017). Transformative learning: Lessons from first-semester honors narratives. *Journal of the National Collegiate Honors Council*, 18(2), 121–49.
- Martin, A. (2010). *Building classroom success: Eliminating academic fear and failure*. New York, NY: Continuum International Publishing Group.
- Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult & Continuing Education*, 74, 5–12.
- Rittel, H. W., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences*, 4(2), 155–69. <<https://www.cc.gatech.edu/fac/ellendo/rittel/rittel-dilemma.pdf>>

Taylor, E. W., & Cranton, P. (2012). Transformative learning theory: Seeking a more unified theory. In *The handbook of transformative learning: Theory, research, and practice* (pp. 1–20). San Francisco, CA: Jossey-Bass.

The authors may be contacted at

dasb@ecu.edu.