Writing Across the Disciplines

Proposed by Dr. Lorie Stagg Jacobs, Assistant Professor of Writing

Executive Summary

This proposed QEP topic aims to support and encourage student development as professional writers via the implementation of the AAC&U high-impact practice, writing-intensive courses. An essential element of this proposal is preparing instructors across the curriculum to teach process-centered, meaning-making writing assignments and to use writing as a tool for learning course content. Research demonstrates that writing is not an instrumental skill that is learned once and then stays with the student for a lifetime, like tying a shoe (Hansen, et. al., 2013). Meaningful writing instruction involves a combination of WAC/WID practices, where students use writing in low-stakes situations as they work to learn new material (WAC), and in high-stakes situations where they are taught and then evaluated on disciplinary writing conventions (WID). Thus, not only will students gain more knowledge about and practice with discipline-specific writing and communication, but with writing as a vehicle for thinking and learning more deeply, learning of all course content is enhanced as well.

Program Goals

- 1. Create a culture that supports and encourages student development as professional writers.
- 2. Equip UHCL faculty with the tools and knowledge needed to infuse their courses with formative and meaningful writing, via writing pedagogy seminars and workshops.
- 3. Generate discipline-specific guidelines for undergraduate writing, including rhetorical principles, essential genres, and value for future employment.
- 4. Add new and/or revise existing courses to meet writing-intensive requirements.
- 5. Revise all degree programs to require a minimum of two upper-division writing intensive courses. (The existing junior-level writing requirement will remain in place.)
- 6. Develop and expand new specialized courses under the WRIT rubric to provide student choice and enhance current program offerings campus wide.

Building on existing First-Year Writing courses (WRIT 1301 and 1302) and the junior-level writing requirement (WRIT 3304, 3304, 3306, 3307, 3312, and 3315), the proposed QEP topic will:

- Institute a robust **faculty development program** modeled on the Center for Faculty Development's Writing-Focused Faculty Badge. Members of the first cohort, along with Writing Program faculty will make up the first Writing Across the Disciplines Committee that will review submitted courses.
- Define and describe **Criteria for Writing-Intensive Courses**. New or revised courses should meet the agreed-upon criteria, as determined by submitting syllabi to the Writing Across the Disciplines committee.
- Generate a Student Awareness Campaign that begins with the first day on campus.

A detailed assessment plan will ensure all goals and student learning and measures of student success progress as expected throughout the program.

Topic and Rationale

In recent conversations regarding the future of the University of Houston-Clear Lake, two themes that have echoed are student retention and preparing students for a successful future. Writing Across the Curriculum (WAC) and Writing in the Disciplines (WID) are two widespread movements in composition pedagogy that work in concert to support student learning and engagement, student persistence, and simultaneously prepare students for a successful future. Currently, 52% of American colleges and universities have a WAC or WID program in place (Gladstein and Fralix, 2017). In addition, employers routinely demand strong writing and communication skills (AAC&U, 2015; Droz & Jacobs, 2019; National Commission on Writing, 2004; Ruff and Carter, 2015). According to the 2020 NSSE survey of UHCL students, participants report being assigned fewer written pages than our Carnegie counterparts, an average of 6.5 pages at UHCL in comparison to an average of 7.8 for other institutions.

Currently, all degree programs require students to satisfy the requirements for the firstyear writing series (WRIT 1301 and WRIT 1302) and to complete a junior-level writing requirement (WRIT 3304, 3305, 3306, 3307, 3312, or 3315). The Writing Program has worked hard to develop discipline-specific courses that are applicable to all degree programs and that expose students to the specific writing expectations of their majors. These courses are inherently valuable for students. But research demonstrates that writing is not an instrumental skill that is learned once and then stays with the student for a lifetime, like tying a shoe (Hansen, et. al., 2013). Writing is a complex and varied set of strategies that must be negotiated and applied in wildly different settings and for different purposes throughout a lifetime. Several studies have demonstrated that we continue learning to write with every new writing task we encounter and that the skills learned in a handful of college courses are not enough (Adler-Kassner, et. al., 2016; Droz and Jacobs, 2019; Frazier, 2018; Hendricks, 2018; Jacobs, Pennington, and Wood, forthcoming). Thus, to truly prepare UHCL students for the demands of written communication they will encounter over a lifetime, we should expose them to varied writing tasks and discipline-specific writing instruction throughout their academic tenure. This proposed QEP topic would work to foster a culture that supports and encourages student development as professional writers by preparing instructors across the curriculum to teach process-centered, meaning-making writing assignments and to use writing as a tool for learning course content.

Job Market Need

In 2015, the AAC&U released data from an extensive survey of employers' expectations for new graduates. Respondents were asked to rate learning outcomes on a 1 to 10 scale, with 10 indicating the outcome was most important. Written communication was rated in the top three desired learning outcomes for college graduates. Specifically, eighty-two percent of respondents rated "the ability to communicate effectively in writing" as very important. In addition, communicating orally (closely linked to written communication) was rated as very important by 85% of respondents. "Written and oral communication skills, teamwork skills, ethical decisionmaking, critical thinking skills, and the ability to apply knowledge in real-world settings are the most highly valued among the 17 skills and knowledge areas tested" (AAC&U, 2015, p. 4). And they also pointed to a disconnect between students' perceived skill level and employers' expectations of preparedness. While 65% of graduating students felt they were adequately prepared in written communication, only 27% of employers agreed (AAC&U, 2015). This indicates that students are for the most part, unaware of the intense value of written communication skills in the workplace or what exactly will be expected of them.

Drs. Droz and Jacobs (2019) were able to describe employer desired skills in their study entitled "Genre Chameleon: Email, Professional Writing Curriculum, and Workplace Writing Expectations." The study of Houston-area human resources executives' perceptions of the value of writing in the workplace revealed that more than 75% of salaried employees in local companies have direct responsibility to produce formal workplace writing, as defined as technical reports, memos, annual reports, and external communications (Droz and Jacobs, 2019). One major finding of this study is that students must be prepared to adapt to the individual workplace writing culture when they enter the job market and each time they transition (Droz and Jacobs, 2019). Thus, it is inherent that we provide students multiple opportunities to practice discipline-specific writing and to adapt to the specified criteria of multiple environments (read: multiple courses that emphasize writing in different ways) in order to prepare them for the rhetorical adaptation that will be required when they enter the job market.

In a subsequent study (Jacobs, Pennington, and Wood, forthcoming), in which researchers interviewed professionals in UHCL's top four majors, many participants stated they would prefer colleges to spend more time on written communication over technical skill, because professionals in today's workplace feel more confident in their ability to re-teach a technical skill than they do writing. Writing is something employers expect a college graduate to do already. In other words, focused writing courses under the WRIT rubric are essential and, in addition, students need additional writing-focused courses within their majors as well, thereby providing practice and exposure to discipline-specific conventions and multiple instructor-mentors.

Student Learning

If Writing and Professional Communication is selected as the next QEP topic, student learning will be enhanced in numerous ways. Leading retention researchers (Alarcon & Edwards, 2013; Engle & Tinto, 2008; Engstrom & Tinto, 2008; Tinto, 2006) point to faculty involvement and quality of instruction as the most important areas to support student persistence. In addition, the Association of American Colleges and Universities (Kuh, 2008) has named ten High-Impact Practices (HIPs) to improve quality instruction and student learning. There are ten HIPs, but one of them has a ripple-effect throughout several of the other practices and is prime for development here on our campus: Writing-Intensive Courses. These are courses that "emphasize writing at all levels of instruction and across the curriculum, including final-year projects" (Kuh, 2008). Kuh explains that students need to practice writing for multiple purposes, for different audiences, and in different disciplines. Thus, the real benefit happens when writing is not only taught in the first year and as a stand-alone course, but *also*, when writing is purposefully integrated into major courses throughout a degree program. "The effectiveness of this repeated practice 'across the curriculum' has led to parallel efforts in such areas as quantitative reasoning, oral communication, information literacy, and, on some campuses, ethical inquiry" (Kuh, 2008, p. 10). Further, writing intensive courses, if well-implemented, support several other HIPs, including collaborative assignments and projects, undergraduate research, service-learning, and capstone projects (see https://www.aacu.org/leap/hips). Additionally, HIPs benefit all types of students, but "historically underserved students tend to benefit more from engaging in educationally purposeful activities than majority students" (Kuh, 2008, p. 17). Kuh specifically names Hispanic students and students first in their families to attend college, two populations that are of special interest at UHCL.

Writing Across the Curriculum (WAC) and Writing in the Disciplines (WID) work in concert to support student learning and engagement. Both recognize that writing varies tremendously from one discipline to another and that writing cannot be adequately taught in one course or in a handful of dedicated writing courses. Instead, combining WAC and WID together empowers instructors to engage students in multiple ways of knowing and multiple ways of understanding content, echoing the AAC&U description of writing as a high-impact practice. In addition, writing is a cognitive activity, instrumental to learning itself, a means to think through material and deepen understanding of concepts (Adler-Kassner and Wardle, 2015; Council of Writing Program Administrators, 2011; Eodice, et. al., 2017). WAC describes "writing to learn" pedagogical tools such as one-minute papers, reflection, and freewriting. WID, on the other hand, employs the rhetorical modes of each discipline and the genres and conventions encountered in the disciplines. Both are integral to student engagement and learning. Meaningful writing instruction involves a combination of WAC/WID practices, where students use writing in low-stakes situations as they work to learn new material, and in high-stakes situations where they are taught and then evaluated on disciplinary writing conventions. Thus, not only will student's gain more knowledge about and practice with discipline-specific writing and communication, but with writing as a vehicle for thinking and learning more deeply, learning of all course content is enhanced as well.

Aiming to clearly define writing as a high-impact practice, in 2008 the Council of Writing Program Administrators teamed up with the National Survey of Student Engagement and added several questions to the NSSE survey instrument, aimed at teasing out what kind of writing enhances learning. Researchers found three key factors at work:

- <u>"Interactive Writing Processes</u>, in which students communicate orally or in writing with others about an assignment at some point between receiving it and submitting the final draft.
- <u>Meaning-Making Writing Tasks</u>, which require students to engage in some form of integrative, critical, or original thinking.

• <u>Clear Writing Expectations</u>, which involve instructors communicating accurately what they want their students to do in an assignment and the criteria they will use to evaluate the students' submissions" (Anderson, et. al., 2017).

It is important to recognize that all three of these describe instructor behavior, underscoring the need for effective faculty development when undertaking a writing across the disciplines initiative. A further relevant observation from this study is that assignment quality is much more important than assignment quantity, again emphasizing the need for faculty development emphasizing these three constructs and educating instructors on a wide variety of strategies to meet these constructs.

Increasing Faculty Involvement

According to the UHCL Fall 2019 survey of graduating seniors, one area for improvement is in faculty feedback on academic work. While respondents indicated they were generally satisfied, 52% agree and 38% strongly agree that faculty provide frequent and prompt feedback, in comparison to other experiences with faculty, feedback is rated lower. One way to increase feedback on academic work is to institute high-interaction pedagogy, such as processcentered writing instruction and writing to learn strategies that encourage faculty-student interaction.

However, very few college professors are trained to teach or assess writing in this way and even fewer are taught to integrate writing into their content courses. What's more, faculty are often frustrated by the amount of time it takes to design effective writing assignments and to grade them. Instituting professional writing and communication as the next QEP topic will allow UHCL to provide the professional development necessary for faculty to integrate writing and professional communication more thoughtfully, purposefully, and efficiently. If selected as the next QEP topic, Writing Across the Disciplines will include a robust faculty development program that was already piloted in AY 2019-20 as part of the Center for Faculty Development Badge Program (Jacobs, 2019). The Writing-Focused Faculty Badge engaged a select group of faculty from three of the four colleges and representing a wide variety of programs. These faculty completed 10 hours of training, created assignments and activities that integrated the training into their own content courses, and are scheduled to present their work on Demo Day (delayed due to Covid-19 but rescheduled for this fall). This group of diverse faculty can serve as ambassadors for Writing Across the Disciplines and may be called upon to develop the first set of writing intensive courses.

Existing Programs

Writing-intensive certification programs are widespread throughout the country, further indicating how such a program could make UHCL more competitive in the market. Currently, 52% of American colleges and universities have a WAC/WID program in place (Gladstein and Fralix, 2017). UH-Central and UH-Downtown, both have long lists of approved writingintensive courses. The Texas A & M system requires a robust Writing in the Disciplines program on all campuses. Their program requires both formal and informal writing activities, opportunities for formative feedback (drafts), assignment sequencing guidelines, and lots of practice built into the syllabus.

Connection to UHCL Mission and Goals

UHCL's vision statement expresses a dedication to "achieving national prominence in transformative education" while the mission expresses a commitment to critical thinking and lifelong learning. Most importantly, the mission states "UHCL's teacher scholars provide high quality, student-centered undergraduate and graduate programs that prepare students to thrive in

a competitive workplace and to make meaningful contributions to their communities." Given employer emphasis on the value of written communication in the workplace, Writing across the Disciplines is an excellent choice for the next QEP topic. The type of adaptive rhetorical strategies advocated by WAC/WID pedagogy would indeed "prepare our students to thrive in a competitive workplace." There are few pedagogies more student-centered or transformative than writing instruction. Proper writing instruction advocates a high-level of interaction between students and instructors and provides insight into both the process and product of thinking critically. Thus, an active, process-centered writing pedagogy enables instructors to see, and therefore, shape student development. Further, the faculty development inherent in this QEP topic empowers UHCL's teacher-scholars to refine and enhance their craft in beneficial and rewarding ways. It's hard to imagine a topic more connected to UHCL's mission and goals.

Program Goals

- 1. Create a culture that supports and encourages student development as professional writers.
- 2. Equip UHCL faculty with the tools and knowledge needed to infuse their courses with formative and meaningful writing, via writing pedagogy seminars and workshops conducted by the Writing faculty and the first CFD Writing-Focused Faculty Badge recipients.
- 3. Generate discipline-specific guidelines for undergraduate writing, including rhetorical principles, essential genres, and value for future employment.
- 4. Add new and/or revise existing courses to meet writing-intensive requirements.
- 5. Revise all degree programs to require a minimum of two upper-division writing intensive courses. (The existing junior-level writing requirement will remain in place.)
- 6. Develop and expand new specialized courses under the WRIT rubric to provide student choice and enhance current program offerings campus wide.

Student Learning Outcomes

The following outcomes are borrowed from other QEP plans that have chosen to focus on

writing. Our unique set of outcomes will need to be developed in collaboration with faculty

across disciplines and based on our collective values. However, these serve nicely as examples of

potential outcomes for this topic.

- Convey explanations, analyses and/or arguments effectively through their written assignments.
- Synthesize information and/or multiple viewpoints related to the problem, question, or topic
- Apply appropriate research methods, theoretical framework and/or genre conventions to the problem, question, or topic
- Reflect on or evaluate what was learned or otherwise use writing to engage actively with course material;
- Recognize and practice writing as a recursive process that demands substantial reworking of drafts (global revision) to revise content, organization, clarity, argument structures, etc., as distinct from editing and correction of surface error (local revision);
- Demonstrate disciplinary forms and styles of writing that include proper citation format.

Target Student Population

The target population is upper-division undergraduate degree-seeking students to ensure that these students receive the professional communication training necessary to succeed in the workplace upon graduation. However, because many students undervalue writing instruction, the student awareness campaign, generating a culture of writing, should start with first-year orientation and continue through to graduation.

Potential Activities

Faculty Development

An important aspect of any writing-focused program is faculty development. Of the 52% of colleges and universities that have WAC/WID programs in place, 73% provide writing related pedagogical development and nearly all (85%) name "optional faculty workshops" as the preferred method of faculty development (Gladstein and Fralix, 2017). Very few college professors are trained to teach or assess writing and even fewer are taught to integrate the types

of writing that lead to high-impact practices, i.e. producing and *revising* various forms of writing *for different audiences* in different disciplines and emphasizing the three constructs: interactive writing processes, meaning-making writing tasks, and clear writing expectations. This type of engaged pedagogy must be carefully cultivated so that faculty are empowered to integrate high-impact practices with their own content expertise. This proposed QEP project will include a year-long faculty certification program in developing and teaching discipline-specific writing-intensive courses.

This proposed QEP program will equip UHCL faculty with the tools and knowledge needed to infuse their courses with formative and meaningful writing. In seven two-hour faculty development sessions, faculty will be introduced to the benefits of writing-intensive courses, the principles of teaching writing as a high-impact practice, and learn about designing effective writing assignments; scaffolding the writing process; integrating low-stakes writing-to-learn assignments; integrating reflective writing; assessing student writing; and providing effective, efficient, and purposeful feedback. Writing Program faculty and the first cohort of the Writing-Focused Badge can make up the first Writing Across the Disciplines Committee and assist new participants as they revise or design a course that integrates writing-to-learn strategies and assignments for learning-to-write in the disciplines. Similar to the QEP training for critical thinking, syllabi earn the writing-intensive designation when they meet the designated criteria (described below). Faculty are guided through meeting the necessary criteria by completing a minimum of six of the seven workshops in addition to culminating the certification program with a mini-demonstration of their W-focused teaching. It is also recommended to offer a bootcamp version in the summer, where faculty complete the training during a four-day retreat and return a week later to present a signature lesson and syllabus.

Defining Writing-Intensive

To be frank, the author of this proposal strongly believes that any criteria and assessment methods should be developed in collaboration with faculty across campus, in order to make sure the program enhances and strengthens existing pedagogy, rather than dictating new models. However, as a starting place, members of the writing program have suggested the following criteria for writing-intensive courses. New courses should meet the agreed-upon criteria, as determined by submitting syllabi to the Writing Across the Disciplines committee:

- 1. Courses capped at 25 students or employ enough teaching assistants to maintain a student-instructor ratio of 25:1. All TAs assigned to a W-designated course complete training. Larger course caps can be proposed but must be commensurate with guidelines for faculty workloads.
- 2. Syllabus informs students of the writing-intensive nature of the course, explains the value and relevance of writing effectively in the course and discipline, and makes explicit the relationship between writing and learning in the course.
- 3. Syllabus includes at least one meaningful discipline-specific writing assignment that models academic or professional writing in the field.
- 4. Writing assignments and activities count for a minimum of 50% of the course grade.
- 5. Syllabus includes writing assignments that engage students in intellectual activities central to the course objectives.
- 6. Syllabus includes writing-to-learn strategies to facilitate student learning.
- 7. Syllabus requires students to make substantial revision(s) of at least one graded, outof-class writing assignment, and participate in a well-structured peer review process.
- 8. Assignment prompts provide clear written descriptions of writing assignments and evaluation criteria.
- 9. Course schedule includes explicit discipline-specific writing instruction and class time to discuss discipline-specific writing conventions/strategies.
- 10. Course schedule includes explicit attention to the writing process (prewriting, research, writing, feedback, revision, and editing).

Student Awareness Campaign

The first goal of this proposed program is to "create a culture that supports and

encourages student development as professional writers." In accordance with that goal, the

student awareness campaign must begin with the very first day on campus. UHCL's commitment to writing should be integrated into first-year and transfer student orientation, along with banners and signs advertising UHCL's new commitment to Writing Across the Disciplines. Goal 3 is to "generate discipline-specific guidelines for undergraduate writing, including rhetorical principles, essential genres, and value for future employment" and these guidelines will be distributed widely by program and faculty advisors along with minor and major information. Goals 4-6 involve adjustments to the course catalog and increasing course offerings. These changes will also be publicized widely to ensure that students progress towards degree completion without delay.

Possible Assessment

Assessment is necessary for any new initiative to ensure the university is making progress towards goals and outcomes. Any assessment measure should be developed collaboratively with faculty and administration to ensure success of the program. The following are a few suggested methods for assessing the proposed QEP topic, Writing Across the Disciplines.

Program Goals

Goal 1 is the least tangible, but can be measured via a pre and post survey of student perceptions of writing support/encouragement. If the goal is successful, the second survey should see an increase in support and encouragement. Assessment of Goal 2 is likely the most complex, but can be measured by year-to-year enrollment in faculty training workshops and feedback from faculty at the end of each training sessions. The third Goal is measured by checklist – each program is asked to generate their discipline-specific guidelines by a certain deadline and checked off as they are completed. Goals 4-6 can be measured by simply counting the existing

courses and requirements and counting again at the end of the program. If there is an increase, these goals have been met.

Student Learning Outcomes

Student learning outcomes can be measured in a number of ways. It will be important to measure student learning within individual writing-intensive courses. A combination of direct and indirect assessment has been useful in evaluating the success of writing programs. Dr. Christal Seahorn implemented such a model for assessing the first-year writing program using a rubric to evaluate a random sample of student artifacts (direct) and a survey of student experiences to evaluate learning (indirect). Outcomes can also be measured indirectly via existing surveys such as the NSSE and UHCL's Graduating Senior Survey.

Student Success Outcomes

Student success outcomes can be measured via a simple pre and post assessment: take a snapshot of items such as retention rates, graduation rates, and enrollment at the beginning of the program and again at the end. We might also add a measure of Writing Center participation as evidence of support for student writing on campus. Comparison of the two snapshots should help us draw conclusions about the program's success. The NSSE and Graduating Senior Surveys should be helpful here as well.

References

AAC&U. (2015). *Falling Short? College Learning and Career Success*. Association of American Colleges & Universities. <u>https://www.aacu.org/leap/public-opinion-research/2015-survey-results</u>

- Adler-Kassner, Linda, Clark, Irene, Roberston, Liane, Taczak, Kara, & Yancey, Kathleen Blake. (2016). Chapter 1. Assembling Knowledge: The Role of Threshold Concepts in Facilitating Transfer. In Chris Anson, & Jessie L. Moore (Eds.), *Critical transitions: Writing and the question of transfer* (pp. 17-47). <u>https://wac.colostate.edu/books/perspectives/ansonmoore/</u>
- Adler-Kassner, L., & Wardle, E. (2015). Naming what we know: Threshold concepts of writing studies. http://site.ebrary.com/id/11069097

- Alarcon, G. M., & Edwards, J. M. (2013). Ability and motivation: Assessing individual factors that contribute to university retention. *Journal of Educational Psychology*, 105(1), 129–137. <u>https://doi.org/10.1037/a0028496</u>
- Anderson, P., Anson, C., Fish, T., Gonyea, R. M., Marshall, M., Menefee-Livey, W., Paine, C., Palucki Blake, L., & Weaver, S. (2017). How writing contributes to learning: New findings from a national study and their local application. *Peer Review*, 19(1). https://www.aacu.org/peerreview/2017/Winter/Anderson
- Council of Writing Program Administrators, National Council of Teacher of English, & National Writing Project. (2011). *Framework for Success in Postsecondary Writing* (pp. 1–10). https://files.eric.ed.gov/fulltext/ED516360.pdf
- Droz, P., & Jacobs, L. (2019). Genre chameleon: Email, professional writing curriculum, and workplace writing wxpectations. *Technical Communication*, *66*(1), 68–92.
- Engle, J., & Tinto, V. (2008). Moving beyond access: College success for low-income, first-generation students. The Pell Institute for the Study of Opportunity in Higher Education.

Engstrom, C., & Tinto, V. (2008). Access without support is not opportunity. Change, 40(1), 46-50.

Eodice, M., Geller, A. E., & Lerner, N. (2017). *The meaningful writing project: Learning, teaching and writing in higher education*. Utah State University Press. http://public.eblib.com/choice/publicfullrecord.aspx?p=4790023

Frazier, Dan. (2018). Towards a model of building writing transfer awareness across the curriculum. Composition Forum 38. <u>https://compositionforum.com/issue/38/transfer-awareness.php</u>

- Gladstein, J., & Fralix, B. (2017). National Census of Writing. https://writingcensus.swarthmore.edu/
- Hansen, K., Andelora, J., Estrem, H., Gardner, C., Janangelo, J., & Miller-Cochran, S. (n.d.). CWPA Position Statement on Pre-College Credit for Writing. Council of Writing Program Administrators.
- Hendricks, C. C. (2018). WAC/WID and transfer: Towards a transdisciplinary view of academic writing. *Across the Disciplines*, 15(3), 1-15. <u>https://wac.colostate.edu/atd/special/trans/</u>
- Kuh, G. D. (2008). *High-impact educational practices: What they are, who has access to them, and why they matter.* Association of American Colleges and Universities.
- Jacobs, L. S. (2018). Maximum impact: Cultivating writing across the curriculum at UHCL. Center for Faculty Development. Faculty Fellowship Proposal awarded April, 2018.
- Jacobs. L. S. and Droz, P. W. (2019). Developing writing-focused faculty at UHCL. Center for Faculty Development. Faculty Fellowship Proposal awarded March, 2019.
- Jacobs, L. S., Pennington, A., Wood, J. (forthcoming). Genre chameleons: Writing in healthcare administration. *Teaching writing in the health professions: Perspectives, problems, and practices,* edited by Michael Madson, Utah State University Press.
- National Commission on Writing. (2004). Writing: A ticket to work... Or a ticket out: A survey of business leaders. College Board.
- National Survey of Student Engagement. (2020). NSSE 2020 frequencies and statistical comparisons: University of Houston-Clear Lake. <u>https://www.uhcl.edu/about/administrative-offices/institutional-effectiveness/institutional-research/nsse2020-frequencies-and-statistical-comparisons.pdf</u>

National Survey of Student Engagement. (2020). NSSE multiyear report: University of Houston-Clear Lake. <u>https://www.uhcl.edu/about/administrative-offices/institutional-effectiveness/institutional-research/nsse-2020-multi-year-report.pdf</u>

- Office of Institutional Effectiveness. (2020). Graduating student survey Fall 2019: Total UHCL. <u>https://www.uhcl.edu/about/administrative-offices/institutional-effectiveness/documents/documents-institutional-effectiveness/survey-pdfs/gss-f2019-total.pdf</u>
- Ruff, S., & Carter, M. (2015). Characterizing employers' expectations of the communication abilities of new engineering graduates. *Journal on Excellence in College Teaching*, 26(4), 125–147.
- Tinto, V. (2006). Research and practice of student retention: What next? *Journal of College Student Retention*, 8(1), 1–19.