# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director’s Report</td>
<td>3</td>
</tr>
<tr>
<td>I. Faculty Initiatives</td>
<td>7</td>
</tr>
<tr>
<td>II. Graduate and Postdoctoral Learning</td>
<td>15</td>
</tr>
<tr>
<td>III. Undergraduate Academic Support Programs</td>
<td>22</td>
</tr>
<tr>
<td>IV. Grant Activity</td>
<td>30</td>
</tr>
<tr>
<td>V. Research, Assessment &amp; Evaluation</td>
<td>37</td>
</tr>
<tr>
<td>VI. International Projects</td>
<td>42</td>
</tr>
<tr>
<td>VII. Learning Communities</td>
<td>46</td>
</tr>
<tr>
<td>VIII. Services</td>
<td>47</td>
</tr>
<tr>
<td>IX. Dissemination</td>
<td>50</td>
</tr>
<tr>
<td>X. University Contributions &amp; Outreach</td>
<td>54</td>
</tr>
<tr>
<td>XI. People</td>
<td>59</td>
</tr>
<tr>
<td>XII. Appendix</td>
<td>64</td>
</tr>
</tbody>
</table>
Dear Colleagues and Friends,

My second year of supporting and directing the Searle Center for Advancing Learning and Teaching has been notable for the new partnerships and collaborations that have led to new achievements and innovations with impacts at Northwestern, across the nation, and internationally. We have expanded our core resources with a new Assistant Director for Diversity and Inclusion, who is supporting existing and launching new diversity, equity and inclusion efforts, and a new Assistant Director for the Center for the Integration of Research, Learning and Teaching (CIRTL) at Northwestern, who is growing professional development for STEM PhD students and postdocs, preparing them to be future faculty as well as succeed in non-academic career pathways. We have provided important support to successful interdisciplinary center grants, training programs, educational research projects, and graduate diversity fellowships. And we have led three newly awarded, multi-institutional NSF-funded projects, one large NIH project, and numerous smaller awards.

The Searle Center for Advancing Learning and Teaching is a research–practice partnership. We ground all our work in research, design and build projects from a foundation of evidence, and infuse research, assessment and evaluation in every program in order to learn, improve, and maximize the impact of our work. This research-practice partnership has become more fully developed over the past few years with the ten-fold expansion of grant-funded scholarly work and its integration into the central mission and vision of the Searle Center. We are now in a position to, for example, test large-scale models across nine universities to improve the inclusivity of research environments in STEM disciplines. This research informs our work with departments, The Graduate School, and other units at Northwestern. Our leadership in a new, national effort to develop inclusive teaching pedagogical preparation for current and future faculty aligns with our work in Searle’s Faculty Initiatives, in our diversity, equity and inclusion work, and in academic support of all Northwestern students.

Founded in 1992, Searle is one of the oldest centers of learning and teaching in the US and considered in the top few in terms of research-based practice and knowledge-generating scholarship. We create new knowledge in our fields, partner with experts, and explore new ideas and approaches. This scholarship and innovation requires funding, and the Searle Center has been very active and successful over the past two years. This year, we worked on 49 proposals, worth more than $100m, with more than 100 collaborators all across Northwestern, the United States, and abroad. About 50% were funded, for ~$40m, with a number still pending. Searle led and won four major awards and is partnering in several others for a total of $3.4m in new funding. Our major projects expand work in inclusive teaching pedagogy, access to and success in higher education for traditional underrepresented groups, supporting interdisciplinarity and collaboration at the nexus of math and biology, and a new national effort to support postdoctoral fellows with a comprehensive digital professional development program, called the Postdoc Academy.
This year has also been notable in advancing the success of all Northwestern students and faculty. We launched the new Academic Success and Learning Advancement (ASLA) unit, relocating the unit to the 2-North wing of the University Library. ASLA is the cornerstone of the new Academic Resource Center, which will partner across the University to consolidate a central resource around academic learning and success. ASLA supported more than 2000 Northwestern undergraduates this year in peer-guided study groups, academic mentoring and coaching, and drop-in tutoring. Our research demonstrates that students in peer-guided study groups do significantly better than a matched cohort, especially students who are less prepared, underrepresented and/or from low socioeconomic backgrounds. In addition, reflecting Searle's research-practice partnership model, we competed for and were awarded an NSF grant to host a conference at Northwestern bringing together researchers and practitioners to develop a national research agenda for student academic support, helping to provide an evidence-base for how all universities support student success.

This year, more than 500 graduate students and postdoctoral fellows engaged in programs that include a yearlong, peer-led Teaching Certificate Program, Graduate Teaching Fellows with projects in their departments, Mentored Discussions of Teaching, a Teaching-as-Research seminar, a STEM teaching MOOC with in-person learning communities, and numerous workshops. Our research on the higher engagement programs shows gains in cognitive, attitudinal and behavioral outcomes. We presented our work with on Generating Reflective Teaching Statements Through Generative Knowledge Interviews at a national conference.

The Searle Fellows program, the center’s flagship faculty development program, this year reached 268 tenure line and clinical faculty alumni, and is the most studied in the nation, yielding more than ten scholarly publications in its history. We are studying the widely acclaimed McCormick and University Teaching awards that have been bestowed on more than 100 Northwestern faculty over the past 25 years, asking about the impact of recognition on their teaching practice, philosophy and advocacy. We presented our work on Asking Questions About Learning: Taking a Scholarly Approach to Teaching at a national conference.

We are fulfilling our mission to advance learning in higher education. We partner across Northwestern and the broader academic community to catalyze and sustain change that supports learning at all levels, for all learners. We collaborate with everyone in this enterprise: faculty, postdocs, graduate students and teaching assistants, undergraduates and undergraduate peer mentors, and administrators. The Center plays a leading role in national and international scholarship, as well as engaging in conversations and collaborations with those who study and promote learning in higher education.
Internationally, our work has been recognized for the impact we have had in advancing learning and teaching in Palestine, developing and implementing models of faculty and student development in evidence-based learning and teaching at universities in Nablus, Hebron, and Tulkarm. We are partnering with the Segal Design Institute to implement information technology and engineering project-based learning at An-Najah University (ANU) in Palestine, and we hosted six exceptional ANU students involved in this work. Our work in promoting and assessing critical thinking in many environments, including with Syrian refugees in Lebanon, was rewarded with a plenary lecture at an international conference on non-formal education at the American University of Beirut.

Sharing has occurred across a broad set of university-wide initiatives and programs in learning and teaching. The Searle Center led the Assessment and Accreditation Council this year, formally taking over from the Provost’s Office. We expanded membership to all schools, developed a new set of tasks focusing on advancing the culture and practice of assessment as well as building institutional infrastructure to capture the great work being done by faculty and departments. We held the 5th Learning and Teaching Assessment Forum, keynoted by Provost Jonathan Holloway, and featuring workshops, learning, and advancing steps to practice.

Conversations in the space of digital learning and learning with technology have become regular, richer, and more directed between Searle, NUIT, and the Provost’s Office. This has led to the reinvention and reformation of leadership, synthesis and advice to the University. In the coming year, a new committee will be formed, the Learning and Technology Ecosystem Advisory Council which will bring together expertise, feedback, and voices from across the institution around learning and technology. This new structure will impact learning spaces, learning and technology in-person and online, and support innovation and capacity building in many units.

Partnering with the Registrar, the Searle Center co-developed a process for re-imagining student evaluation of instruction – CTECs – at Northwestern. This is a major undertaking with the power to transform how students observe and respond to faculty instructional practice, how administrators use student evaluation in merit, tenure and promotions, and how students speak to each other about the value of learning. This also has the power to encourage teaching innovation, expand the ways faculty are valued for their work, and advance the culture of learner-centered teaching at Northwestern. As part of this effort, the Searle Center will also lead a campus-wide discussion to help delineate the characteristics of excellent teaching so as to lay a foundation for its evaluation.

Our central mission to advance learning and teaching will be best achieved through three avenues: Direct engagements with faculty, graduate students, postdocs and undergraduates; infusing research-based practice across the fabric of the university in a large array of partnerships; and advancing
scholarship and innovation in collaboration with partners nationally and internationally. As the needs and demands of our students and other stakeholders change, we will reach and serve a wider range of participants with new programs. Similarly, our partnerships and collaborations support the deepening thoughtfulness and practices around learning and teaching, assessment and evaluation, and knowledge and scholarship in support of learning.

One particular area of growth this past year deserves special mention: Searle’s work to advance diversity, equity, and inclusion. While always a central principle and practice through all our work at Searle, we have significantly expanded this important work. The arrival of Omari Keeles, the new Assistant Director for Diversity, Equity, and Inclusion at Searle expands our expertise and resources to work with faculty across many areas. We highlighted inclusive teaching practice at Northwestern to more than 100 faculty and staff at the second annual Inclusive Teaching Forum, keynoted by Frank Tuitt, Professor of Education and Senior Advisor to the Chancellor and Provost on Inclusive Excellence. We spearheaded more than half a dozen proposals around inclusion in higher education, and were successful on a broad scale: We lead a new NSF program on developing and delivering across the country pedagogical preparation for current and future faculty in inclusive teaching; we are partners in a new national program, ASPIRE, to advance access to and success in higher education of traditional underrepresented groups; we are continuing and expanding our work with SIREN, Supporting Inclusive Research Environments at Northwestern, and many more.

The Searle Center is well positioned to achieve expansion of both direct programs and building capacity through partnerships. In particular, the Directors Nancy Ruggeri in Graduate and Postdoctoral Learning, Marina Micari in Academic Support & Learning Advancement, Susanna Calkins in Faculty Initiatives and Denise Drane in Research and Evaluation are nationally recognized experts from whom I learn every day. They lead in directing programming at Northwestern and lead in national and international projects and programs, and together we create and co-lead in broader initiatives across the university and beyond.

Finally, Northwestern is a remarkable place for learning and teaching. Faculty and students, administration and staff— all share a vision for the success of every student. We are all dedicated to this vision, and I am proud to lead the Searle Center that sits at the heart of working to achieve it.

Bennett Goldberg

Director, Searle Center for Advancing Learning and Teaching
I. Faculty Initiatives

The Searle Center seeks to build capacity in individual faculty members, as well as in departments and schools, in areas related to teaching; diversity, equity and inclusion; assessment of student learning; course design and curriculum mapping; mentoring; and enhancing learning and teaching with technology.

FACULTY INITIATIVES HIGHLIGHTS

This year we worked with hundreds of faculty across the university, conducting over 150 individual consultations, facilitating fourteen workshops (including three new ones on collaborative learning, assessing creativity, and classroom assessment techniques), and running the week-long Faculty Open Classroom Initiative (FOCI) for the second year. We also co-hosted three all-campus initiatives--the Fifth Annual Learning, Teaching and Assessment Forum, the second annual Inclusive Teaching Forum (with Dr. Frank Tuitt providing keynote address and interactive workshop), and the Broader Impacts Forum--drawing faculty from all three campuses. We have continued to evaluate the impact of our programs on our participants, and we have developed several new research initiatives to understand how faculty make sense of different practices, methods and tools. Several of our new research projects include the impact of our Teaching Consultant training on participants; how faculty understand and assess creativity and creative works; and examining the impact of an online feedback tool on faculty and their students. We are also pleased to welcome Omari Keeles, our new assistant director for Diversity, Equity and Inclusion, who will be leading the development of new initiatives in this area in the upcoming year.

The Searle Fellows Program

The Searle Fellows program is a comprehensive, year-long (eight month) faculty development program for 15-18 pre-tenure and teaching-line early career faculty. The program seeks to provide faculty with the expertise and knowledge to critically assess and solve problems in their courses. To participate in the program,
applicants must provide a description of a teaching project related to a course they teach and identify a senior
colleague who can serve as mentors to them. Faculty self-select for the program with the endorsement and/or
nomination of their deans or department chairs. The 5-6 faculty from the Feinberg School of Medicine are selected
by a committee overseen by the director of the Feinberg Academy of Medical Educators (FAME). The program
has two main objectives: 1) to strengthen participants' knowledge, understanding, and expertise in learning and
teaching and to build their capacity in these areas, and 2) to help them develop a project that will foster deep
student learning. These projects usually focus on the development of a new course or curriculum, revision of an
existing course or curriculum, or revision of a key assessment strategy in a course, curriculum, or other learning
context. During the year, faculty participate in 4 dinner meetings, an overnight retreat in fall, a full-day retreat in
spring, 3-4 workshops, 3 project meetings, individual consultations and evaluation activities (small group analysis
of their class, development and implementation of specialized instruments, etc.). Fellows must communicate their
project findings and reflections through a written critical account, a group poster, and presentation at the final
celebratory dinner.

This year, 19 early-career tenure-line faculty completed the full program, with another 19 senior faculty serving as
their mentors. Of these, 6 were returning mentors, and 7 were former Fellows. (See Appendix 12.2 for a complete
list of Searle Fellows, Mentors and projects). In addition, we asked two prominent Searle Fellows to return and
speak about their pedagogical innovations: Kannan Mutharasan from the Department of Cardiology spoke
about “Flipping the Script Increasing Learner Engagement with the Flipped Classroom in Medical Education;”
and Mesmin Destin from Human Development and Social Policy/Psychology spoke about “How Universities Can
Support Student Motivation and Equitable Student Outcomes.”

**Evaluation:** In their written critical accounts and final reflections, all 19 Searle Fellows indicated having
learned substantially from the program, in terms of their insights into their abilities and attitudes as
educators and as learners. We also conducted a pre-program survey and intake interview in September
2017; a Fall Retreat Evaluation survey completed December 2017; and an exit survey completed in June
2018. Overall, similar to previous years, survey responses indicate that participants benefited from learning
from each other's experience, that they found the program to be intellectually stimulating; and from their
written comments, that they gained a rich and rewarding experience that would help them to enhance
their teaching careers. They indicated that they found it helpful to hear from their mentor as well as
others’ mentors. They found sharing and discussing strategies and ideas with others in an open way both,
productive and enjoyable.

**Searle Fellows Extension:**

Even after they complete the program, former Searle Fellows continue to be actively involved in a variety of key
learning and teaching initiatives, in their own departments, schools and at the university. For example, in this year
alone, 2 facilitated sessions in the university’s Fifth Annual Learning, Teaching, and Assessment Forum (LTAF).
10 participated in the Faculty Open Classroom Initiative (FOCI), 2 served on the Feinberg Academy of Medical Educators (FAME), and 1 facilitated sessions at the Promoting Experiments in Teaching and Learning (TEACHx), an annual event, organized by the Northwestern Information Technology Faculty Support Services. Since 2014, 9 Searle Fellows have been awarded University Teaching Awards, the highest award offered by the university.

Comments from participants:

“...During the year I have had the opportunity to interact with individuals from different backgrounds, all of whom shared a common interest in improving education. I found each interaction an opportunity to reflect on my own efforts, however different they may be, to improve upon each aspect of my teaching to benefit our residency learners throughout their program...The Searle Fellows Program has been an amazing opportunity and I believe it will have a significant impact on all aspects of my teaching going forward. ... I am excited by the skill sets the fellowship has given me and welcome the future as I build upon them...”

“I felt like I knew nothing about techniques and approaches to non-lecture teaching, and importantly why there are effective. I gained that knowledge, or at least know where to looks for these resources.

“I am growing more confident in my teaching, and have a few new and promising ideas to try out.

“The workshops on topics like assessment, engagement, and collaboration gave me a lot of helpful techniques and ways of thinking.

“I walked away with a bunch of things I want to try in the classroom--big and small.”
CONFERENCES, WORKSHOPS, AND ROUNDTABLES

Faculty Open Classroom Initiative (FOCI)

FOCI is a week-long program to encourage faculty to increase their exposure to different teaching styles, to explore strategies across disciplines, and reflect on learning and teaching. Modeled after Yale Bulldog Days, the second Faculty Open Classroom Initiative (FOCI) took place during 2018 winter quarter (Feb. 19th to 24th) with a reception the following week (February 28th). FOCI seeks to make teaching more transparent and public by providing opportunities for faculty to open their classrooms and to visit colleagues’ classrooms. Postdocs, grad students and interested staff members were also invited to observe classrooms.

This year, 104 faculty opened 110 courses yielding 320 registrations to visit in courses such as “Quantum Mechanics,” “Structural Design” and “Elementary Polish.” Approximately thirty participants also attend the follow-up reception. On average, 2-3 faculty participated in each session with a range of 1-6 participants overall.

**Evaluation:** We administered a post-participation survey via Qualtrics; 104/189 participants responded to the survey yielding a 55% response rate. Participants were directed to specific questions based on their participation: “Opened classrooms to visitors, only;” “Visited Classrooms Only;” and “Both, Opened and Visited Classroom(s).” All participants were asked to reflect on their experiences participating in the initiative and what, if anything, they had learned from the process. Overall, participants were able to: a) identify teaching practices that they would like to use in their own classrooms; b) engage in subsequent activities around learner and teacher development; and c) initiate and continue discussions around teaching and learning. 88% of the survey respondents indicated that they were very likely to recommend FOCI to colleagues selecting 6 or 7 on a 7-point scale. The overwhelming majority of participants could also envision themselves participating in FOCI again: 88% as a visitor and 77% percent as an instructor opening their classroom to others.

Inclusive Teaching Forum (ITF):

The second annual Inclusive Teaching Forum (ITF), “Promising Practices: Learning from Our Community,” was a half-day event designed to foster dialogue among faculty, grad students/postdocs, and staff around inclusive teaching and learning at Northwestern. The day included remarks from Provost Jonathan Holloway and Dr. Jabbar Bennett (Associate Provost for Diversity, Inclusion and Equity); a
plenary and an interactive workshop by Dr. Frank Tuitt (Senior Advisor to the Chancellor and Provost on Diversity and Inclusion at the University of Denver and Professor of Higher Education in the Morgridge College of Education); five concurrent roundtable sessions respectively facilitated by Hewlett Faculty Fellows, Change Makers, Social Justice Education Director (Student Affairs), Feinberg School of Medicine faculty, and a Medill School of Journalism faculty (see table 1); and closing remarks by Dr. Bennett Goldberg. Overall, 96 people attended the event (including 48 faculty, 41 administrators/staff, and 7 grad students/postdocs). The workshop and roundtables were designed to help participants: 1) critically reflect on promising practices in inclusive teaching and learning at Northwestern; 2) identify and share promising practices at Northwestern; 3) explore issues of inclusion, equity and diversity in learning and teaching; 4) engage in discussions around promising practices for inclusive teaching and learning; and 5) continue to create a culture of inclusive teaching practice.

**Evaluation:** We collected reflections about the forum from a third of its participants through a post-forum survey. Three-quarters of respondents indicated that they would highly recommend that a colleague attend the forum next year (selecting a 6 or 7 on a 7-point scale). When participants were asked what they plan to incorporate into their teaching as a result of the forum, several said they would be rethinking their classroom discussions and/or small group work, and commented that they would have an increased level of empathy for their students (and their backgrounds, histories, and perspectives). Participants also suggested that Northwestern needs to continue and broaden these discussions, and provide trainings, in order to increase faculty awareness and capacity for creating inclusive teaching environments. See Table 1 in Section 12.1 for more details.

**Learning, Teaching, and Assessment Forum (LTAF):**

We offered, in collaboration with the Office of the Provost and the Assessment/Accreditation Council, the fifth annual Learning, Teaching, and Assessment Forum, “Sharing Insights into Student Learning.” Approximately 140 faculty, graduate students, postdocs, administrators, and staff from nearly every school and college convened at Norris University Center to participate in eight faculty-led roundtables around a range of key issues in learning and teaching. Topics included curriculum mapping, assessing critical thinking and creative work, using formative assessments to gauge student learning, assessing graduate work, and exploring cultural relevance and immersion. A student panel, consisting of nine undergraduate and graduate students from a range of disciplines and experiences, provided relevant and reflective advice to faculty. For example, one student advised faculty to
“assume the best” in their students and another said, “If you’re going to address issues of inclusion, don’t do it halfway.” See Table 2 in Section 12.1 for more details.

**Evaluation:** A week after the forum, 54 participants completed a follow-up survey for a response rate of 43%. Survey findings indicate that the majority of LTAF participants attend in order to get new ideas for improving their own teaching and assessment practices. Based upon survey findings over the past 5 years, Forum participants generally believe that the Forum succeeds in meeting its stated goals—particularly the goal to encourage innovative thinking about learning, teaching, and assessment, and the goal to offer presentations about strategies that could be applied to multiple disciplines or areas. Half of the participants (52%) indicated that they were very likely to recommend the Forum to a colleague in the future, selecting a 6 or 7 on a 7-point scale. One faculty member commented: “I look forward to this conference every year. I appreciated the in-depth views and time for discussion among presenters and participants.” For many participants, the revised roundtable structure was an important way of engaging the audience and panelists around key ideas. In a post-program survey, one survey respondent explained, “The sessions were not just about what the panelists had to say, but actively engaged those in the room to hear their experiences, questions, and concerns.”

**FACULTY WORKSHOP SERIES**

We offered 14 interactive workshops this year, focusing on a range of topics including three new workshops: Teaching Together—Making Co-Teaching ‘Work,’ Assessing Creative Work, Promoting Collaborative Learning
in Large and Small Classes, Inclusive Course Design, Engaging Students While Gauging Learning: Classroom Assessment Techniques. One session was an in-person webinar on How to Facilitate Difficult Dialogues in the Classroom. (See Table 3 in section 12.1 for more details.

**New Faculty Workshop (NFW):**

The New Faculty Workshop is a half-day interactive workshop designed to help new faculty (e.g. full-time, part-time, tenure-line, non-tenure line, adjunct) reflect critically on learning and teaching at Northwestern, engage in a dialogue about key issues in learning and teaching, and become acclimated to student issues and concerns. The workshop featured activities related to designing learning objectives, promoting active learning and critical thinking, and assessing student learning. We also offered a panel featuring undergraduates answering faculty questions and concerns. Forty-nine new faculty participated in the program.

**Evaluation:** Participants were from various fields and their prior teaching experience range from “less than one year of teaching experience” to 7 plus years of experience. Thirty-nine percent of participants completed a 15 item post-workshop survey. 89% agreed scoring 4-5 on a 5-point scale that the workshop was relevant to their teaching. 84% of the participants agreed he workshop was engaging. 84% of the respondents agreed scoring 4-5 on a 5-point scale that overall, the workshop was satisfactory.

**University Teaching Roundtables (UTR):**

The UTRs are sponsored by the Provost and hosted by the Searle Center. Each roundtable – meant to be an interdisciplinary forum exploring current topics in teaching and learning – is led by a Charles Deering McCormick Professor of Teaching Excellence, a McCormick Distinguished Lecturer, or an Alumnae of Northwestern Teaching Professor, the highest awards for teaching offered by the University. See Table 4 in Section 12.1 for more details.

**Roundtables:**

- Jeremy Birnholtz, “Choose Your Own Adventure: My Experience with Offering Students a Menu of Assignment/Activity Options in a Lecture Course”
- Vasili Byros and Francesca Tataranni, “Crafting the Curriculum to Foster Students’ Creativity and
Independent Learning”

- Nick Davis, “Bringing the ‘Real World’ into the Classroom”
- Elizabeth Gerber, “Using Improv to Overcome Barriers to Team Creativity”
- Tracy Vaughn-Manley, “Mining the Personal to Overcome Intellectual Insecurity”
- Erin Waxenbaum, “Engaging undergraduates in productive discussions”

**Specialized Internal Workshops and Sessions for Faculty:**

We also conducted specialized workshops and sessions for specific units at Northwestern, tailored to the needs of individual departments and programs. These included:

- Data Science/Predict Capstone Project Assessment, Winter 2018 (SPS)
- EPICS: Designing Courses Around Learning (Session 1) June 2018 (SoC)
- EPICS: Engaging Students and Assessing Learning (Session 2) June 2018 (SoC)
- “Exploring Context and Culture: Inclusive Teaching at Northwestern” for WCAS New Faculty Orientation Sept 2017 (WCAS)
- “Inclusive Teaching,” Linguistics Department, October 2017 (WCAS)
- MHI: Capstone Assessment Project Session (SPS) March 2018 (FSM)
- MSHC: “Syllabus Study” August 2018 (SoC)
- Programs in Public Health: “Competency-Based Assessment” (PPH Retreat 1) Dec 2017 (FSM)
- Programs in Public Health: “Building critical thinking into course design” (PPH Retreat 2) June 2018 (FSM)
- “Social Identity and Perspective Taking: Inclusive Teaching and Advising at Northwestern” for WCAS First Year Studies faculty (with Rob Brown) Sept 2018
II. GRADUATE AND POSTDOCTORAL LEARNING

We support graduate students and postdoctoral fellows in becoming reflective teaching practitioners with the aim to advance their careers and improve student learning and to advance the instruction provided to Northwestern undergraduates.

GRADUATE AND POSTDOCTORAL LEARNING HIGHLIGHTS

The Center leads professional development programs and events to support future faculty throughout their career trajectory. Programs such as the New TA Conference (NTAC), the NTAC Workshop Leaders, the yearlong Teaching Certificate Program, the Graduate Teaching Mentor program, the Graduate Teaching Fellows program, CIRTL at Northwestern, and the Graduate and Postdoctoral Workshop Series are all aimed at developing reflective approaches to learning and teaching. This past year, over 500 graduate students and postdocs participated in our programs: 190 attended our New TA Conference; 208 attended our Searle Graduate and Postdoctoral Workshops; and 58 completed our year long Teaching Certificate Program. We also had 161 graduate students and postdocs from STEM and SBE disciplines participate in our CIRTL at Northwestern programs.

New TA Conference (NTAC):

The New TA Conference (NTAC) is a one-day conference held each September for graduate students with teaching responsibilities at Northwestern. Through peer-led workshops, graduate students prepare to teach in their discipline. In 2017, we offered 18 discipline-specific workshops in the morning and 15 cross-disciplinary workshops in the afternoon and hosted a panel session featuring five experienced graduate students. 230 registered for the event and 190 attended. For New TA
Conference participation by school, see Table 1 in Appendix 12.3.

**Evaluation:** Participants completed paper evaluations at the conference, rating each workshop on a 5-point scale and providing comments on “what went particularly well” and “what aspects of this workshop could be improved.” The average rating for the 18 discipline-specific workshops was 4.59 out of 5. The average rating for the 15 cross-disciplinary workshops was 4.47 out of 5. For both types of workshops, participants commented favorably on the opportunity to ask questions related to teaching in general and in their departments, grading student work, and seeing effective teaching strategies modeled.

**NTAC Workshop Leaders:**
We provided four days of training for 28 NTAC Workshop Leaders from across disciplines to develop and implement active workshops at the New TA Conference. During the first pair of training days, Workshop Leaders and Graduate Teaching Fellows (GTFs) learned about effective approaches to teaching and learning while developing skills necessary to implement co-facilitated interactive workshops. During the second pair of training days, the NTAC Workshop Leaders and GTFs presented portions of their workshops and received peer feedback.

**Teaching Certificate Program (TCP):**
The Teaching Certificate Program is designed to help graduate students and postdocs prepare to teach at the college level. Through a series of interactive seminars, faculty mentoring, peer-led workshops, and peer-led small group discussions, participants work to develop a learner-centered course in their discipline and create a reflective teaching statement. Seminars focus on learner-centered course design, inclusive pedagogy, assessment of student learning, and evaluation techniques. Reflective activities are integrated throughout the program to encourage participants to reflect on their approaches to teaching and learning. This year, 58 participants completed the program, 7 of whom were postdoctoral fellows. For participation by discipline, see Table 2 in Appendix 12.3.

**Evaluation:** At the end of the program, participants were asked “Based on your experience in the Teaching Certificate Program, how likely are you to recommend it to a peer?” The mean response to this question was 3.9 out of 5 (5 = extremely likely, N= 54). One participant commented, “The program taught me so much about teaching that I simply wouldn’t otherwise learn in a graduate program, and I think that every
The Certificate program in particular clarified my thinking on what it is we are trying to do when we teach, expanding critical thinking, moving up the levels of learning, rather than dissemination of information. This was a critical foundation for me as I thought about teaching and learning in and out of the classroom.

- Former participant and current R2 faculty

All of the grad mentors and TCP facilitators were incredibly helpful, enthusiastic, and informative!

- 2017-18 Teaching Certificate Program participant

The [Teaching Certificate] program taught me so much about teaching that I simply wouldn't otherwise learn in a graduate program, and I think that every grad student should have the opportunity to learn skills that will likely be very important in any academic position they eventually take.

- 2017-18 Teaching Certificate Program participant

Graduate Teaching Mentors (GTM) Program:

Graduate Teaching Mentors guide peers in the Teaching Certificate Program (TCP). Six mentors were appointed for three quarters for a $3,000 stipend, three of which are funded by the Searle Center and three by The Graduate School. Each mentors 10-12 TCP participants in 2-3 discipline-specific groups, guiding their growth as reflective practitioners, providing oral and written feedback on their course development and teaching statements, as well as discussing and applying relevant literature on teaching and learning.
Graduate Teaching Fellows (GTF) Program:
The Graduate Teaching Fellows are a select group of advanced graduate students across disciplines who develop their teaching and professional skills while contributing to the pedagogical development of graduate students at Northwestern. Fellows are appointed for a full academic year with a stipend of $3,000. This year we had significant growth in the program from eight last year to twelve this year. Funding support comes from both the Graduate School and home of departments of successful applicants. Departments with funded GTF lines include Chemistry (2), Political Science (1), and the Northwestern Interdepartmental Neurobiology (NUIN) Program (1). GTFs develop and implement projects that contribute to the pedagogical development of graduate students in their departments, lead workshops at the New TA Conference and the Searle Center, and conduct teaching observations for Searle.

Graduate and Postdoctoral Workshop Series:
To provide continuing support to graduate students and postdocs in their teaching, we offer a series of interactive workshops at the Searle Center. Workshops are developed and co-facilitated by Center staff, trained Graduate Teaching Fellows, and Workshop Leaders. This year, we offered 20 workshops on topics such as Implementing Classroom Assessment Techniques, Responding to Student Writing, and Making the Most of Student Feedback. We had a total of 207 graduate students and postdocs attend our workshops throughout the year, with a range of 4-22 at each session. On a 5-point scale, the evaluation average rating for this series was 4.52. See Table 3 of Appendix 12.3 for more details.

Specialized Workshops and Sessions for Graduate Students and Postdocs:
In addition to our regular workshop series, we worked with departments and programs to provide workshops aimed specifically at their particular interests. This year, we led workshops in Communication Sciences and Disorders and the Driskill Graduate Program and presented an interactive session on “How to address inequalities faced by women in STEM and Academia” at the Chicago Women in STEM and Academia Initiative. Additionally, we offered several two-part “Developing Effective Teaching Statements” and “Developing Effective Teaching Portfolio” workshops open to all graduate students and postdocs at Northwestern that focused on identifying key themes in participants’ teaching philosophies and peer reviews of teaching statements and portfolio materials. We also did a session “Developing Work/Life Resilience,” for Health Services and Outcomes Research (HSOR). See Table 3 of Appendix 12.3 for more details on the teaching statement and teaching portfolio workshops.
CIRTL AT NORTHWESTERN HIGHLIGHTS

The Center for the Integration of Research, Teaching and Learning (CIRTL) is a network of universities working together to enhance undergraduate education through the development of future faculty. CIRTL at Northwestern is designed to build a community of practitioners within and across disciplines – both locally and nationally – to improve undergraduate student learning in the STEM and SBE disciplines. Graduate students and postdoctoral fellows participate in our local on-campus and national online cross-network programs. CIRTL emphasizes three core ideas: Learning through Diversity, Learning Communities, and Teaching-as-Research.

CIRTL at Northwestern is currently comprised of programs and learning communities: Mentored Discussions of Teaching, the Searle Teaching-As-Research (STAR) Program, the Teaching Certificate Program, MOOC-Centered Learning Communities, and the CIRTL Workshop Series. One hundred and sixty six graduate students and postdoctoral fellows participated in CIRTL at Northwestern programming during the 2017-2018 academic year, including five participants from the Humanities.

Participants in CIRTL at Northwestern programming can achieve different levels of certification as they successfully complete programs aligned with the CIRTL core ideas and are recognized by other CIRTL network institutions. This academic year we had 23 participants achieve certification at the CIRTL Associate level, 27 participants at the CIRTL Practitioner level, and 6 participants at the CIRTL Scholar level.

CIRTL Workshop Series:

In conjunction with the Graduate and Postdoctoral Workshop Series, six CIRTL at Northwestern workshops were offered on topics such as “Engaging the Disengaged: Active Learning in STEM” and “Mentoring as Teaching: Best Practices in a Research Lab”. We had a total of 66 graduate students and postdocs attend this series throughout the year. Some workshops were peer-led by trained workshop leaders, while others were facilitated by Northwestern Faculty or Searle Center Staff. See Table 3 of Appendix 12.3 for more detail.

Mentored Discussions of Teaching:

Mentored Discussions of Teaching (MDT) is a quarter-long program where participants observe faculty
teaching and meet with them to discuss their teaching methods. Participants also attend three meetings co-facilitated by Lauren Woods (Assistant Director, CIRTL at Northwestern) and Rob Linsenmeier (Biomedical Engineering) where they discuss their classroom observations and key topics in learning and teaching. MDT was offered two quarters and served 29 graduate students and 7 postdoctoral fellows.

**Evaluation:** Participants completed a post-program evaluation where they were asked to rate their overall satisfaction of the program. All 20 evaluation respondents reported being satisfied or extremely satisfied with the program. Participants were also asked how participation in MDT influenced the way they think about teaching and learning in their discipline. One participant reflected that MDT “...was the first time I learned specifically about approaches to learning, rather than through observation alone. It has helped shape the way I view diverse classrooms, my own personal teaching style, and the importance of educational literature when developing a curriculum.”

**MOOC-Centered Learning Community (Introduction to Undergraduate STEM Teaching)**

The MOOC-Centered Learning Community (MCLC) is comprised of graduate students and postdoctoral fellows who are simultaneously enrolled in the CIRTL MOOC (An Introduction to Evidence-Based STEM Undergraduate Teaching) led by Lauren Woods or a trained peer leader. Participants meet weekly in person to discuss MOOC material and create a community of learners. These meetings were offered in the Fall and Summer quarters serving a total of 8 graduate students, 12 postdoctoral fellows, and 1 staff member.

**MOOC-Centered Learning Community Peer Leaders:**

MOOC-Centered Learning Community (MCLC) Peer Leaders are former MCLC participants who facilitate and lead an MCLC. Peer leaders attend a training session where they reflect on the role of a peer leader, discuss strategies
for building a learning community, and begin planning their MCLC meetings. They also attend weekly online meetings to discuss their peer leader experience and plan their MCLC meetings. In this pilot program, we had 3 MCLC Peer Leaders from a variety of STEM disciplines. At the end of the program peer leaders reflect on their experience, and one peer leader thought that being a peer leader, “...will definitely be helpful in my future career - this is one type of environment I hadn’t had experience as a leader or instructor until now, and I’ll be able apply what I’ve learned to my teaching.”

**STAR Program:**

The Searle Teaching-as-Research (STAR) program is a two-quarter classroom-based research initiative aimed at improving learning and teaching in STEM and SBE disciplines. Participants develop research questions in a classroom context; review literature to inform the project design; select and implement appropriate research methods; collect, analyze, and interpret research data; reflect on research findings and implications; and present their research at a final poster session open to the Northwestern community. This year’s cohort of six graduate students came from Chemistry, Computer Sciences and Learning Sciences, Plant Biology and Conservation, and Interdisciplinary Biological Sciences (IBiS). Final STAR projects posters can be viewed at the [CIRTL at Northwestern page](https://cirtl.northwestern.edu) of Searle’s website.
III. ACADEMIC SUPPORT & LEARNING ADVANCEMENT

In January 2018, the Searle Center collaborated with campus partners to launch a stand-alone unit dedicated to undergraduate academic support, Academic Support & Learning Advancement (ASLA). Northwestern students, prospective students, and families can now easily find learning support with a dedicated, branded unit serving all undergraduates. The launch was the result of a successful partnership beginning in 2016 with Weinberg College, which resulted in a joint proposal to University leadership to centralize tutoring and academic coaching for Northwestern undergraduates. The plan combined Searle’s longstanding academic support initiatives, peer-tutor training, and program evaluation expertise with existing Weinberg College tutoring to create a more comprehensive and more visible “learning center” for Northwestern undergraduates. The ASLA unit replaces the undergraduate programming area of the Searle Center.

The University Libraries later became a third partner, offering the 2 North space of the Main Library along with collaboration opportunities and the possibility for an even larger physical hub for various kinds of academic support. (See the Academic Resource Center section later in this document.)

ASLA offers course-linked support to some 30 STEM courses, including economics and statistics, as well as a variety of programs and services for students seeking to improve or enhance their academic strategies. Central to the ASLA model is the idea of peer-to-peer support. ASLA programs encourage peer support and collaborative learning, and are led by experienced, trained undergraduates who are committed to encouraging their fellow students’ success. The peer-based model allows for a greater level of comfort in the programs than students might feel in the classroom or office hours, meaning that students may be more likely to ask questions and express doubt or confusion – an essential component of learning. Peer leaders play the role of guide or learning facilitator, rather
than instructor, and encourage fellow students to engage in effective study practices and make use of faculty office hours and other academic resources.

ASLA’s programs take place in a variety of locations, making it convenient for students to access support wherever they happen to be. Study groups -- more than 100 each quarter -- and coaching sessions happen in classroom buildings, residence hall spaces, the Norris Center, and other locations all over the Evanston campus, and drop-in tutoring is offered in residence halls and in the Main Library.

Since its January launch, the ASLA website had nearly 19,000 unique page views (nearly 23,000 total page views), with nearly 10,000 unique page views to its “Reach Your Academic Potential” section, which offers online guidance for effective studying and learning.

KEY ACCOMPLISHMENTS THIS YEAR INCLUDE:

Unit-wide

• Creating and executing a communications plan for ASLA in collaboration with Global Marketing, which included feature web stories, communications to all faculty, and a multifaceted approach to student outreach

• Convening the ASLA advisory board to solicit input into ASLA’s strategic plan

• Developing a new Program Assistant position, and hiring and onboarding Ashley Truong in this position, to enable ASLA to expand the reach of its programming and operate more efficiently and with greater attention to student needs

Programs

• Successfully integrating the former Weinberg College evening tutoring into the ASLA tutoring program, to create greater oversight, alignment, and systematization

• Developing a plan with McCormick to incorporate components of the current Tech Tutoring program into the ASLA tutoring program

• Successfully launching the new Peer-Guided Study Group program, which replaces the AMP and GSW programs

• Rethinking and revamping the Academic Strategies Workshop program, to create a more responsive and appealing approach for our student audience

• Updating the UPAL program to better meet students’ needs

• Piloting evening Economics & Statistics tutoring in the library

• Working with the AdviseStream team to integrate Peer Academic Coaching into the AdviseStream system

• Launching staff consultations by request

• Expanding professional development for student peer leaders through inclusion of multiple campus partners
Outreach and Partnerships

- Winning an NSF grant for a conference focusing on academic-support research, in collaboration with Washington University - St. Louis
- Initiating a partnership with Student Assistance and Support Services to better serve students returning from leave
- Convening a group of campus colleagues who run peer-mentoring programs to better understand and align various efforts and explore goals together.
- Exploring academic-support needs of students of color through focus groups, in conjunction with Multicultural Student Affairs, with accompanying plans for MSA-focused programming next year
- Exploring academic-support needs of international students through focus groups, in conjunction with the International Office

ASLA PROGRAMMING 2017-2018

Course-Support Programming:

ASLA offers support for students in particular courses through its Peer-Guided Study Group program and its Drop-In Tutoring programs. These programs serve more than 30 courses in Biology, Chemistry, Mathematics, Physics, Engineering, Economics, and Statistics.

Peer-Guided Study Groups was a new program launched in fall 2017, replacing the AMP and GSW programs. Like those programs, it uses a peer-led, small-group model. In weekly sessions, students bring their questions for group discussion, review class material, and work through practice problems together. Students register at the start of the quarter and are required to attend each week. In 2017-18, 1,588 students participated in study groups, and 113 peer leaders facilitating the groups. Outcomes: In a matched data set of 2,216 students from 2017-18 (program participants and nonparticipants were matched on gender, underrepresented status, Pell recipient status, academic rating, course, and quarter), there was a small but highly significant grade advantage for program participants. Differences were larger for underrepresented students, Pell students, and students with lower academic ratings. Participants on average also showed greater gains (with statistical significance) in self-efficacy for their course performance than nonparticipants (n=118 students completing a pre-post survey). Student subjective ratings of the study groups were fairly high, for example with the average score for “Being in the Study Group helped me do better in the course” 4.47 (out of 5) and...
the average for “I understand the material better as a result of being in the Study Group” 4.54.

Drop-In Tutoring, with the launch of ASLA, has expanded its coverage and is offered multiple times a week. Over the year, we had 1,753 tutoring sign-ins, with 45 peer tutors providing support. This represents 520 individual students. 66 percent of these students were female, 32 percent male, as compared to an approximately 50/50 split in the represented classes at large. (The rest were unspecified; other gender options are not available in the student record system.) 28 percent were underrepresented minority students (Black/African American, LatinX, Native American), as compared to 23 percent in the represented classes at large; 63 percent were not (the rest unspecified). Underrepresented students and women were also more likely to attend repeatedly than were non-URM students and men. The mean SAT-math score among tutoring attendees was 705. This compares to a grand mean score of 729 in the courses represented at large. These data suggest that, on the whole, students attending drop-in tutoring may be more likely to benefit from extra support than many of their peers. **Outcomes:** Average mean score across quarters for “I would attend again in the future, if I am taking a course covered by the program” was 4.45 (5=strongly agree; n=234), suggesting that on the whole, students find the tutoring valuable. Moreover, students who attended Drop-In Tutoring at least once had higher (statistically significant) end-of-year cumulative GPAs than those who did not attend, controlling for beginning-of-year GPA, gender, Pell eligibility, and underrepresented student status. (We note that it is possible that students who choose to attend are also engaging in other forms of help-seeking or similar behaviors that may positively impact GPA. It may also be that attending tutoring increases the likelihood of students seeking out other kind of help, and in fact the mean response to “After attending, I am more likely to seek out academic help in the future” was approximately 4.25 out of 5 [5=strongly agree].)

**General Academic Strategies Support:**

ASLA provides support for general learning strategies through the Undergraduate Program for Advancing Learning (UPAL), the Peer Academic Coaching program, and Academic Strategies Workshops.

**UPAL** brings students together in small groups with a peer mentor, weekly throughout a quarter, to gain insights and concrete strategies for studying, managing time, recovering from setbacks, and staying focused in a competitive environment. Last year, 86 students participated in the quarter-long UPAL program, with 14 peer leaders. **Outcomes:** Based on pre- and post-program surveys over the past four years (n=255), participants are more likely to make gains in help-seeking attitude, in utilizing peers as an academic resource, in managing their
time effectively, and in sense of belonging at Northwestern. Data comparing grade outcomes for participants versus comparable nonparticipants for last year is still to come.

**Peer Academic Coaching** pairs students who are facing academic challenges with a trained peer coach. The pair meets on their own schedule, typically for a quarter but sometimes longer. Peer coaches provide insights into strategies, practices, and resources that will help students thrive in Northwestern’s challenging academic environment, and guide students through reflection, goal-setting, and other developmental exercises. Last year, 31 students received ongoing peer coaching, from 10 peer coaches. We are in the process of designing a more robust evaluation plan for the Peer Coaching program, but current exit surveys suggest that the majority of students find the Coaching experience highly useful. Representative comments include “Coaching has definitely been transformative in my academic performance...” and “The coaching was incredibly helpful... meeting weekly with my coach allowed me to stay grounded and focus on what I wanted to achieve....”

**Academic Strategies Workshops** are one-hour interactive sessions focusing on topics such as time management, preparing for exams, and communicating with faculty. Last year, 44 students participated in 8 one-hour Academic Strategies Workshops. Outcomes: Data collection for these workshops has been limited, but students completing a feedback survey (n=10) averaged 3.4 on “How helpful did you find this workshop?” (1=not at all, 3=moderately, 5=extremely). While this score indicates that students found the workshops moderately helpful or better, we aim for higher scores and have undertaken a review and revision of the program as a result.

In addition, ASLA program managers had 16 private consultations with 9 different students looking for support with academic challenges. (We began offering this service after our move to the Library in January.)

ASLA also manages the University-wide [Academic Resource Portal](#), a comprehensive listing of a wide variety of academic resources for undergraduates. In AY 2017-18, we had 27,863 unique page views (32,031 total page views). This is up from 15,000 in the previous year. A revamp of the Portal is planned for the coming year.

**Academic Leadership Programming**

**Training for ASLA Peer Leaders**

All ASLA peer leaders receive training, most of which takes place during the fall and winter quarters. New
Peer-Led Study Group leaders enroll in **SESP 291: Mentoring Learning in the STEM Disciplines**, during those two quarters, contemporaneous with their peer-leader work. **Sixty-seven** students took the course last year. Peer leaders in other programs take part in training in the form of initial orientation sessions and ongoing staff meetings and professional development sessions. ASLA also holds special events for peer leaders, including an end-of-year lunch, to recognize their contributions to the University community.

**Student-Organized Seminars (SOS) Training program**

This program supports undergraduates who lead student-organized seminars (SOSs). These seminars are student-proposed, student-developed, and student-led credit-bearing courses within Weinberg, School of Communication, SESP, and Bienen. ASLA provides training to the student leaders, to help them gain skill and confidence in course design and group facilitation. **13** students participated in 2017-18. Students responding to a feedback survey (n=6) averaged a 4.3 rating on the question “Rate how well the series aided in your development” (1=not at all; 5=extremely well).

All academic support programs combined, in 2017-18 we had 3,502 total student participants, and 185 peer leaders. This is up from 2,400 participants and 165 peer leaders in the previous year.

**Campuswide Events**

**For Students**

In October we held a forum open to all Northwestern first-year students entitled Navigating Northwestern Academics, which featured a panel of three faculty/dean’s office staff and two students. The dinner program offered attendees perspective on academic expectations at Northwestern, anticipated challenges and strategies for overcoming them, and opportunity to ask questions and reflect on these issues with peers. Twenty-five students attended.

**For Faculty and Staff**

ASLA offered two workshops this year to advising staff and faculty:


**Conference Grant**

ASLA has won a $52,000 NSF grant (PI Marina Micari; co-PI Jay Sriram, Washington University), in collaboration
with Washington University-St. Louis, to fund a national conference focusing on research in STEM academic support at the undergraduate level. The conference, titled *Developing a National Research Agenda for Academic Support in STEM Higher Education*, would bring together approximately 100 learning-center staff, education scholars, STEM faculty, administrators, and students to explore the field of research in academic support and embark on developing individual research plans and a broad agenda for future research.

**Publications**

Two publications related to ASLA programming were submitted this year; one is in press and one under review:

- Micari, M., & Calkins, S. (Under review.) “Is It OK to Ask? The Impact of Instructor Openness to Questions on Student Help-Seeking and Academic Outcomes.” *Submitted to Active Learning in Higher Education.*

Additionally, Marina Micari, Director of ASLA, has recently co-authored *Coming Home Your Way: Understanding University Student Intercultural Reentry* (Routledge, 2018).

**New Projects**

Key projects currently underway include

- A series of **short videos**, produced in collaboration with NUIT, designed to help students adjust to academic life at Northwestern and to adopt healthy and effective learning and studying practices. These videos can be embedded into websites, sent directly to incoming and current students, and integrated into first-year seminars and other courses.
- A series of events, titled **Navigating Northwestern Academics**, to engage students in discussion and reflection with peers, faculty, and staff, around their approaches to learning at Northwestern. This will run in collaboration with Residential Academic Initiatives, Health Professions Advising, Multicultural Student Affairs, and other campus partners.
- A **social media and outreach campaign**, to reach students through an additional avenue and continue to build a culture of help-seeking and normalization of academic struggle. A dedicated student committee will be working closely with us on this project.

**Academic Resource Center Project**

As an outgrowth of the ASLA development and launch, the Searle Center, Weinberg College, and the Libraries have developed a proposal to create a physical hub for academic support, the Academic Resource Center (ARC) to be located in the Main Library 2 North space. ASLA has played and will continue to play a leadership role in ARC development. This proposal received initial approval from Provost Hollaway in spring 2018, and planning is underway. The vision is a space which would house several units providing academic support, in addition to student study and collaboration space, and a front desk area where students could get information about a
whole range of academic support at the University. The vision additionally incorporates a collaborative network of academic-support providers on campus who come together regularly to ensure well-aligned missions, programming, assessments, and so forth.

In tandem with the development of the ARC, we plan to work with Global Marketing on a revamp of the Academic Resource Portal (see above), to make it more navigable and useful for students.

Comments from participants:

“It’s a friendly environment where we all lift each other so we can all collectively do our best.

“I learned to not give up and to look for help if I’m having a hard time.

“It’s a relaxed setting that allows enough comfort to ask all your questions.”
IV. Grant Activity

The Searle Center is a research-practice partnership and learning systems organization. We ground all our work in research, build projects from a foundation of evidence, and infuse research, assessment and evaluation in every program in order to learn, improve, and maximize the impact of our work. Concomitant it is necessary to be at the cutting edge, creating the new knowledge in our fields, partnering with experts, and exploring new ideas and approaches. This scholarship and innovation requires funding, and the Searle Center has been very active over the past two years in three domains - leading our own proposal efforts; partnering across Northwestern, the nation, and abroad; and supporting Northwestern faculty in their work.

Overall, we worked on 46 proposals, worth more than $75m, with more than 100 collaborators all across Northwestern, the United States, and abroad. We estimate that about 50% were funded, for ~$40m, with a number still pending. Our grant activity is broken into three categories (1) Searle Center grant activity, (2) Partnership Grant Activity and (3) Supporting Grant Activity.

SEARLE CENTER GRANT ACTIVITY

The Searle Center seeks funding in areas deeply aligned with our mission to advance learning and teaching at Northwestern and more broadly. The central purpose of these proposed projects this year have included: Advancing inclusive teaching; pedagogical professional development for graduate students, postdocs, and faculty; creating more access for and success in higher education for underrepresented minorities and women in STEM; developing global competencies across five institutions in the Middle East; creating inclusive research.
environments at Northwestern and across a national network of universities; developing a national research agenda for undergraduate academic support; a national digital professional development in teaching and career preparation program for postdocs; among others. We wrote 20 proposals seeking more than $42m (Searle’s portion is $7m) for projects in which Searle has a central intellectual role. Of these, 14 were funded for a total of $18.3m, (Searle’s portion is $2.8m). Several were declined, but we are finalists for two more large projects totalling an additional $22m, of which Searle’s portion would potentially be an additional $3.4m.

**NEW: NSF Inclusive Teaching:**

$3m, Searle portion $1.3m. The NSF IUSE Inclusive Learning and Teaching in Undergraduate STEM Instruction: Northwestern leads a consortium of eight institutions that will create and deliver content that demonstrably improves the awareness, confidence, and ability of PhDs, postdocs, and early career-faculty to create inclusive STEM learning environments for their students. The project’s pedagogical approach relies significantly on theatrical and improvisational dramatization to build awareness and personal growth in social identity, power and positionality, and will deliver content, curriculum and discussions through multiple online and in-person modes. The project will build on the expertise within national networks, including community college networks, to develop a comprehensive virtual and in-person professional development program that will prepare, at a national scale, future and early career faculty to teach inclusively. To do this, the project will build and sustain a diverse network of institutions through learning communities of trained facilitators to advance inclusive learning and teaching on their campuses.

**NEW: NSF INCLUDES Alliance:**

$10m, Searle portion $270k. The National Alliance for Inclusive and Diverse STEM Faculty (NAIDSF), led by APLU and CIRTL, seeks to cultivate a more diverse and inclusive STEM faculty nationwide and thereby attract and enable more underrepresented students to succeed in STEM fields. NAIDSF will pursue three mutually reinforcing strategic goals all focused on faculty. The ultimate aim is attracting more underrepresented students—women, members of minority racial and ethnic groups, persons with disabilities, and those from low socioeconomic backgrounds—into STEM college programs, assist them to stay in these programs, and help them graduate and succeed in a modern STEM workforce. Northwestern joins the lead institutions, as well as Iowa State University; the University of California, Los Angeles; the University of Texas at El Paso; and the University of Georgia. These universities are partnering with dozens of other universities, two-year colleges and organizations across the country to scale practices aimed at diversifying the nation’s STEM college educators and grounding them in inclusive teaching practices.

**NEW: NIH IPERT Postdoc Academy:**

$2m, Searle portion $675k. The goal of project is to create a comprehensive digital and in-person professional
development program called the Postdoc Academy, available to postdocs nationwide. The Postdoc Academy blends interactive online and in-person content built on the National Postdoctoral Association (NPA) competencies to support skill development throughout postdoc training, from orientation to the next career step. Content uses inclusive, active-learning approaches and is delivered flexibly to be a resource for the postdoc audience directly as well as the postdoc offices and associations across the country that support postdocs. Delivery will include free Massive Open Online Courses, open educational materials, in-person workshops, and supported learning communities.

**Enhancing Critical Thinking in STEM Disciplines: A Faculty Development Model (NSF: Course, Curriculum and Laboratory Improvement (CCLI))**

This project involved a collaboration between the Searle Center and the City Colleges of Chicago (CCC) to design, pilot and study a Science, Technology, Engineering, and Mathematics (STEM) faculty development program focused on improving higher order learning outcomes in STEM students by introducing activities to promote critical thinking and developing course-specific assessments of critical thinking. Sixteen STEM faculty – 9 faculty from CCC and 7 from Northwestern completed the program. We are continuing to analyze data on changes in faculty conceptions of critical thinking, and assessment. We are currently preparing a manuscript to be submitted to the Journal of Community College Research and Practice.

**Student Conceptions of International Experience (SCIE):**

To better understand students’ international experience through study abroad, the Buffett Institute for Global Studies and the Searle Center launched a collaborative project in the summer of 2007 called the Student Conceptions of International Experience (SCIE). Based on results of a phenomenographic study of undergraduate students’ conceptions of international experience, a 70 item survey instrument to assess students’ conceptions of and approaches to international experience was developed. The new 45 item survey was piloted with 646 students from 7 US universities in 2013. A latent profile analysis conducted by our collaborator, Dr. Fred Bryant from Loyola University Chicago, found that the new survey has 3 valid and reliable subscales for ‘interacting,’ ‘participating’ and ‘embracing’ with a total of 16 questions. Survey questions for the ‘observing’ subscale were not reliable. A manuscript on the validation study was recently published in the International Journal of Intercultural Relations.

**PARTNERSHIP GRANT ACTIVITY**

The Searle Center partners with individual PI’s, research groups, and centers at Northwestern and partners across the US and abroad to support learning and teaching generally. Projects include collaborating on education, curriculum development, professional development, assessment and evaluation, inclusive pedagogy, social equity
training, research mentorship, and others. In these partnerships, Searle plays a major supporting role, and has direct ongoing programmatic support. In training programs for graduate students, postdocs and early career faculty, for example, we are funded to run workshops, evaluate participant outcomes, and explore collaborations and the growth of interdisciplinarity. We partnered on 9 proposals seeking a total of $32m, with a Searle portion of $1.4m. To date, four have been funded for $16.4m, with a Searle portion of $600k.

CuBISM: Computationally Based Imaging Structure of Materials (NSF; Ken Shull PI)

CuBISM is a five-year interdisciplinary research and educational program at the intersection of science and art. Funded by the National Science Foundation’s Partnerships for International Research and Education (PIRE) program, the project leverages expertise and resources from Northwestern University, the Art Institute of Chicago, and leading cultural heritage institutes in the Netherlands, France, and Italy. Currently, the program is supporting seven PhD students at various stages in their studies. The Searle Center has been involved in all aspects of assessment and evaluation in this program. Our research associates conducted interviews with the current CuBISM students. We also evaluated a new course MSE 495: Polymers in Art and Technology taught by Kenneth Shull and designed specifically for the CuBISM cohort. Three of the CuBISM students participated in an International Research Experience for U.S.-based Students (IRES), funded by a grant from the National Science Foundation (IRES 1460143). Our center created and analyzed two evaluations for this program. The IRES 2018 program culminated with a workshop, which also brought together all the CuBISM students, faculty, and the Dutch collaborators. Katya Bitkin attended the workshop and ran an evaluation, which will inform the future program workshops planned to be held annually.

Curriculum Reform in Biology (Howard Hughes Medical Institute (HHMI; Gregory Beitel PI)

Funded by the Howard Hughes Medical Institute, this project aimed to reform the undergraduate biological science training at Northwestern by emphasizing inquiry-based learning both in lecture and laboratory courses, introducing students to laboratory research in their freshman year and altering the course sequence. The Searle Center was involved in all aspects of the program from faculty and teaching assistant training, program design for
BioEXCEL and NU Bioscientist programs to assessment and evaluation. Two manuscripts have been published in the Journal of College Science Teaching and Innovative Higher Education and a third has just been published in Mentoring and Tutoring. A fourth manuscript has is under review by CBE Biology Life Science Education.

## Doctoral and Post Training Program Evaluation

Northwestern has more NIH T32, T90 and K12 grants training grants, and training grants funded by private foundations than any other university in the nation, representing tens of millions of funding annually. These awards are highly competitive and contribute to Northwestern’s reputation as a national leader in graduate and post graduate training. The Center currently evaluates 14 doctoral and postdoctoral T32 training grant programs including Biophysics, Biotechnology, Endocrinology, Cancer Behavioral Science, Chemistry of Life Processes, Information Storage, Mechanisms of Aging and Dementia (MAD), Motor Control, Neuroscience of Human Cognition, Physical Therapy, Reproductive Medicine (K12 BIRWCH) and Research Training in Cardiovascular Epidemiology and Prevention. During the upcoming academic year we will conduct focus groups for Northwestern’s Clinical and Translational Sciences Institute’s TLI, KL2 and SIP training programs. We supported a competing renewal for Biotechnology and new applications for Magnetic Resonance Imaging and Reproductive Science, Medicine, and Technology. We also supported a K12 AHRQ proposal for the ACCELERAT program, a proposal for a Northwestern Injury Control Research Center to CDC, and an NIH D43 proposal “Building capacity for patient-centered outcomes research to improve the quality and impact of HIV care in Tanzania”.

## Enhancing and Expanding Experiential Learning Modules across Disciplines and Institutions (NSF IUSE: EHR - ; Gloria Kim, Biomedical Engineering PI)

This 3-year, exploratory project in Engaged Student Learning brings together engineering faculty members from Northwestern and the University of Florida with the aim of supporting the adaptation, implementation, and dissemination of best practices in experiential learning in a 3-quarter course sequence in Northwestern’s Department of Biomedical Engineering and a two-course sequence in Florida's Department of Electrical and Computer Engineering. The Searle Center has been involved in all aspects of assessment and evaluation in this project. Dr Mary Beth Finch, a postdoc who is working on the project has observed courses, interviewed students, faculty and teaching assistants and surveyed students to assess the strengths and weaknesses of Northwestern’s BMED_ENG 305/306/307 course sequence in terms of the “How People Learn” framework. A poster on the project was presented at the 2018 Annual Conference of the Society for Engineering Education in Salt Lake City.

## Northwestern University-Patient- Centered Intervention and
**Engagement Training K12 Faculty Scholars Training Program (NU-PATIENT)**

This Agency for Healthcare Research and Quality (AHRQ) funded NU-PATIENT K12 program is designed to support the early research career development of junior faculty who are engaged in patient-centered outcomes and comparative effectiveness research. The Searle Center has consulted on evaluation of trainee competencies and has conducted annual focus groups.

**PIRE: NanoRING**

(NSF; Matthew Grayson PI) Searle Center staff developed pre, formative, and post surveys for students participating in the NSF-funded “NanoRING” program which is a 3-year grant program based out of the Materials Research Center and takes place in Munich. The surveys yielded data about the students’ research experiences in materials nanotechnology and the program’s potential impacts in areas such as students’ confidence in decision-making and their understanding of STEM career options.

**SUPPORTING GRANT ACTIVITY**

We support faculty in developing NSF Career proposals, training grant proposals, and generally in incorporating educational innovation, evaluation, assessments and broader impacts in their grant proposals. This past year we worked on 20 proposals, seeking more than $30m in support. On these efforts, we are not written in with direct support, and so post-award, we work with individual programs and investigators to support their efforts. These include:

- 8 NSF Early CAREER awards
- 2 NSF-Simons Research Center awards
- 4 other NSF awards (IGE, CDSE, IUSE, NRT)
- 3 NIH T32 (training grant) awards
- 2 NIH K12 awards
- 2 other NIH awards (R25, D43)
- 1 CDC award
- 6 awards from other agencies and foundations (Northwestern, NEH, American Society of Nephrology, Peterson, Pedersen, US Consulate in Jerusalem)

**NEW: Broader Impacts Forum**

In collaboration with the the Office for Research, the Office of Research Development, the Office of Community Education Partnerships, and Science in Society, the Searle Center co-sponsored The Broader Impacts Forum to
support faculty aiming to use their research to benefit society and contribute to the achievements of important societal outcomes. The day-long forum took place on February 5, 2018, and brought together Northwestern researchers across disciplines and community partners to share best practices, leverage resources, and build community around broader impacts of research. Denise Drane co-chaired the Broader Impacts Forum Organizing Committee, and Susanna Calkins and Sharisse Grannan also served on the Committee. The forum's goals aligned with our own work (described in “VII. Service” below) to collaborate with faculty on grant proposal development and co-design broader impacts, education plans, and evaluation sections of proposals. See Appendix 12.4 for the agenda and Appendix 12.5 for the list of community participants.

**Innovative Teaching Grants:**

This year we awarded two innovative teaching grants, which are designed to support faculty seeking to innovate in their teaching contexts. We consulted with each individual or team to help them develop learning objectives and assessment/evaluation methods. They will report on their findings and facilitate a roundtable or similar sessions. Awards went to:

- **Jake Smith (Radio-TV-Film/SoC):** This grant supports Professor Smith in his development of a re-imagined course, newly titled, “Musical Media: Music Video, Film Musicals, and Music Video Games.” The grant helped him purchase music video games, to help students make important connections between popular music and media production while exploring the intersections with popular music, visual media and media production.

- **Chyi Chung, Elisa Baena, Denise Bouras (Spanish and Portuguese, WCAS):** This grant is designed to help the team analyze the current standards in the language curriculum of the Department of Spanish and Portuguese by first identifying student language proficiency upon termination of each course, given current course goals and expectations. After testing a sample pool of students from each course level on their oral and listening skills by using the ACTFL Oral Proficiency Interview (Computer) and the ACTFL Listening Proficiency Test, the team will identify and establish different proficiency levels with the overall goal of guiding our students in the progressive (and realistic) development of their language skills. In this way, upon termination of their coursework at Northwestern, students will be better be able to communicate and interact effectively in Spanish in real-world contexts.
V. Research, Assessment & Evaluation

Research, assessment and evaluation work is central to the Searle Center’s mission of advancing learning and teaching at Northwestern and beyond. In addition to conducting our own research, we work with Northwestern faculty to enhance assessment within courses, and collaborate with Northwestern faculty and faculty from other institutions on programs and projects.

**RESEARCH, ASSESSMENT AND EVALUATION HIGHLIGHTS**

The 2017-18 year has been a very successful year for our research, assessment and evaluation team with new projects in fields of inquiry, new collaborations, and great success in the area of grant funding. Sharisse Grannon is leading a Searle Center study on how faculty in different disciplines understand creativity in both their teaching and research. This is the first time that the Searle Center has conducted research in this area and we hope that the findings will lead to new workshops and initiatives around creativity at Northwestern. We are also investigating the impact of several other university-level initiatives, including evaluations of the Book for Cats program, a pilot use of an online feedback tool (BluePulse), and other program-specific innovations.

**NEW RESEARCH ASSESSMENT AND EVALUATION PROJECTS**

**NEW: Books for Cats**

The Director Undergraduate Education in the Office of the Provost partnered with the Searle Center in order to gain a deeper understanding of the student experience of the Books for Cats program. We were interested in understanding students’ perceptions of the program and of the book allowance aspect of financial aid, their perceptions of the process, and their decision-making with respect to the program. We conducted two focus groups—one with students who participated in the study and one with students who were eligible, but did not participate. We learned that Books for Cats evokes positive feelings and students find it to be user-friendly. Textbooks are perceived as critical to student learning and success, as they allow students to review concepts and practice certain types of problems or exercises at their own pace. The findings pointed to needs for further
clarification in communications about certain aspects of the program, and we made recommendations for specific ways to expand the program based upon student input.

**NEW: BluePulse Pilot**

BluePulse by eXplorance is a student feedback system that allows students to send anonymous formative feedback to their instructors from their mobile devices throughout the duration of a course. The feedback is two-way: 1) Instructors can pose open-and closed-ended questions to the students at any point in the quarter, soliciting feedback about the students’ experience of the course and their learning, and 2) students can pose anonymous questions or send anonymous feedback to the instructor at any point in the quarter (similar to a private tweet). In Summer 2018, we recruited 3 faculty members from different disciplines, course types and college/schools to try out the BluePulse formative feedback option in their courses. Faculty participation involved: (1) Viewing a short Blue Pulse webinar on their own time; (2) Answering a few questions about their experience with technology and learning; (3) Using the BluePulse tool at least 3 times in the quarter (meaning that they would pose at least three simple questions to their students to get feedback around issues and topics that are valuable to them.); (4) Participating in a debrief conversation (interview) after the term is over. The intent of this study is to better understand the capabilities of the tool and its impact on student learning and faculty teaching. Instructors were encouraged to pose a range of question types throughout the quarter, focusing on getting feedback about their teaching and instructional practices, course materials, and the student experience of learning. Through surveys and interviews we gathered pilot information about what faculty did with student feedback in real time. Additionally we collected survey data from students (about inclusion, help-seeking, connectedness; lack of connection to Canvas). We plan to expand the pilot in Fall 2018.

**NEW: Evaluation of Introductory Biological Lab Sequences**

A Professor of Instruction in Biological Sciences asked evaluators at the Searle Center to assist in deepening his understanding of the student and TA experience in the sequential lab courses 220, 221, and 222. More specifically, he is interested understanding their perspectives on and experiences of collaboration in the lab. He and his colleagues are exploring the construction of new active learning spaces for their labs. The purpose of the new spaces is primarily to create a learning environment that better fosters collaboration. Secondarily, the spaces would be designed for more efficiency and equity. Through focus groups, we captured students’ and TAs’ thoughts on the physical design of the current lab space and how it relates to their learning, as well as how other course components support their learning. We also addressed the topic of project ownership, and began to explore the potential relationships between ownership and collaboration. These focus groups were part of a larger mixed-methods study (involving observations and surveys as well) designed ultimately to gauge the impact of the new active learning lab spaces on student learning. Focus group findings inspired the instructor to implement changes; for example, he plans to modify final presentations assignments and certain TA roles.
NEW: Fostering and Assessing Creativity at Northwestern University

Sharisse Grannan (PI) and Susanna Calkins (co-PI) designed and have begun implementing a study in order to understand the perspectives and practices of faculty from a variety of disciplinary backgrounds who have some level of interest and investment in fostering creativity in their students and assessing students’ creative processes or products. We seek to understand, for example, whether creativity in their contexts is the goal or a means to a goal, which dimensions of creativity they most emphasize, the criteria they use when assessing creative work, and the methods by which they assess it. Our findings, including case studies from a small subset of faculty actively supporting students’ creativity, will better enable us to help faculty at Northwestern and beyond re-conceptualize and/or expand their understanding of creativity, examine what creativity might look like for their students, and how they can assess creativity as both a process and a product.

NEW: Health Services and Outcomes Research Graduate Program, Executive Hybrid Model

This year, the Director of the Health Services and Outcomes Research Graduate Program returned to Searle Center staff and asked us to conduct a tracking study to help deepen the faculty and staff understanding of what is working well and what could be done to continue improving the Executive Hybrid program experience. We consulted her team in the development and analysis of a survey and we moderated a focus group on April 25, 2018. As with last year, findings from this year’s report are informing specific refinements to the program, such as rethinking the sequencing of certain courses to increase student learning potential.

NEW: The Impact of Small Group Analysis on Teaching Consultants’ Conceptions and Approaches to Teaching

Susanna Calkins and Muveddet Harris are conducting a study to examine the impact of Small Group Analysis (SGAs) on Teaching Consultants’ (TCs) conceptions and approaches to teaching. The purpose of this ongoing study is to examine the impact of SGAs on the TCs (doctoral students) who conduct them at Northwestern University. The study focuses on the question: What impact, if any, does conducting SGAs have on TCs’ approaches to teaching and their conceptions of student learning? The inquiry considers what TCs learn from SGAs and the extent to which they change their instructional practices in response to the data/experience they have obtained by conducting SGAs. We hypothesize that the process of conducting SGAs influences how TCs think about teaching and learning, either currently or in their future courses, in terms of how they will design the courses, select materials and content, interact with and collect feedback from their students.

NEW: Student Experience in the Master of Biotechnology Program

Program administrators asked Searle Center to assist in deepening their understanding of the student experience.
in the Master of Biotechnology Program. Specifically, they are interested in learning the ways in which the program meets—and does not meet—student expectations coming into the program; the ways in which students value program components, and particularly the professional development training opportunities; and how students could better track their own progress throughout the program. We designed a multi-year evaluation, which began with three focus groups in Spring 2018. Discussions with faculty already suggest that the findings will be used to make modifications and additions to the program for the coming year. We are currently developing a survey for first and second-year students to understand the prevalence and depth of perspectives uncovered in the focus groups.

**ONGOING RESEARCH, ASSESSMENT AND EVALUATION PROJECTS**

**CIRTL Active Learning Workshops Evaluation**

Synchronous online workshops piloted through CIRTL, called Active Learning Workshops, are designed to help graduate students and postdocs develop transferable skills that will enable their success in a diverse set of biomedical careers. Postdocs and graduate students from 46 universities have participated in workshops on the following topics: Creating Effective Learning Communities; Developing Work/Life Resilience; Writing an Effective Teaching Philosophy Statement; and Creating and Owning Your IDP. We developed a 2-phased, mixed-methods evaluation designed to achieve 3 main goals: 1) understand the degree of change in participants’ behaviors, perceptions, and attitudes, and what participants attribute this change or lack of change to; 2) obtain critical feedback on the workshop model in order to increase the potential for learning and change; and 3) begin to understand participants’ perspectives of their own socialization and the culture (e.g. faculty mentor, department, school/college, institution) that defines their engagement in professional development activities. Findings support a workshop model that integrates skills application with deliberate moments of reflection and community building. A manuscript is currently under review by *Innovative Higher Education*.

**Critical Thinking and Calculus**

In collaboration with a postdoctoral lecturer in the Department of Mathematics, we conducted a study to understand whether peer feedback and reflective activities can enhance critical thinking in a calculus course. Specifically, the quasi-experimental design study allowed us to track positive shifts in perceptions of the importance of multiple perspectives in mathematical thinking, the role of peers in their learning, and the value of clear communication in mathematics. We also saw an increased ability to communicate mathematical arguments. These data could inform decisions related to teaching methods and assessments in calculus sequences. A manuscript is currently under review by *PRIMUS*, a journal of mathematical education and pedagogy.
Evaluation of the Impact of University Teaching Awards at Northwestern

The aim of this study is to understand the overall impact that Northwestern University Teaching Awards have on individual recipients and the role they have had in shaping and changing the climate of teaching and learning at Northwestern. We have been conducting interviews with faculty
VI. International Projects

The Searle Center supports Northwestern’s mission to heighten its global impact by engaging in partnerships and projects to enhance learning and teaching internationally. We are involved in a number of projects across the Middle East and Africa to enhance the learning of undergraduates, graduate students, faculty and refugees who are outside the formal education system.

HIGHLIGHTS

The 2017-18 academic year has seen continuation of long standing collaborations between An-Najah University in Palestine. The collaboration with An-Najah University is part of a program to enhance the teaching of computer science by developing university-industry partnerships that are focused on learning. After facilitating workshops at An-Najah on university-industry models for learning and the pedagogies to support those models in summer 2017, the Northwestern team provided feedback on innovative syllabi for new courses designed by An-Najah faculty. In June 2018, six senior undergraduate students from An-Najah University completed internships in labs at Northwestern. We believe that this is the first time that Northwestern has hosted visiting students from Palestine.

The Searle Center’s work in Africa extends to Nigeria where we are evaluating a NeuroAids training program lead by Northwestern’s Professor Babafemi Taiwo, and to Uganda where we will be evaluating the second NSF funded Joint US-Africa Materials Institute (JUAMI). We are excited to be welcoming Dr Michael Walimbwa from Makerere University as a collaborator on the evaluation of the institute.

Finally, our USAID funded research project on critical thinking and emotional intelligence training in non-formal education settings in the Middle East will come to a close in September 2018. After finding a positive impact of the program on a test of critical thinking and self-reported critical thinking and emotional intelligence in everyday life, we have been addressing research questions such as how
much training is required by teachers to implement the curriculum and whether girls benefit from training in a single gender learning environment. We presented our findings at an international meeting from September 11-12th hosted by the American University of Beirut.

**CURRENT PROJECTS**

**University-Industry Curriculum Development for the Information Technology Programs An-Najah University Palestine- Northwestern Collaboration (US Consulate in Jerusalem; Bennett Goldberg PI)**

Funded by a grant from the US Consulate General in Jerusalem, this program involves a collaboration between An-Najah University in Palestine, the Searle Center, the Segal Design Institute and faculty from the McCormick School of Engineering and Feinberg School of Medicine. The project aims to enhance the teaching of computer science at An-Najah University by creating a new Masters in Computer Science program with significant links to industry. Industry has been involved in course design and will provide internships and problems that students can work on in classes. In 2018, the Northwestern team (Nabil Alshurafa, Susanna Calkins and Bruce Ankenman) reviewed new course syllabi and Nabil Alshurafa played a significant role in having the new masters program accredited by the National Quality Assurance Commission in Palestine. A highlight of the 2018 year was a visit to Northwestern by 6 senior undergraduate computer science students from An-Najah to Northwestern for a 3-week summer internship. Five students worked in labs and a sixth worked in Harlan Wallach’s Media and Design Unit. The students also participated in seminars on Human Centered Design Thinking with Bruce Ankenman, seminars on Emotional Intelligence with Joe Holtgrieve and met with Sam Quaddoura from Zebra Technologies to discuss future directions of the computer science sector. A national conference on the project will be held at An-Najah in September 2018. Bennett Goldberg and Bruce Ankenman will give presentations on models of university industry collaborations for learning and how to create an ecosystem and university policies that

**Joint US-Africa Materials Institute (JUAMI) (NSF; Sossina Haile, Northwestern PI)**

JUAMI is an NSF funded collaboration between Northwestern, Columbia University and the University of Michigan that aims to: 1) help build research level scientific knowledge and capabilities in Materials Science in Africa 2) establish US-African collaborations 3) teach frontier research topics to young US and African researchers and 4) increase awareness and international communication.

The first JUAMI summer institute was held in Arusha, Tanzania from May 29th to June 10th 2016 was a great success, attracting graduate students in materials science from across Africa and the US. Northwestern has received NSF funding for a second JUAMI Materials Science Institute in December 2018 in Kampala, Uganda. Denise Drane evaluated the first institute and will evaluate the second. She will be partnering with Dr Michael
Walimbwa from the School of Education at Makerere University in Kampala to insure that the evaluation is as culturally sensitive as possible.

Testing the Effectiveness of Tailored Non-Formal Education Programs in the Middle East (USAID; Denise Drane, Northwestern PI)

UNESCO estimates that there are currently 7 million children and youth out of school across the Middle East, due largely to the Syrian refugee crisis. Educational needs of many of these children and youth are met through Non-formal Education (NFE), a mode of education that operates in cooperation with formal education systems to help children and youth transition successfully into formal education systems and to meet school-based learning and psychosocial needs related to conflict. This USAID funded research project is a collaboration between Northwestern, the University of Michigan and the Salam Institute. The first aim of the project was to assess attitudes about non-formal education and inclusion of critical thinking and emotional intelligence in school curricula. The second aim of the project was to develop and test a curriculum that can be used in non-formal education contexts in the Middle East to enhance critical thinking and emotional intelligence for children and youth. We partnered with the Arab Barometer to conduct nationally representative surveys about satisfaction with the education system overall, attitudes towards non-formal education, critical thinking and emotional intelligence in Algeria, Egypt, Tunisia, Morocco, Palestine, and Lebanon and Jordan. Satisfaction with the education system varied across countries. There was a strong consensus across countries that critical thinking and emotional intelligence skills are valuable and should be included in the school curriculum. In Phase 1 of the critical thinking and emotional literacy study, we tailored two existing curricula to for the Middle East and for easy use in non-formal settings. Teachers implemented the curricula in Jordan, Lebanon and Palestine with children, youth and young adults aged 12-27. After the curriculum, students reported using critical thinking in their everyday lives more often than they did on the pre-test. For example, on the pre-test, 52.0% reported that they compare ideas when thinking about a topic compared with 75.8% on the post-test (p<0.0001). Gains were statistically significant on 12 of the 14 items; think about possible results before taking action, identify options when facing a problem, listen to someone even though you disagree with them, have more than one source of information before making a decision, express your thoughts on a problem, give reasons for opinions.

In the area of emotional literacy, students also made gains on 6 of the 14 Developmental Assessment Profile items which measure emotional literacy. For example, on the pre-test,
38.8% of students selected “often” or “always” for “I deal with frustration in proper ways”, compared to 65.5% on the post-test (p<0.001). Statistically significant gains were made on; feeling good about myself, dealing with frustration overcoming challenges, accepting others, feeling in control of my life and avoiding things that are dangerous/unhealthy.

In Phase 2 of the study we are exploring whether the curriculum can be implemented effectively without specific teacher training, and examining whether girls make greater gains in single gender classes or mixed gender classes. We are currently analyzing the data.

Results of this study were shared at an international meeting at the American University of Beirut from September 11th-12th.

**Multidisciplinary NeuroAIDS Research Training to Improve HIV Outcomes (NIH; Babafemi Taiwo PI)**

The Searle Center is evaluating an NIH D43 training grant lead by Dr Babafemi Taiwo from the Feinberg School of Medicine at Northwestern. With 3.5 million people living with HIV (PLWH), Nigeria has the second highest HIV prevalence in the world. Brain disorders in people living with HIV (NeuroAIDS) include mental health disorders and neurocognitive or neurological impairment from direct or indirect effects of HIV. These disorders disrupt quality of life and economic productivity, and can shorten survival. This training program aims to expand the cadre of skilled, multidisciplinary researchers and outstanding research support staff, ensuring emergence of broad and integrated NeuroAIDS expertise at the University of Ibadan, Nigeria.
VII. Learning Communities

The Searle Center aims to connect faculty, staff, and postdocs across Northwestern who share interests in learning, teaching, assessment, and evaluation by creating learning communities who meet together regularly at the Searle Center to discuss new research and ideas and to share best practices. This year we launched a learning community focused on research and evaluation. We hope to establish a number of new learning communities in 2019.

RESEARCH AND EVALUATION LEARNING COMMUNITY

As part of the Searle Center’s mission to build capacity for evaluation and research among staff members, we host a Research and Evaluation Learning Community for the Northwestern community. In regular monthly meetings, we share best practices, stay current with research methodologies, and support one another in the specific challenges common to research and evaluation practice. Members of the community include staff from the Searle Center, Institutional Research, Student Affairs, Library Services, and other units. This year we discussed topics such as culturally sensitive evaluation, Likert scales and retrospective pre-post assessment.
VIII. Services

The Searle Center provides a range of services for faculty, postdocs, and graduate student instructors and the broader Northwestern community to enhance learning and teaching across the University. Services include departmental and informational workshops, end of term focus groups, grant writing assistance, individual consultations with faculty and graduate students, small group analysis and structured observations of teaching. Other services include the Robert E. Menges Library that is located at the Searle Center and the Northwestern Assessment Repository.

SERVICES FOR FACULTY, GRADUATE STUDENTS, POSTDOCS, & INSTRUCTORS

Departmental Workshops and Information Sessions: The Searle Center responds to the specific teaching and learning needs of departments and programs with tailored workshops and information sessions. Graduate and Postdoctoral Learning led 2 requested workshops in departments; one in Communication Sciences and Disorders and one in the Driskill Graduate Program. Graduate and Postdoctoral Learning also attended six information sessions hosted by departments and programs: Northwestern’s Interdisciplinary Neurology (NUIN) Program, Electrical Science and Applied Mathematics, two for the Office of Postdoctoral Affairs, and two for the Graduate School.

End-of-Term Focus Groups Course and Teacher Evaluations (CTECs) are not administered by the university in courses with fewer than 5 students out of concerns over anonymity and confidentiality, so the Searle Center offers CTEC-style focus groups for these instructors at the end of the term. A trained staff member or Teaching Consultant (TC) will pose questions drawn from the university CTEC and from Searle’s Small Group Analysis questionnaire, noting points of agreement and disagreement. After grades have been submitted, the staff member will share the student responses with the instructor. This year, we completed 8 end-of-term-focus groups.

Grant Writing Assistance

The Center collaborates with faculty to design and write the education and evaluation sections of proposals to government agencies such as NSF and NIH and private foundations such as the Sloan foundation. During the
2017-2018 academic year, the Searle Center assisted faculty a number of proposals. See Section IV on Research, Evaluation and Evaluation for more details

**Individual Consultations**

The Center provides individual consultations to faculty, graduate students, postdocs, and other instructors at the University, from Evanston, Chicago and NU-Q campuses. These can be carried out in conjunction with a Small Group Analysis or structured observation, or with those who choose to seek expertise in response to CTECs or other end-of-term course evaluations. They can also be stand-alone or ongoing meetings to engage in a variety of teaching, curriculum planning, and grant writing activities, for individuals or in campus units. Searle Center senior staff worked individually with approximately 150 faculty members this year, consulting on issues of teaching, assessment, and grant writing. We also met with graduate students not involved in Searle programs seeking feedback on teaching statements and job application materials.

**Small Group Analysis (SGA)**

The SGA is a confidential service provided by the Searle Center for Northwestern faculty, postdocs, and graduate students. During a Small Group Analysis (SGA), Center staff and trained graduate-student Teaching Consultants (TC) conduct a structured focus group with students in a class, and provide instructors with detailed and candid feedback during a follow-up meeting. The Searle Center employed 13 TCs this year. In 2017-2018, we conducted 25 SGAs for faculty and graduate instructors: 9 in fall 2017; 4 in winter 2018; 11 in spring 2018; and 1 in summer 2018. Ongoing feedback collected from the TCs indicates that they benefit professionally from conducting the SGAs, thinking more deeply about how students and faculty often have different expectations and understandings, and about strategies for enhancing student learning more broadly. Please refer to the TC conceptions project above for the work in progress for a systematic evaluation of the impact this year and in the upcoming academic year.

**Structured Observations (SOs) of Teaching for faculty/Teaching Observations for graduate students and postdocs**

In structured observations of teaching, Center staff and Graduate Teaching Fellows observe an instructor’s teaching, taking detailed notes about key areas, including student engagement, critical thinking, and effectiveness of teaching approaches, and follow up with the instructor afterwards. On occasion these observations may be combined with SGAs. In 2017-2018, we conducted 15 structured observations for faculty through our faculty initiatives and 15 for graduate students and postdocs through Graduate and Postdoctoral Learning.
SERVICES TO THE UNIVERSITY AND BROADER COMMUNITY

Robert E. Menges Library

The Center continues to add to and curate its 1000 holdings (books, articles, journals, and DVD/videos), providing faculty, staff, graduate students and postdoctoral fellows with easy access to the rich literature on teaching and learning. We have continued to donate materials to the University Archives including video recordings of University Teaching Series events, foundational materials and professional correspondence, so that they may be archived properly. In addition, we have continued to use substantial new technologies to the library (cameras, interactive whiteboard, and other specialized equipment) to communicate with our stakeholders and collaborators and to model effective integration of teaching and technology. Access the holdings through the main Searle Center website.

Searle Center Website

The Center website serves as a significant resource to the Northwestern community by offering information about specific programs and services, ongoing and new research projects, dissemination and publications, as well as specific resources related to learning and teaching in higher education. It links to the Undergraduate Academic Resource Portal and the Assessment of Student Learning website.

In 2017-2018, the website had a total of nearly 104,074 unique page views. We are currently in the process of updating the website to add sections on Diversity, Equity and Inclusion (as it relates to learning and teaching) and our International Initiatives.

Twitter Account

The Center’s twitter account (@searlelearning) promotes Center programs and events, disseminates news about our work, and links to compelling articles on teaching and learning in the media and scholarly publications. The Center tweets an average of twice a week and has garnered over 800 followers.
IX. Dissemination

Searle Center staff publish in peer-reviewed journals and present at national and international conference. Many publications and presentations are collaborations between Searle Center staff and Northwestern faculty.

ACADEMIC PUBLICATIONS & PRESENTATIONS

Publications September 2017-August 2018


In Press


**Under Review**


Harris, M. D., Inclusive Teaching in Multi-Cultural College Classroom: Engaging Diverse Students.

Harris, M. D., The Use of Formative Assessment to Promote Self-Regulated Learning.

Harris, M. D., Higher Education Assessments, Social Justice and Diversity: What can be Concluded from the Literature and What is a Way Forward?


Micari, M., & Calkins, S. “Is It OK to Ask? The Impact of Instructor Openness to Questions on Student Help-Seeking and Academic Outcomes.” Submitted to *Active Learning in Higher Education.*

Siefken, J., Grannan, S., and Calkins, S. “The Impact of Peer Assisted Reflection in a Year-Long Math Course.” Submitted to *PRIMUS.*


**Invited Talks and Presentations (External to Northwestern)**


Goldberg, B.B. (October 2017). Professional and Organizational Development Network in Higher Education. Montreal – MOOC-Centered Learning Communities for Graduate Student Professional Development


Goldberg, B.B. (October, 2017) Fenichel Colloquium, Department of Physics, University of Cincinnati. “Learning Sticks When Students Work Together: Fundamentals of Active and Collaborative Learning”

Goldberg, B.B. (October, 2017) Condensed Matter Colloquium, Department of Physics, University of Cincinnati, Incorporating 2D Materials with Micro-electromechanical Systems to Explore Strain Physics and Devices.


**Invited Talks and Presentations at Northwestern**


X. University Contributions & Outreach

Searle Staff members play leading roles in many university-wide committees, seeking to enhance learning and teaching in a variety of ways, and providing direction and expertise to senior administrators, faculty, students, and staff. Two notable committees include the Assessment and Accreditation Council and the Educational Technology Advisory Committee, as well as a newly envisioned CTEC committee.

ASSESSMENT AND ACCREDITATION COUNCIL

Since 2008, the Assessment and Accreditation Council, with the support of the Office of the Provost, has been working to develop the culture of assessment at Northwestern. This is a culture in which student learning—and the evidence of student learning—is an institutional priority, a faculty and instructor commitment, and a driver of change in learning and teaching at all levels.

Assessment of student learning outcomes is increasingly at the forefront of the work of faculty and administration, and has become a major priority the Higher Learning Commission, our accrediting agency. These internal and external forces motivate our work as we continue to implement the university-wide strategic plan for assessment. Part of the implementation of this plan involves updating the online Northwestern Assessment Repository which resides on our Assessment of Student Learning website. This resource tracks and reports assessment initiatives around the University at department, program, and school/unit levels. Bennett Goldberg chairs the Council, and Sharisse Grannan serves as Administrative Co-Chair. The committee includes representation from each school/college as well as from Institutional Research, the libraries, and Student Affairs. Over the past year, several working groups have developed approaches to support faculty and departments in creating and reporting on student learning outcomes, and implementing and reporting on the assessment of those learning outcomes. In addition, the council is working closely with the Registrar’s office to help faculty utilize the new online course catalog as a driver to create and publish student learning outcomes.

ETAC COMMITTEE

The Educational Technology Advisory Committee is an IT Governance advisory committee co-chaired by a senior member of the Office of the Provost and a senior member of Northwestern IT. It provides oversight and sets priorities for the use of educational technologies that support the learning and teaching environments at
Northwestern. The committee gathers information about how educational technology can enhance instruction, evaluates that information, and makes recommendations to the IT Governance Executive Committee. Bennett Goldberg co-chairs the committee with Peggy McCready, and Susanna Calkins serves as a member. Bennett and Peggy have worked with the Provost’s Office, IT, and Change Management to re-envision the ecosystem at Northwestern that reflects the coalescence of online tools, classrooms, learning technology, and all things digital in the general space of learning and teaching. Faculty and students now have facility with all these tools. We are developing a new committee structure that will support innovation, guide and prioritize sustainable platforms, and help faculty implement approaches that improve student learning and engagement.

**Reimagining CTECs: Committee formation:**

While the CTEC committee has been in existence for several decades, Bennett Goldberg, in collaboration with the four Searle directors, the Registrar and Office of the Provost, has formed an initiative to reimagine and restructure the student ratings system at the university. CTECs are currently under discussion in the Faculty Senate and the Associated Student Government and with the new electronic platform (Blue) successfully implemented, this was viewed as a good time to discuss them broadly at Northwestern. Student evaluation of faculty teaching has been integral to academics at Northwestern for more than a quarter century. Student feedback can help faculty improve instruction, can support faculty and institutional commitment to excellent teaching, and can assist students in choosing classes of interest aligned to their program of study. Yet, faculty, students and administrators often describe challenges associated with CTECs that limit their benefit and if solved, could improve their value. These include the different, conflicting uses for CTEC data, the multiple audiences that CTECs serve, the reliability and consistency of scales, the potential for bias, and concerns around how CTEC data are used and shared. Last winter, the University Registrar and Assistant Provost for Records Jaci Casazza and the Director of the Searle Center and Assistant Provost for Learning and Teaching Bennett Goldberg proposed and solicited input on a process for reimaging CTECs with the Provost Office, the Undergraduate Council, and other stakeholders. At the same time, the Faculty Senate passed a resolution to reexamine CTECs and the Associated Student Government submitted a white paper and new proposed questions to the standing CTEC administration committee. Pending Provost approval, the reimagining CTECs committee will be charged with examining our CTEC data, practice and use, and together with exploring best practices and current research, form a knowledge base. From this understanding, the committee will critically examine existing questions and practices, develop a system to pilot and test new questions, and ultimately recommend to the Provost new CTEC questions and practices.

**INTERNAL COMMITTEE AND BOARD WORK**

- Assessment and Accreditation Council: Bennett Goldberg, Chair; Sharisse Grannan (administrative co-chair): Susanna Calkins
- Bright Horizons Parental Advisory Committee: Kate Flom Derrick
- Broader Impacts Forum Planning Committee: Susanna Calkins, Denise Drane, Sharisse Grannan
• Community Engaged Learning University Steering Committee (Denise Drane, Nancy Ruggeri)
• Coordinated Service Center (CSC): Susanna Calkins
• CTEC Committee: Susanna Calkins, Bennett Goldberg, Nancy Ruggeri
• Educational Technologies Advisory Committee: Bennett Goldberg, co-chair; Susanna Calkins
• Faculty Open Classroom Initiative Planning Committee: Bennett Goldberg, Susanna Calkins, Muveddet Harris
• Inclusive Teaching Forum Planning Committee: Bennett Goldberg, Susanna Calkins, Nancy Ruggeri, Muveddet Harris
• Learning Analytics Committee: Bennett Goldberg, Denise Drane)
• Learning, Teaching, and Assessment Forum Planning Committee: Susanna Calkins, chair; Sharisse Grannan; Muveddet Harris
• Learning Management Systems Administrator Committee: Muveddet Harris
• Mellon Mays Undergraduate Fellowship Review Committee: Marina Micari
• MSHE Informational Interviews for potential and incoming students: Susanna Calkins
• Prosthetic Orthotic Center Education Program (NUPOC) Advisory Board: Susanna Calkins
• Office of the Provost Staff Engagement Committee: Nancy Ruggeri, Denise Drane
• Student Surveys Planning Group: Marina Micari
• TEACHx Day (Promoting Experiments in Teaching and Learning) Planning Committee: Subcommittee - Fixed Programming/Proposal Review Committee: Muveddet Harris
• Student Lifecycle Project Council: Bennett Goldberg, Marina Micari
• Undergraduate Council: Bennett Goldberg, Marina Micari
• Office of Undergraduate Research Advisory Council: Marina Micari
• Undergraduate Research Assistant Program Review Committee: Marina Micari
• Undergraduate Residential Experience Initiative: Marina Micari - Chair, Residence-Based Instruction and Academic Support Committee and member, Steering Committee; Sharisse Grannan - Assessment Committee
• University Diversity Council: Bennett Goldberg
• Women’s Center Advisory Board: Nancy Ruggeri
• Women’s Center Change Makers Advisory Board: Nancy Ruggeri

**EXTERNAL COMMITTEE AND BOARD WORK**

• Committee on Institutional Cooperation (CIC) Teaching Center Directors Group: Susanna Calkins, Denise Drane, Nancy Ruggeri, Bennett Goldberg
• Learning Spaces Collaboratory: Bennett Goldberg
• Center for the Integration of Research, Teaching and Learning, Leadership Team: Bennett Goldberg
• Center for the Integration of Research, Teaching and Learning (CIRTL), Cross-Network Operations Group (CNOG): Nancy Ruggeri
• Center for the Integration of Research, Teaching and Learning (CIRTL), Evaluation Instrument Working
Group: Lauren Woods

TEACHING

- MSCI 445 - Writing for Peer Review and Publication in Medicine [Winter, 2017] (Denise Drane)
- BIOL SCI (SPS) 170 - Introduction to Biology [Summer 2017] (Nancy Ruggeri, Lauren Woods)
- LING 480 - The Language of Teaching and Learning [Summer 2017, 2018] (Nancy Ruggeri)
- MED INF 498-DL - Capstone Project (MHI) [Winter 2018] (Muveddet Harris)
- MED INF 403-DL - Introduction to Medical Informatics (MHI) [Summer 2018] (Muveddet Harris)
- MSHE 405 - Learning and Teaching in Higher Education (SESP) [Winter 2018] (Susanna Calkins and Bennett Goldberg)
- MSHE 467 - History and Philosophy of Higher Education (SESP) [Spring 2018] (Susanna Calkins)
- MSLOC (SESP) - Capstone Advisor (Marina Micari)
- SESP 291 - Peer-Led Learning: Theory and Practice (Marina Micari)

PEER REVIEWING

- Active Learning in Higher Education: Marina Micari
- International Journal of Science Education: Marina Micari
- International Journal of Teaching and Learning in Higher Education: Susanna Calkins, Marina Micari
- Journal of Educational Research Review: Muveddet Harris
- Journal of Higher Education: Susanna Calkins
- Journal of STEM Education: Marina Micari
- Pediatrics: Denise Drane
- Professional & Organizational Development Conference Proposals: Denise Drane, Nancy Ruggeri, Lauren Woods
- Routledge Press: Susanna Calkins
- Science Education: Nancy Ruggeri
- Society for the Advancement of Biology Education (SABER): Nancy Ruggeri

PROFESSIONAL DEVELOPMENT ACTIVITIES

External

- ChangeMakers (Cohort 5), Women’s Center, Dreana Rubel
- Crucial Accountability (2-Day Training), Human Resources (Aug 2018), Susanna Calkins
- Community Dialogues, CIC and ASG (Bennett Goldberg, Muveddet Harris, Marina Micari, Nancy Ruggeri, Lauren Woods)
- Ivy+ Roundtable (Academic Support Units from the Ivy+ group), Yale University, October 2017 (Marina
Micari and Borislava Miltcheva)

- Northwestern Best Practices Forum, May 15, 2018 (Bennett Goldberg, Muveddet Harris)
- Northwestern Broader Impacts Forum (Susanna Calkins, Denise Drane, Bennett Goldberg, Muveddet Harris, Nancy Ruggeri, Lauren Woods)
- Professional and Organizational Development (POD) Conference. October 2017, Montréal, QC. (Susanna Calkins, Denise Drane, Bennett Goldberg, Nancy Ruggeri, Lauren Woods)
- TEACHx Day, Promoting Experiments in Teaching and Learning, May 23, 2018 (Susanna Calkins, Denise Drane, Kate Flom Derrick, Bennett Goldberg, Sharisse Grannan, Muveddet Harris, Nancy Ruggeri, Lauren Woods)
- Fifth Annual Student Learning Assessment Conference: Learning in the Co-Curriculum, June 26, 2018 (Bennett Goldberg, Sharisse Grannan, Muveddet Harris)
- Evaluating Training Programs, The Evaluators’ Institute, April 30-May 1, 2018, Evanston, IL. (Lauren Woods)
- Improv to Improve Science Communication & Teaching Practicum - Facilitator Training Institute, offered by the Center for Integrating Research, Teaching and Learning (CIRTL), July 9-11, 2018, Madison, WI. (Lauren Woods)

**Internal**

- Searle Center all-staff retreat: January 30, 2018 In this session, we discussed our center values and mission, as well as barriers we face in achieving our center goals.
XI. People

Searle Center Director: Bennett Goldberg

Administration Team
Remi Akinyemi, Project Coordinator
Dreana Rubel, Center Manager
Bianca McKenna, Nancy Nyambura, Chloe Butler-Jones, Lia Davis, Work Study Students

Faculty Initiatives Team
Susanna Calkins, Director
Sharisse Grannan, Assessment Associate
Muveddet Harris, Program Associate
Omari Keeles*, Assistant Director for Diversity, Equity, and Inclusion

Research and Evaluation Team
Denise Drane, Director
Samar Abboushi, International Research Consultant
Remi Akinyemi, Project Coordinator
Ekatarina (Katya) Bitkin, Evaluation Associate
Mary Beth Finch, Research Associate
Sharisse Grannan, Assessment Associate
Michael Richer, Temporary Program Coordinator
Sara Woods, Research Associate

Academic Support & Learning Advancement Team
Marina Micari, Director
Jamila Anderson, Program Manager
Una McGeough, Program Manager
Borislava Miltcheva, Program Manager
Ashley Truong, Program Assistant*
Graduate and Postdoctoral Learning Team

Nancy Ruggeri, Director
Kate Flom Derrick, Senior Program Coordinator
Lauren Woods, CIRTL Postdoctoral Associate / Assistant Director of CIRTL at Northwestern*

*Joined during 2017–2018

Graduate Teaching Fellows (GTFs) 2017-18

Anne Boemler (English)
Matthew Brauer (French & Italian)
Joel Harrison (Religious Studies)
Angela Leone (Rhetoric & Public Culture)
Carmen Lin (NUIN)
Christina LoTiempo (Political Science)
Jordan Nelson (Chemistry)
Grace Kessler Overbeke (Theatre & Drama)
Miriam Piilonen (Music Theory & Cognition)
Lee Robison (Chemistry)
Laura Shanahan (NUIN)
Leigh Soares (History)

Graduate Teaching Mentors (GTMrs) 2017-18

Sean Harvey (History)
Matt June (History graduate)
Amanda Kleintop (History)
Danielle Perszyk (Psychology)
Sarah Stainbrook (IBiS)
Curtis Wang (Electrical Engineering and Computer Science)

Graduate Teaching Consultants (TCs)

Benjamin Aspray (Screen Cultures)
Arjada Bardhi (Economics)
Anne Lisbet Boemler (English)
Tracy Dobie (Learning Sciences)
Matthew June (History)
Angela Christine Leone (Rhetoric)
Christina Frances Lotempio (Political Science)
Saoirse McSharry (Biological Sciences)
Rohit Ramanathan (Mechanical Engineering)
Michelle E. Shaw (Rhetoric and Public Culture)
Zachary Sommers (Sociology)
Tawny Spinelli (Clinical Psychology)
Kristina Marie Ward (Audiology)

New Teaching Assistant Conference (NTAC) Workshop Leaders

Maria Dikcis (English)
Laura Feldmeyer (Theatre and Drama)
J. Sophia Fu (Media, Technology, and Society)
Katherine Harmon (Applied Physics)
Olivia Healy (Human Development and Social Policy)
Amanda Kleintop (History)
Sasha Klyachkina (Political Science)
Matthew Leisten (Economics)
Kylee Morrison (Microbiology-Immunology DGP)
Rohit Ramanathan (Materials Science & Engineering)
Daniel Shams (Biological Sciences)
Michelle Shaw (Rhetoric and Public Culture)
Katherine Simeon (Communication Sciences and Disorders)
Tawny Spinelli (Clinical Psychology)
Shuyi Weng (Mathematics)
Uzma Wilson (Communication Sciences and Disorders)
Sarah White (Learning Sciences)
Zoe Zhang (Mechanical Engineering)

MOOC-Centered Learning Community Peer Leaders

Katherine Harmon (Applied Physics)
Kylee Morrison (Microbiology-Immunology DGP)
James Schwabacher (Chemistry)
TEACHING CERTIFICATE PROGRAM (TCP) PARTICIPANTS

Alvita Akiboh  
Stephen Antos  
Melike Arslan  
Sameer Ashaie  
Connor Bain  
Niamba Baskerville  
Megan Beck  
Cynthia Blanco  
Abigail Bruxvoort  
Ivan Bujan  
Andrea Busby  
Ethan Busby  
Arturo Chang Quiroz  
Qishui Chen  
Elizabeth Derderian  
Maria Dikcis  
Ilana Emmett  
Adam Eshein  
Maziyar Faridi  
Menglu Gao  
Chen He  
Emily Hittner  
Ava Jackson  
Harriette Kevill-Davies  
Joshua Kissel  
Elizabeth Laurie  
Erik Lovell  
Maite Marciano  
Blaze Marpet  
Shaunna McLeod  
Saoirse McSharry  
Margaret Meadows  
Anna Michelson  
Christopher Mizzi  
Roger Molto Pallares  
Caitlin Monroe  
Kylee Morrison  
Rachel Moss  
Mariana Oliver  
Sian Olson Dowis  
Rebecca Palmer  
Sarah Pila  
Jessica Pouchet  
Bethany Powell  
Rohit Ramanathan  
Wenjie Ren  
Jeremy Ritzert  
Amanda Roca  
Brita Schneiders  
Katherine Simeon  
Tawny Spinelli  
Amy Swanson  
Rachel Wallner  
Sarah White  
Kevin Wilkins  
Ting Xiao  
Guangshuo Yang  
Andrew Zimmerman

SEARLE TEACHING-AS-RESEARCH (STAR) PROGRAM PARTICIPANTS

Bain, Connor (Computer Science and Learning Sciences/School of Education and Social Policy)  
Project Title: Connecting Programming and Thinking  
Faculty Mentor: Uri Wilensky, Learning Sciences and Computer Sciences

Boamah, Mavis (Chemistry/Weinberg College of Arts and Sciences)  
Project Title: Correlation between Math Skills and Performance in Undergraduate Physical Chemistry  
Faculty Mentor: Franz Geiger, Chemistry

Finch, Jessamine (Plant Biology and Conservation/Weinberg College of Arts and Sciences)  
Project Title: Blended botany: Evaluating the impact of a class-generated online study tool in a plant identification course  
Faculty Mentor: Nyree Zerega, Program in Plant Biology and Conservation
McSharry, Saoirse (Molecular Biosciences/IBiS/Weinberg College of Arts and Sciences)

Project Title: *Familiar media sources increase biology self-efficacy scores in non-major students*

Powers-Riggs, Natalia (Chemistry/Weinberg College of Arts and Sciences)

Project Title: *Peer Review in General Chemistry Lab Reports*

Faculty Mentor: Stephanie Knezz, Chemistry

Schwabacher, James (Chemistry/Weinberg College of Arts and Sciences)

Project Title: *The effects of temporal focus on students’ motivation to learn science*
12.1 FACULTY INITIATIVES DATA

12.1 Table 1. Short schedule of the Inclusive Teaching Forum 2018

<table>
<thead>
<tr>
<th>Plenary (9:30 AM - 10:30 AM)</th>
<th>Interactive Workshop (12:45 PM - 2:00 PM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plenary: Making Excellence Inclusive in Challenging Times: Diversity Consideration for the Classroom and Beyond</td>
<td>Interactive Workshop: Realizing a More Inclusive Pedagogy: Race, Identity, and Engagement in Diverse College Classrooms.</td>
</tr>
<tr>
<td>Frank Tuitt Ed.D., Sr. Advisor to the Chancellor and Provost on Diversity and Inclusion; Professor of Higher Education, University of Denver</td>
<td>Frank Tuitt Ed.D., Sr. Advisor to the Chancellor and Provost on Diversity and Inclusion; Professor of Higher Education, University of Denver</td>
</tr>
<tr>
<td>Louis Room</td>
<td>Louis Room</td>
</tr>
</tbody>
</table>

Concurrent Workshops and Roundtables (11:00 AM - 12:00 PM)

<table>
<thead>
<tr>
<th>A. Designing and Delivering Courses with Social Inequities and Diversity Learning Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Alba Cutler, Assistant Professor of English, Department of English, WCAS</td>
</tr>
<tr>
<td>Annette D’Onofrio, Assistant Professor, Linguistics, WCAS</td>
</tr>
<tr>
<td>Jillana Enten, Associate Professor of Instruction, Gender &amp; Sexuality Studies Program; Asian American Studies and Asian Studies Program Faculty, WCAS</td>
</tr>
<tr>
<td>Chloe Thurston, Assistant Professor, Political Science, WCAS</td>
</tr>
<tr>
<td>Rachel Webster, Associate Professor of Instruction, Department of English, Director, English Major in Writing, WCAS</td>
</tr>
<tr>
<td>Moderator: Bennett Goldberg, Ph.D., Director, Searle Center for Advancing Learning and Teaching, Professor of Physics and Astronomy</td>
</tr>
<tr>
<td>Lake Room</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Exploring Identity, Power and Privilege in a Learning and Teaching Context – A Conversation with Northwestern Change Makers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alex Birdwell, Assistant Professor of Instruction, Mechanical Engineering &amp; Undergraduate Engineering Office</td>
</tr>
<tr>
<td>Emma DeCosta, Ph.D., Lecturer at McCormick Office of Undergraduate Engineering, McCormick Advisor</td>
</tr>
<tr>
<td>Regina Logan, Research Assistant Professor, School of Education and Social Policy Foley Center for the Study of Lives</td>
</tr>
<tr>
<td>Cristina Traina, Chair, Professor, Department of Religious Studies, WCAS</td>
</tr>
<tr>
<td>Evan Mwangi, Associate Professor, Department of English, WCAS</td>
</tr>
<tr>
<td>Moderator: Bennett Goldberg, Ph.D., Director, Searle Center for Advancing Learning and Teaching, Professor of Physics and Astronomy</td>
</tr>
<tr>
<td>Northwestern Room</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C. Northwestern’s Social Justice Peer Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robert Brown, Director, Social Justice Education, Student Affairs</td>
</tr>
<tr>
<td>Introduced By: Marina Micari, Ph.D., Director, Academic Support &amp; Learning Advancement; Associate Director, Searle Center for Advancing Learning and Teaching</td>
</tr>
<tr>
<td>Arch Room</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D. Incorporating Social Justice Education into a Residency Curriculum; Laying the Foundation to Tackle Disparities and Bias</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deborah Edberg, Assistant Professor, Family and Community Medicine, Feinberg School of Medicine</td>
</tr>
<tr>
<td>Deborah Clements, Professor, Family and Community Medicine, Feinberg School of Medicine</td>
</tr>
<tr>
<td>Introduced By: Lauren Woods, Ph.D., CIRTL at Northwestern Postdoctoral Fellow in STEM education, Searle Center for Advancing Learning and Teaching</td>
</tr>
<tr>
<td>Rock Room</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E. Listening, engaging and storytelling in a polarized world: Medill explores cultural competency in the field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mei Ling Hopgood, Clinical Associate Professor, Journalism, Medill School of Journalism</td>
</tr>
<tr>
<td>Introduced By: Susanna Calkins, Ph.D., Director, Faculty Initiatives, Searle Center for Advancing Learning and Teaching</td>
</tr>
<tr>
<td>Armadillo Room</td>
</tr>
</tbody>
</table>
## 12.1 Table 2. Learning, Teaching, and Assessment Forum Schedule: 2017

### Northwestern Learning, Teaching, and Assessment Forum
Sharing Insights into Student Learning

<table>
<thead>
<tr>
<th>Concurrent Roundtables 1</th>
<th>Concurrent Roundtables 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Using Formative Assessment to Gauge Student Learning</strong></td>
<td><strong>F. Enhancing and Assessing Critical Thinking</strong></td>
</tr>
<tr>
<td>Shannon Crabtree, Physician Assistant Program, Feinberg</td>
<td>Veronica Berns, Chemistry, Weinberg</td>
</tr>
<tr>
<td>Susan Dun, Media Industries and Technologies Program, School of Communication - NU-Q</td>
<td>Michelle Guittar, Research and Learning Services, Library</td>
</tr>
<tr>
<td>Stephanie Knez, Chemistry, Weinberg</td>
<td>Igor Kourkine, Master of Science in Biotechnology Program, McCormick</td>
</tr>
<tr>
<td>Jingjing Ji, Asian Languages and Cultures, Weinberg</td>
<td>Jules Law, English, Weinberg</td>
</tr>
<tr>
<td><strong>Moderator:</strong> Daley Catherine Kutzman, Economics, Weinberg</td>
<td><strong>Moderator:</strong> Mary Finn, Dean's Office English, Weinberg</td>
</tr>
<tr>
<td><strong>Northwestern Room</strong></td>
<td><strong>Northwestern Room</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Concurrent Roundtables 1</th>
<th>Concurrent Roundtables 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B. Creating Cultural Relevance and Awareness in the Classroom</strong></td>
<td><strong>G. Learning in Groups and Teams</strong></td>
</tr>
<tr>
<td>Paul Arntson, Master of Science in Communication Program, School of Communication, and SESP</td>
<td>Aaron Peterson, Mathematics, Weinberg</td>
</tr>
<tr>
<td>Alejandro Carrión, Latina and Latino Studies Program, Weinberg</td>
<td>Keith Tyn, Chemical and Biological Engineering, McCormick</td>
</tr>
<tr>
<td>Hříšeľ Julia Hobart, Kaplan Institute, Science in Human Culture, Asian American Studies, Weinberg</td>
<td><strong>Moderator:</strong> John Mordacq, Program in Biological Sciences, Weinberg</td>
</tr>
<tr>
<td>Nitasha Sharma, African American Studies, Asian American Studies, Weinberg</td>
<td><strong>Arch Room</strong></td>
</tr>
<tr>
<td><strong>Moderator:</strong> Monica Ruesel y Rodriguez, Dean's Office, Anthropology, Latino and Latina Studies, Weinberg</td>
<td><strong>Rock Room</strong></td>
</tr>
<tr>
<td><strong>Lake Room</strong></td>
<td><strong>Rock Room</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Concurrent Roundtables 1</th>
<th>Concurrent Roundtables 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C. Assessing Learning in Graduate and Professional Education</strong></td>
<td><strong>H. Assessing Creative Work</strong></td>
</tr>
<tr>
<td>Anthony Chambers, Family Institute, Psychology, Weinberg</td>
<td>David Tolchinsky, Writing for the Screen and Stage, Radio/Television/Film, School of Communication</td>
</tr>
<tr>
<td>Elizabeth Lenaghan, The Cook Family Writing Program, Weinberg</td>
<td><strong>Moderator:</strong> Michele McDonough, Molecular Biosciences, Weinberg</td>
</tr>
<tr>
<td>Angela Roberts, Communication Sciences and Disorders, School of Communication</td>
<td><strong>Arch Room</strong></td>
</tr>
<tr>
<td><strong>Moderator:</strong> Nancy Ruggeri, Searle Center for Advancing Learning and Teaching</td>
<td><strong>Moderator:</strong> John Mordacq, Program in Biological Sciences, Weinberg</td>
</tr>
<tr>
<td><strong>Rock Room</strong></td>
<td><strong>Arch Room</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Concurrent Roundtables 1</th>
<th>Concurrent Roundtables 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D. Curriculum Mapping: The Process of Aligning Student Learning Outcomes at the Program and Division Levels</strong></td>
<td><strong>I. Designing and Assessing Digital Learning Projects</strong></td>
</tr>
<tr>
<td>Amy Haenemeyer, Master of Science in Communication Program, School of Communication</td>
<td>Denise M. Mueser, German, Weinberg</td>
</tr>
<tr>
<td>Celia O'Brien, Medical Education, Feinberg</td>
<td>Karrie Snyder, Sociology, Weinberg</td>
</tr>
<tr>
<td>Jill Hardin Wilson, Industrial Engineering &amp; Management Sciences, McCormick</td>
<td>Francesca Tataranni, Classics, Weinberg</td>
</tr>
<tr>
<td><strong>Moderator:</strong> Sharisse Greiman, Searle Center for Advancing Learning and Teaching</td>
<td><strong>Moderator:</strong> Jeff Merrell, Learning &amp; Organizational Change Program, SESP</td>
</tr>
<tr>
<td><strong>Arch Room</strong></td>
<td><strong>Lake Room</strong></td>
</tr>
</tbody>
</table>

### Lunch and Student Panel: Our Students’ Experience of Learning

**Panel Moderator:** Candy Lee, Professor, Journalism, Media, Integrated Marketing Communications, Medill

**Panelists:** Lisa Beckmann, Lim Han Yang Benjamen, Matthew David Dulas, Tommy Denby, Deonte Gibson, Adina Goldman, Evelyn Hudson, Philip Maurice Meyers, Allyson Leigh Snyder
## 12.1 Table 4. University Teaching Roundtable Series, 2017-2018

<table>
<thead>
<tr>
<th>Roundtable Title</th>
<th>Date</th>
<th>Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using Improv to Overcome Barriers to Team Creativity</td>
<td>10.09.17</td>
<td>13/17</td>
</tr>
<tr>
<td>Engaging undergraduates in productive discussions</td>
<td>10.20.17</td>
<td>15/20</td>
</tr>
<tr>
<td>Classroom Collaboration: Providing Opportunities for Students to Engage and Explore for Deep Learning</td>
<td>02.15.18</td>
<td>17/12</td>
</tr>
<tr>
<td>Bringing the &quot;Real World&quot; into the Classroom</td>
<td>03.01.18</td>
<td>11/12</td>
</tr>
<tr>
<td>Choose Your Own Adventure: My Experience with Offering Students a Menu of Assignment/Activity Options in a Lecture Course</td>
<td>04.17.18</td>
<td>16/16</td>
</tr>
<tr>
<td>Mining the Personal to Overcome Intellectual Insecurity</td>
<td>05.16.18</td>
<td>10/13</td>
</tr>
<tr>
<td>Crafting the Curriculum to Foster Students' Creativity and Independent Learning</td>
<td>05.30.18</td>
<td>13/15</td>
</tr>
</tbody>
</table>
### 12.1 Table 3. Faculty Workshop Series, 2017-2018

<table>
<thead>
<tr>
<th>Workshop Title</th>
<th>Date</th>
<th>Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Faculty Workshop</td>
<td>09.13.17</td>
<td>49/57</td>
</tr>
<tr>
<td>In person webinar viewing: How to Facilitate Difficult Dialogues in the Classroom</td>
<td>09.19.17</td>
<td>32/54</td>
</tr>
<tr>
<td>Teaching Together—Making Co-Teaching 'Work'</td>
<td>10.03.17</td>
<td>5/6</td>
</tr>
<tr>
<td>Developing Effective Learning Objectives (Online workshop)</td>
<td>10.24.17</td>
<td>11/22</td>
</tr>
<tr>
<td>Inclusive Course Design</td>
<td>11.15.17</td>
<td>6/9</td>
</tr>
<tr>
<td>Rethinking the Lecture: Strategies to Engage Students and Promote Critical Reflection in Class - 1</td>
<td>11.17.17</td>
<td>14/31</td>
</tr>
<tr>
<td>Providing Meaningful Feedback</td>
<td>01.22.18</td>
<td>13/14</td>
</tr>
<tr>
<td>Rethinking the Lecture: Strategies to Engage Students and Promote Critical Reflection in Class - 2</td>
<td>02.27.18</td>
<td>14/19</td>
</tr>
<tr>
<td>Assessing Creative Work</td>
<td>03.09.18</td>
<td>5/8</td>
</tr>
<tr>
<td>Creating and Grading Student Projects, Papers, and Exams</td>
<td>04.26.18</td>
<td>6/9</td>
</tr>
<tr>
<td>Critical Thinking</td>
<td>05.04.18</td>
<td>4/6</td>
</tr>
<tr>
<td>Promoting Collaborative Learning in Large and Small Classes</td>
<td>05.09.18</td>
<td>8/11</td>
</tr>
<tr>
<td>Rethinking the Lecture: Strategies to Engage Students and Promote Critical Reflection in Class - 3</td>
<td>05.21.18</td>
<td>4/9</td>
</tr>
<tr>
<td>Engaging Students While Gauging Learning: Classroom Assessment Techniques</td>
<td>05.31.18</td>
<td>14/19</td>
</tr>
</tbody>
</table>
APPENDIX 12.2 SEARLE FELLOWS PROGRAM
COHORT 2017-2018

**Ballard, Heather A.** (Pediatrics, Anesthesiology 2017-2018)
Mentor: Jeffrey Barsuk
Project Title: Developing an Ultrasound-Guided Vascular Access Curriculum Using Simulation-Based Mastery Learning
Keywords: *simulation-based mastery learning, partial task trainer, deliberate practice*

**Ben Romdhane, Asma** (Arabic Language [MENA], 2017-2018)
Mentor: John Paluch
Project Title: Student Engagement in Social Networking Context: Using Arabic Facebook Project as Part of the Next Generation Curriculum
Keywords: *engagement, social media, foreign language learning*

**Boyk, David** (Asian Languages and Cultures, 2017-2018)
Mentor: Laura Brueck
Project Title: Bilingual Pedagogy in the Humanities
Keywords: *bilingual, collaboration, differentiated instruction*

**Donnelly, Eric D.** (Radiation Oncology, 2017-2018)
Mentor: Shohreh Shahabi
Project Title: Implementing an Active Learning Environment to Improve Residency Education in Gynecologic Brachytherapy
Keywords: *instructional design, active learning, deliberate practice*

**Hambleton, James Paul** (Civil and Environmental Engineering, 2017-2018)
Mentor: Richard Finno
Project Title: Maximizing Learning Outcomes in a Mixed Level Graduate Engineering Course
Keywords: *project-based learning, cooperative learning, co-teaching*

**Hartmann, Erica Marie** (Civil and Environmental Engineering, 2017-2018)
Mentor: Neal Blair
Project Title: Assessment of Concept Mastery Based on Creativity and Critical Thinking
Keywords: *evaluation, creativity, critical thinking*
Hernandez-Saborit, Sara (Economics, 2017-2018)
Mentor: Lori Beaman
Project Title: Teaching Introduction to Microeconomics with Real World Cases
Keywords: real-world case studies, engaged learning, critical thinking

Hibler, Elizabeth A. (Preventive Medicine, 2017-2018)
Mentor: Mercedes Carnethon
Project Title: Course Design: Exploring Trends in Cancer Epidemiology using Real-World Data
Keywords: project-based learning, real-world data, cancer epidemiology

Kalow, Julia Ann (Chemistry, 2017-2018)
Mentor: Regan Thomson
Project Title: Implementing Proposal Writing and Review in a Graduate Organic Reaction Mechanisms Course
Keywords: critically evaluating primary literature, proposal writing, peer review

Matthews, Jolie Christine (Learning Sciences, 2017-2018)
Mentor: David Rapp
Project Title: Teaching Students to Become Critical Consumers and Producers of Content as They Interact with and Conceptualize Media Technology
Keywords: media literacy, critical thinking, source credibility

Mosser, Eric Ardon (Program in Biological Sciences, 2017-2018)
Mentor: John Mordacq
Project Title: Learning How to Evaluate and Communicate Science in a Group of First Year Students with Diverse Backgrounds and Interests
Keywords: experience-based learning, active learning strategies, communication

Norton, Elizabeth Spencer (Communication Sciences and Disorders, 2017-2018)
Mentor: Matthew Goldrick
Project Title: Using Authentic Activities to Promote Content Learning, Skill Development, and Critical Thinking in an Undergraduate Cognitive Neuroscience Seminar
Keywords: authentic learning, project-based learning, research

Quadri, Maheen (Pediatrics, 2017-2018)
Mentor: Jennifer Trainor
Project Title: Incorporating Active Learning into a Pediatric Residency Primary Care Curriculum
Keywords: active learning, graduate medical education, problem-based learning
Rivnay, Jonathan (Biomedical Engineering, 2017-2018)
Mentor: Guillermo Ameer
Project Title: Cooperative Learning in Bioelectronics
Keywords: cooperative learning, jigsaw, active learning

Saroli, Tania L. (Pediatrics, Cardiology, 2017-2018)
Mentor: Peter Koenig
Project Title: Development and Implementation of a Comprehensive Curriculum for Pediatric Echocardiography Boot Camp
Keywords: medical education, echocardiography, boot camp

Verma, Neil Kanwar Harish (Radio/Television/Film, 2017-2018)
Mentor: Mimi White
Project Title: Podagogy 2.0: Opportunities and Challenges Facing Student Podcast Coursework
Keywords: podcasting, podagogy, media studies

Wang, Mitchell [Muzhou] (Chemical and Biological Engineering, 2017-2018)
Mentor: Michael Jewett
Project Title: Student-Composed Homework Problems in an Upper-Level Engineering Course
Keywords: class participation, active learning, student teaching

Wolfe, Katie Knoedelseder (Pediatrics, Critical Care Medicine, 2017-2018)
Mentor: Mary McBride
Project Title: Assessing and Improving the Learning Environment for Pediatric Residents in the Pediatric Intensive Care Unit
Keywords: graduate medical education, learning environment, feedback

Young, Sera Lewise (Anthropology, 2017-2018)
Mentor: William Leonard
Project Title: Can Conducting a Systematic Literature Review Teach Undergraduates About Water Insecurity?
Keywords: systematic literature review, research-based learning, real world application
### 12.3 GRADUATE AND POSTDOCTORAL LEARNING DATA

#### 12.3 Table 1. New TA Conference Participation by School, 2017-18

<table>
<thead>
<tr>
<th>School</th>
<th>Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weinberg College of Arts &amp; Science</td>
<td>78</td>
</tr>
<tr>
<td>School of Communication</td>
<td>57</td>
</tr>
<tr>
<td>McCormick School of Engineering and Applied Science</td>
<td>33</td>
</tr>
<tr>
<td>Bienen School of Music</td>
<td>16</td>
</tr>
<tr>
<td>Feinberg School of Medicine</td>
<td>5</td>
</tr>
<tr>
<td>School of Education and Social Policy</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>190</strong></td>
</tr>
</tbody>
</table>

#### 12.3 Table 2 Teaching Certificate Program Participants by Discipline, 2017-18

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEM (Science, Technology, Engineering, Math)</td>
<td>27</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>13</td>
</tr>
<tr>
<td>Humanities</td>
<td>18</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>58</strong></td>
</tr>
<tr>
<td>Workshop Title</td>
<td>Date</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Negotiating Classroom and Teaching Conflicts with Students, TAs, and Instructors</td>
<td>October 12, 2017</td>
</tr>
<tr>
<td>Participation Through Preparation: Planning to Get the Most Out of Your Classroom</td>
<td>November 3, 2017</td>
</tr>
<tr>
<td>Engaging the Disengaged: Active Learning in STEM**</td>
<td>November 8, 2017</td>
</tr>
<tr>
<td>Hey, What the Tech!?: Enriching Student Comprehension through Integrated Media Technologies</td>
<td>November 21, 2017</td>
</tr>
<tr>
<td>Successful Assessments in Seminar Style Courses</td>
<td>November 28, 2017</td>
</tr>
<tr>
<td>Communication Strategies for the Multilingual Classroom</td>
<td>January 26, 2018</td>
</tr>
<tr>
<td>Adopting the Purrr-fect CATs: Implementing Assessment Techniques that Fit Your Classroom</td>
<td>January 30, 2018</td>
</tr>
<tr>
<td>More Than Making the Grade: Mentoring Student Writing before and after the Deadline</td>
<td>February 13, 2018</td>
</tr>
<tr>
<td>The 'L.' Word: Using Engaged Lecturing in the</td>
<td>February 21, 2018</td>
</tr>
<tr>
<td>Classroom Climate Change: Establishing a Community Centered Classroom</td>
<td>March 1, 2018</td>
</tr>
<tr>
<td>Facilitating Learning with Small Group Work to Make a Bigger Impact</td>
<td>March 6, 2018</td>
</tr>
<tr>
<td>Integrating Primary Literature into the STEM Classroom **</td>
<td>March 13, 2018</td>
</tr>
<tr>
<td>If You Are Using One Teaching Technology In Your Classroom, It Should Be Clickers**/* ***</td>
<td>April 11, 2018</td>
</tr>
<tr>
<td>No Tears Grading: Responding to Student Writing with Realistic Expectations</td>
<td>April 20, 2018</td>
</tr>
<tr>
<td>Talking the Talk: Techniques from Language Classrooms for Teaching Academic Jargon</td>
<td>May 2, 2018</td>
</tr>
<tr>
<td>Writing Effective Teaching Statements: Getting Started**/***</td>
<td>May 9, 2018</td>
</tr>
<tr>
<td>Beyond 'She was Nice': Making the Most of Student Feedback</td>
<td>May 24, 2018</td>
</tr>
<tr>
<td>Writing Effective Teaching Statements: Peer Review**/***</td>
<td>May 30, 2018</td>
</tr>
<tr>
<td>Mentoring as Teaching: Best Practices in a Research Lab**</td>
<td>May 31, 2018</td>
</tr>
<tr>
<td>Developing an Effective Teaching Portfolio</td>
<td>July 18, 2018</td>
</tr>
<tr>
<td>Developing an Effective Teaching Portfolio</td>
<td>July 25, 2018</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Average Rating: “Give an overall rating for the workshop” (1 Not at all Useful – 5 Very Useful)

**Part of the CIRTL Workshop Series

***Faculty/staff-led workshops. Separate evaluations were done for most of these workshops
Appendix 12.4  2018 Broader Impacts Forum Agenda

February 5, 2018
Norris University Center
Louis Room

8:00 am – 8:30 am  Coffee and light breakfast

8:30 am – 8:40 am  Welcome
Jay Walsh, Vice President for Research, Professor of Biomedical Engineering

8:40 am – 9:10 am  Introduction to Broader Impacts
Office of Community Education (OCEP)
Science in Society (SiS)
Searle Center for Advancing Learning and Teaching
Office of Research Development (ORD)

9:10 am – 9:55 am  Keynote Address
“Communicating Reproductive Science to a Doubtful World”
Teresa Woodruff, Dean of the Graduate School, Professor of Obstetrics and Gynecology

10:00 am – 11:00 am  Panel 1: Diversity, Equity, & Inclusion
Alejandro Carrión, Assistant Professor, Latina and Latino Studies
Margarita Vizcarra, Academic Adviser, Evanston Township High School
Shirin Vossoughi, Assistant Professor, Learning Sciences
Marcelo Worsley, Assistant Professor, Learning Sciences & Computer Sciences

11:15 am – 12:15 pm  Panel 2: K–12 Education
Lisa Backus, Teacher, Deerfield High School
Paul Goren, Superintendent, Evanston/Skokie District 65
Lincoln Lauhon, Professor, Materials Science & Engineering
Sherri Rukes, Teacher, Libertyville High School
Karen Smilowitz, Professor, Industrial Engineering and Management Sciences

12:15 pm – 1:15 pm  Networking Lunch
Engage with community partners, panelists, and colleagues
1:30 pm – 2:30 pm

**Panel 3: Public Engagement**

Jen Brown, Director, *Alliance for Research in Chicagoland Communities (ARCC)*

Ahmed Chaudhry, ARCC Community Co-Chair, *Puerto Rican Cultural Center*

Michael Horn, Associate Professor, *Learning Sciences & Computer Sciences*

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2:30 pm – 2:45 pm

**Call to Action!**

Bennett Goldberg, Director, *Searle Center for Advancing Learning and Teaching, Assistant Provost for Learning and Teaching*

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2:45 pm – 4:00 pm

**Community Partner Appreciation Reception**

All attendees are invited

*Sponsored by the Office of Community Education Partnerships (OCEP) and Science in Society (SiS)*

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### 12.5 BROADER IMPACTS FORUM COMMUNITY PARTICIPANTS

| Accessliving | Fermilab |
| American Cancer Society | HOPE Network of Schools |
| Apna Ghar | Ingenuity |
| Apostolic Faith Church | Lindblom Math & Science Academy |
| Argonne National Laboratory | Lurie Children's Hospital of Chicago |
| Center for Community Health | Lyric Opera of Chicago |
| The Chicago Academy of Sciences | Museum of Science and Industry |
| Chicago Children's Museum | Peggy Notebaert Nature Museum |
| Chicago Public Schools | Puerto Rican Cultural Center |
| Deerfield High School | Respiratory Health Association |
| Demoiselle 2 Femme | Roycemore School |
| Edgar Miller Legacy |  |
| Endeleo Institute |  |
| Evanston/Skokie School District 65 |  |
| Evanston Township High School |  |