Searle Center for Advancing Learning and Teaching
Annual Report
2018-2019
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Our mission is to advance learning. We enhance learning and teaching at all levels of the University and are dedicated to four core activities: faculty development; graduate student and postdoctoral scholar development; undergraduate academic support and enrichment; and assessment, evaluation, and education research. Through its wide range of programs, services, and research, the Center seeks to assist all members of the Northwestern community in developing highly effective learning environments and experiences for their students, their colleagues, and themselves. Since its founding, the Center has substantially grown in breadth and reach, and its staff make meaningful contributions nationally and internationally to the literature on learning and teaching.

Our values: The Searle Center works to develop educators who place learners at the center of their teaching. Meeting learners where they are promotes learning and success.

We seek to create and promote inclusive learning environments across campus and the country. An inclusive learning environment respects all individuals and values their contributions and perspectives to achieve equitable outcomes for all learners, regardless of background.

We take a reflective approach to all that we do and share this process with those we interact with through programming and collaboration. Collecting evidence and reflecting on what works, or does not work, allows for continuous innovation and improvement in the classroom and in our programming and services.

Our structure: The Searle Center is a research<>practice partnership: Our research and innovation efforts develop and validate new approaches in learning and teaching and our programming is based on the research evidence. Both our research and our practice implement data-driven cycles of improvement.

Provost Jonathan Holloway presenting certificates of acknowledgement to the ITF undergraduate student ambassadors

Students engaged in ASLA Drop-In Peer Tutoring and Peer-Guided Study Groups
Message from the Director

Dear Colleagues:

I am honored to support the amazing collaborations across Northwestern that the Searle Center has with many of you on your research, training, courses, curriculum, evaluation, and learning and teaching projects and programs. Your efforts, in collaboration with our incredible team at Searle, to learn how to create inclusive learning environments that reach all students, innovate and take risks in the classroom, and support innovative training across the pathways from pre-baccalaureate to senior faculty professional development are what make our advances successful.

This past year the Searle Center advanced the academic success of nearly 4,000 undergraduates; collaborated on 24 Northwestern faculty-led proposals proposals worth $110m; prepared 500 graduate students and postdocs to be effective instructors; lead five national funded research and innovation programs; immersed 500 Northwestern faculty in professional develop programs to become reflective and inclusive teachers; and evaluated the success of 22 Northwestern centers, training grants and research programs.

As exciting as the numbers are, the real success lies in the deeper measures - the reformed curriculum, new and improved classes, better student learning, graduates in exciting placements, and Searle Fellows winning the University Teaching awards. These are detailed in the sections below.
The Searle Center is an integrated center, where our combined expertise are critical to Northwestern’s success. For example, our knowledge of inclusive practices and professional development deepens our assessments and evaluations of centers and training programs, allowing us not simply to provide feedback, but to recommend far more informed program changes. Our expertise in faculty professional development allows us to create greater integration of student peer-led study group into classes. We often co-develop programs, like when Faculty Initiatives and Grad and Postdoc Learning collaborate to train faculty on mentoring teaching assistants, or when diversity, equity and inclusion in Faculty Initiatives works with Academic Support and Learning Advancement to improve the inclusivity of study groups and advance help-seeking by Northwestern’s first generation, low-income and underrepresented students.

The Searle Center for Advancing Learning and Teaching is structured and organized as a research<>practice partnership. This structure advances research and scholarship in learning and teaching to create, measure and disseminate innovative approaches locally, nationally, and globally that build inclusive learning environments, center the learner in teaching, train practitioners at every level, and are disseminated in books and book chapters, publications and invited presentations at international conferences. We are PIs or co-PIs on $6m in such funding, which provides the expertise and leadership background to support Northwestern’s faculty in so many research and training grants themselves. Critically, this research informs all our practice, all our service to the students and faculty of Northwestern. Our programs are cutting edge, evidence-based, and integrated with most advanced assessments, and are themselves a great source of innovation and scholarship. Today’s ASLA was created through a Mellon grant as Gateway Science Workshops, and have evolved over the past decade to become the largest, best studied, integrated peer-led study groups in the country. As our practice and service identifies gaps, places students and faculty are finding challenge, and our research often addresses them with best practice.

Innovation and Scholarship, expanding research work at Northwestern and nationally

Alignment with University goals and mission

Structure of the report: This year’s annual report has been reorganized to capture our impact and support your efficient access to information. Glance through By the numbers to see how many thousands of participants our work engages. In our Theory of change, examine the logic behind how our programming creates change and advances learning and teaching. Read in Measuring impact how our aligned assessments and evaluations measure the direct outcomes as well as longer term emergent impact. Experience personal stories in the sidebars, and meet our four new staff members.
Research - Practice Partnership in a Learning and Teaching Center

**RESEARCH**
- Ideate & Innovate
- Improve
- Experiment
- Collect Evidence

**BEST PRACTICES**

**PRACTICE**
- Programming
- Improve
- Implement
- Collect Evidence

**GAPS & NEEDS**

Lived experiences; real-world context; Scholarship informing national practice
Graduate Student and Postdoctoral Learning

Vision and Mission

Graduate Student and Postdoctoral Learning works across programs and departments at Northwestern to help create inclusive, engaging learning environments and prepare graduate students and postdocs for the academic job market.

- Directly support graduate students and postdocs in their teaching at all levels, whether it be as a new teaching assistant or instructor of record.
- Promote inclusive teaching practices

This year has been one of significant success and change for our unit. We led a national search and hired a new postdoc to help lead the Teaching Certificate Program. Our key accomplishments and impacts include:

- **Teaching Certificate Program** served over 275 graduate students and postdoctoral fellows across 55 departments and programs in the past five years.
- Trained 23 graduate students to lead 27 interactive learning and teaching workshops for the New TA Conference
- **New TA Conference** in September attended by over 250 Northwestern graduate students.

Theory of Change

- We believe that creating peer-led programs increases self-efficacy around evidence-based teaching practices
- We believe that peer-led programming positively impacts the participants because they are closer to having been learners themselves.
- We believe that creating discipline-specific learning communities (TCP small group work, MCLCs) for graduate students and postdocs will enhance understanding of learning and teaching.
- We believe that developing departmental capacity (GTFs, NTAC, etc) through graduate student training will change the culture around teaching and learning.
- We believe that integrating diversity, equity, and inclusion into our programming will help change the climate in classrooms and departments across campus.
- We believe that emphasizing inclusive course design will impact the climate and student learning at Northwestern.

CIRTL at Northwestern programs are designed to improve undergraduate STEM and social science education through professional development program for graduate students and postdoctoral fellows.

Highlights:

- 54% increase in participation across our three core programs in the last year
- 32 graduate students and postdoctoral fellows participated in the STEM Teaching MOOC-Centered Learning Community (MCLC), one of our five different learning communities led by a trained peer facilitator.

We also welcomed two new faculty session co-leaders to Mentored Discussions of Teaching this year (Stephanie Knezz, Chemistry, and Casey Ankeny, Biomedical Engineering) who shared their insights into how they create inclusive classrooms and conduct education research with our 47 program participants. Nine graduate students and postdocs participated in the Searle Teaching-As-Research (STAR) Program where they implemented classroom-based research projects designed to improve student learning in disciplines ranging from Industrial Engineering to Global Health. We also expanded our work in promoting women in STEM across campus through the development and facilitation of a workshop...

We wrapped up our year by expanding an annual event that highlights the important work that graduate students and postdoctoral fellows do to improve learning and teaching at Northwestern by partnering with the Northwestern Center for Engineering Education Research (NCEER) to invite a keynote speaker for this event, Dr. Alice Pawley (Associate Professor of Engineering Education, Purdue University). The symposium featured poster presentations from nineteen graduate students and postdoctoral fellows from across disciplines on learning and teaching projects done through our GTF, STAR, and TCP programs at our center this academic year. Over 115 faculty, staff, graduate students, and postdoctoral trainees attended this event and 41/45 attendees who filled out the post-evaluation said they were very to extremely likely to recommend the symposium to a colleague.

GOALS FOR NEXT YEAR

Key goals for Graduate and Postdoctoral Learning in 2019-20 include:

- Continue to build partnerships and collaborations across campus and departments to expand our reach
- Expand peer-leadership opportunities
- Develop capacity within departments to provide professional development opportunities for graduate students and postdocs
- Create discipline-specific learning communities

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Searle grad program
Faculty Initiatives

Vision and mission

The Faculty Initiatives unit seeks to build capacity in individual faculty members, as well as in departments, units and colleges/schools, in areas related to teaching, creating inclusive learning environments, assessing student learning, evaluating educational programs, curriculum mapping, mentoring, and enhancing learning and teaching with technology.

Theory of change

We believe that by (1) exposing faculty to variation in teaching approaches and methods, (2) helping them reflect critically on their approach to teaching and their students learning, and (3) promoting cross-disciplinary dialogues around teaching, they will learn to change and adapt how they teach which, in turn, will have a positive measurable impact on student learning.

This year we worked with hundreds of faculty across the university, conducting individual consultations, facilitating workshops, roundtables and programs. We also added two new colleagues to our team: Veronica Wolmack, who serves as Project Manager for Inclusive Learning on our IUSE grant, and Lisa Davidson, our Senior Assessment Associate.

- **Searle Fellows Program**: This comprehensive, year-long faculty development program is designed to provide early career faculty (both tenure and teaching line) enhance their teaching and their students’ learning. 16 faculty and 16 senior mentors participated in the program this year, creating individual meaningful projects in learning and teaching, and writing those projects up as reflective critical accounts. Broader impact: 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. Since 2014, 11 Searle Fellows have been awarded University Teaching Awards, the highest award offered by the university. Many others have moved into leadership departments in their departments and schools, as department chairs and serving on curriculum committees. Last year, two Searle Fellows published articles based on their critical accounts in peer-reviewed disciplinary journals.

- **Faculty development workshops and roundtables**: 
  - 11 one-off faculty development workshops related to learning and teaching. Four new topics developed this year. 196 faculty participated (averaging 18 faculty/session). Follow-up surveys indicated generally high satisfaction around relevance and utility, and most indicated the willingness to change at least one thing in their practice.
  - New Faculty Workshop (NFW): 38 new faculty (teaching-line, tenure-line, adjunct), ranging from 0-11 years of teaching experience. About half completed post-program survey with about three-quarters indicating the workshop was useful and relevant.
  - Learning Spaces Collaboratory Roundtable: 46 participants
  - 3 University Teaching Roundtables led by University Teaching Award recipients: 48 faculty attended, averaging 16 per session.
  - These sessions collectively help demonstrate the value the university places on teaching, and provides opportunities for exposure to innovative
Faculty Open Classroom Initiative (FOCI): 68 faculty opened their classrooms in 75 courses to colleagues, yielding 196 registered observations. Getting feedback on teaching from colleagues and being exposed to how other’s teach is fundamental to reflecting on their teaching. This week-long event helps foster transparency in teaching and helps cultivate a larger sense of shared purpose about enhancing and teaching and student learning.

Center for Communication and Health: Co-facilitated monthly sessions and retreat related to syllabus study and curriculum mapping.

Diversity, Equity, and Inclusion
Theory of change

We believe that by (1) helping faculty critically reflect on their social and personal identities and how these identities have implications for their teaching practices, (2) exposing faculty to evidence-based methods of inclusive teaching pedagogies, and (3) equipping faculty with the skills to recognize and disrupt inequities in the classroom, faculty will learn to change and adapt their mindsets and daily behavior which, in turn, will have a positive measurable impact on students’ learning who identify with a variety of social identities and precollege backgrounds.

A Seat at the Table: Centering Diversity, Equity, and Inclusion in Learning and Teaching: This three-part series brought together an eleven-member faculty cohort to discuss topics related to diversity, equity, and inclusion (DEI) in teaching and learning (e.g., facilitating difficult dialogues). During these roundtable discussions, participants engaged in dialogue with fellow attendees on selected readings as well as shared their personal thoughts, questions, insights, and experiences with engaging in DEI work in higher education. The Seat at the Table series aims to create awareness about the importance of fostering inclusive classrooms and learning environments and to provide a space in which individuals can work together to further their understanding of diversity, equity, and inclusion. Approximately 10 faculty participated in this series.

Inclusive Teaching Forum (ITF): The third annual Inclusive Teaching Forum (ITF) brought members of the Northwestern community together to engage in discussions and activities aimed at fostering inclusive learning spaces for all Northwestern students. This year's forum Plenary and Case Study discussions were designed to help participants: explore intersectionality and its impact in learning and teaching contexts; engage critically with case studies to explore authentic student experiences and their impact; engage in discussions around promising practices for inclusive teaching and learning; and continue to foster a culture of inclusive teaching practices. Approximately 90 faculty participated in the 2019 forum. Quantitative responses on the forum evaluation indicated faculty found the forum useful. Qualitative responses indicated faculty wanted more information and engagement on...
developing skills around inclusive teaching practices.

- Invited Talks on Diversity, Equity, and Inclusion in learning and teaching outside of Northwestern: This year the Assistant Director for Diversity, Equity, and Inclusion and the Director of the Searle Center were invited by the American Association of Medical Colleges, Medical University of South Carolina, and the Big10+ Meeting for Mechanical Engineering Directors of Graduate Studies to facilitate workshops on inclusive teaching practices and fostering learning spaces. Approximately 50 faculty and university administrators participated in these workshops (smallest session = 12 participants; largest session = ~25 participants). Specific topics included holistic admissions, inclusive research mentoring, and fostering inclusive learning and research environments.

- Faculty development workshops and consultations:
  - Three one-off workshops (requests and the department and college level) for new NW faculty on topics related to diversity, equity, and inclusion issues in learning and teaching. Approximately 90 faculty participated (~30 faculty/session).
  - Twenty one-off workshops related to fostering inclusive and equitable learning environments. Approximately 200 faculty participated. Post-workshop evaluations indicated faculty want more tangible skills to assist them with developing inclusive learning spaces.
  - Fifteen one-off consultations with faculty about a range of topics and issues related to inclusive teaching practices. Approximately 20 faculty participated in the consultation sessions (mode = 1 faculty/session but some sessions included up to 4 faculty members).
Academic Support and Learning Advancement

Academic Support and Learning Advancement (ASLA) is the central academic-support resource for Northwestern’s undergraduate students. ASLA achieves its mission of academic success by supporting individual students and by impacting the undergraduate academic culture at Northwestern.

1. **ASLA supports students.**
   a. Directly supporting students’ success in coursework, including drop-in tutoring and facilitated study groups.
   b. Promoting development in students’ academic strategies and skills, including group and individual coaching and consultations.

2. **ASLA impacts Northwestern’s undergraduate academic culture.**
   a. Enabling academic wellness among undergraduates through marketing and information campaigns and programming that promote healthy approaches to academic pursuits.
   b. Creating an environment that normalizes academic struggle, help-seeking, and support by providing spaces for authentic discussion of academic challenges and by engaging advisors, faculty, and other campus partners in coordinated messaging.

**Key accomplishments this year include**

- **Exploding student demand** -- ASLA served 3,846 students – a 45% increase over two years.
- **New programming** - **Navigating Northwestern Academics**, a series of informal firesides and other events bringing undergraduates, faculty, and advisors together to talk about academic challenges and strategies for managing them.
- **Contributing to the national conversation** around academic support: Hosting 100 academic-support professionals and faculty from around the US at the NSF-sponsored Developing a National Research Agenda for Academic Support conference (May 30-31, 2019). The project continues with ongoing research projects and mentoring and planned virtual meetings, as well as a white paper.
- **Creating four high-quality videos** to promote student academic wellness at Northwestern; campus partners are using these on websites and programming for new students.
- **Incorporating tutoring into Engineering classes**; working with the McCormick School of Engineering to streamline the support experience for students.

**Theory of Change**

**NUMBERS:**

- We engaged with **3846** undergraduates seeking support (Note that students are counted twice if they participate in more than one program)
- **214** undergraduates served as peer leaders in our programming
- The ASLA website (including the Academic Resource Portal) had **41,418** page views.

**STATEMENTS:**

- We believe that creating environments where undergraduates connect with supportive peers around academic work will decrease self-presentation concerns that can hamper learning, and create a sense of belongingness in the class and discipline.
- We believe that providing opportunities for undergraduates to witness others’ approaches to academic content will expand their own repertoires for working with the material and increase confidence and ability and, ultimately, opportunity for course success.
- We believe that countering pervasive beliefs about the need for academic near-perfection, with appealing messages that reinforce the value of seeking help and the normalcy of struggle, will decrease stigma around academic difficulty and increase students’ willingness to seek help – ultimately promoting learning and academic success.
- We believe that facilitating honest conversations among undergraduates and faculty/advisors around academic difficulty, and strategies for navigating it, will increase students’ trust of faculty/advisors, promote help-seeking, and normalize academic struggle – ultimately promoting learning and academic success.
- We believe that providing students tools for academic success at a time when they see a need for these, and in a supportive forum that normalizes struggle, will increase the chances that they make use of those tools.
We believe that explicitly demonstrating to students that the University cares about their success will decrease the sense of isolation in academic difficulty, increase help-seeking behaviors, and normalize academic struggle.

**HOW DO WE KNOW WHETHER IT’S WORKING?**

ASLA programming is designed to positively impact students’ academic experience by providing support that enhances knowledge and modifies beliefs about learning, thus producing better academic and psychosocial outcomes for undergraduates. ASLA measures effectiveness by evaluating whether particular goals for each program are met. For the course-support programs, this means looking at change in students’ self-efficacy in the course and study strategies, as well as course performance. For coaching programs, it means looking at change in learning beliefs and approaches, and in some cases changes in GPA. Additional evaluations track program quality, peer-leader performance, and subjective impact of programming.

**GOALS FOR NEXT YEAR**

Key goals for ASLA in 2019–20 include the following:

- Seek to reposition ASLA to fall under the APUE, in conversations with the Vice Provost for Academics and the Associate Provost for Undergraduate Education.
- Pilot new programming to support students who may be in greater need of academic support, in line with Lifecycle and similar initiatives at the University; explore later expansion based on evaluation and resource availability.
- Broaden and deepen collaborations with campus partners and stakeholders to reach students where they are, to increase students’ comfort in using services, and to strengthen ASLA’s brand identity.
- Develop campuswide help-seeking messaging/campaigns, expansion of informal marketing, effectively utilizing relationships with advisory board and other partners.
- Engage in national conversations around academic support, strengthening connections with colleagues and networks outside of Northwestern, and providing leadership within these.
Assessment and Evaluation Projects

Research, assessment and evaluation work is central to the Searle Center’s mission of advancing learning and teaching at Northwestern and beyond. Our evaluation of funded programs includes evaluation of new courses and programs, workshops, seminars, research in progress meetings, journal clubs, trainee experience, mentoring skills and trainee experience working in international labs. Our evaluation not only assesses the impact of activities, but provides program PI’s and faculty with feedback that is critical for program improvement. When we meet with PI’s and faculty to share evaluation findings, we not only share data, but also share pedagogical approaches to enhancing outcomes. 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.

- **DPT evaluation:** We conducted a qualitative assessment around the climate related to diversity, equity and inclusion and the impact on learning and teaching. We held a follow-up debrief to discuss report with findings and implications with over 40 faculty members to help them think reflect as a department on immediate and longer-term changes they might make.

- **BluePulse Pilot study:** In collaboration with the Office of Registrar we recruited 8 faculty from a range of disciplines and class sizes to pilot the potential of the Bluepulse by eXplorance as a student feedback system. Our findings—based on instructor and student surveys—were mixed. BluePulse may have been helpful to our target students—those who value the ability to ask and answer questions anonymously—but less valued by students who prefer to be identifiable to their faculty. We may conduct one more pilot in Winter 2020.

- **Biotechnology evaluation:** We completed the evaluation for the Master in Biotechnology Program, surveying students, to identify the extent to which the program meets student expectations, and to understand what students value about the program and the professional development training opportunities that are provided. The results were used to inform change and practice in the department.

- **Design, Thinking and Communication (DTC) evaluation:** We developed a program evaluation of a forthcoming curricular intervention in DTC (funded by a university Linzer Grant)

- **Postdoc Academy evaluation:** Dr Olivia Chesniak, Searle Center Postdoc, is responsible for both the formative and summative evaluation of the Postdoc Academy. Olivia’s formative evaluation is playing a key role in designing the modules for the Postdoc Academy MOOC which will be launched in January 2020. Together with her collaborator, Dr Celine Young from Boston University, Olivia has conducted 13 online virtual focus groups with 82 postdoctoral scholars. This ensures that the module content is relevant and appropriate for postdocs from a variety of personal and professional backgrounds. Feedback obtained through these focus groups has been instrumental in shaping the content. For example, participants pointed out that resilience may be defined differently by different cultures, and that the content of the resilience module was focused on an American definition. This feedback informed modifications the Postdoc Academy team made to the content. Stories and perspectives of international postdocs were incorporated, as were discussions of the different barriers international postdocs face compared to domestic postdocs. Strategies for building resilience in other cultures were
highlighted within the course as well.

- **T32 Training Grant evaluation:** Northwestern currently has 40 funded training grants. These grants are a critical source of funding for PhD students and postdocs in the Biomedical and Life Sciences providing students with unique opportunities to develop cutting edge skills and knowledge in areas related to training grant themes e.g. biophysics, biotechnology, the cellular and molecular basis of disease. In response to new NIH requirements for training grant evaluation, the Searle Center has partnered with the Office of Graduate and Postdoctoral Affairs in the Graduate School to develop online RedCap system to support evaluation of trainee outcomes. The new RedCap system can be used to track trainees, document their publications, grants and presentations and to evaluate their progress in five areas that are common to all training grants 1) career development, 2) professional skills and development, 3) inclusivity, 4) rigor and reproducibility and 5) mentor relations. The RedCap system will be launched in Fall 2020 and will be available to all training grants at Northwestern. While the RedCap system provides a means of assessing progress of trainees in areas that are common across training grants, trainee progress must also be evaluated in areas that are unique to each program. The Searle Center continues to meet this need by developing tailored surveys and focus groups. In 2020, the Searle Center will develop additional evaluation measures to support the renewal of the Biophysics Training Grant.

- **NSF-Simons Center for Quantitative Biology (CQuB) evaluation:** Searle Center Evaluation Specialist, Dr Caroline Freitag, is leading the evaluation of CQuB at Northwestern. Her evaluation encompasses all aspects of the center from assessing the skills and competencies gained by trainees in transdisciplinary research to examining the training environment and research products of the center. Caroline recently conducted focus groups with trainees and interviewed CQuB PI’s and faculty regarding the research in progress and journal club meetings. Her reevaluation findings lead to a major redesign of these program components to make the knowledge shared more accessible to non-experts which would in turn facilitate more effective transdisciplinary learning.

- **Computationally-Based Imagine of Structure in Materials (CuBISM) evaluation:** CuBISM is a 5 year interdisciplinary research and education project funded by the National Science foundation. Using art as a catalyst for the development of innovative approaches to measuring change over time in complex materials, this training program involves a collaboration between Northwestern, the Art Institute of Chicago, and leading cultural heritage institutes in the Netherlands, France and Italy. Searle Center Research Associate, Katya Bitkin leads the evaluation of all aspects of the program including assessment of trainee experience and outcomes, mentoring, evaluation of new courses and skills workshops and evaluation of trainee experience in international labs. Katya recently conducted a series of interviews and focus groups with trainees about their experience in the program to date. Her evaluation revealed that the program is enabling trainees to develop a strong foundation in the understanding of the field of conservation science and to build a network of collaborators, nationally and internationally. Suggestions voiced by trainees regarding improvements needed in administrative communication and training in specific areas are already being addressed by the Program Directors.

- **A Chicago Center of Excellence in Learning Health Systems Research Training (ACCELERAT) evaluation:** Northwestern’s ACCELERAT program is one of 6 training programs funded by the Agency for Health Care Quality (AHRQ) to develop the next generation of health system transformation leaders. ACCELERAT will serve as a national leader in teaching core learning health systems (LHS) research competencies aimed to train our future LHS leaders to transform care delivery. Dr Denise Drane, Searle Center director for Research...
and Evaluation is leading the ACCELERAT program evaluation. She is currently working with ACCELERAT faculty at Northwestern to develop a protocol for assessing trainees’ LHS research competencies. AHRQ will make the protocol available to the 5 other centers that they have funded.

- **Assessment Highlights**
In May 2019, Dr Lisa Davidson joined the Searle Center as the Senior Assessment Associate. Since joining the Center, Lisa has supported program evaluation-, assessment-, and accreditation-related efforts. She designed two multi-year program evaluations for NSF (Innovations in Graduate Education) and Department of Energy (Bioengineering Technologies) grant proposals and designed a year-long evaluation of a forthcoming curricular intervention in NU’s McCormick School of Engineering and Applied Science. She provided evaluation-related consultation for four NSF CAREER, one NSF Directorate for Engineering Emerging Frontiers in Research and Innovation (EFRI) Research Experience and Mentoring (REM), and one Arthur Vining Davis Foundations grant proposal. She collaborated with Omari Keeles to execute a qualitative assessment of the climate for diversity in a NU graduate/professional program and to provide consultation on a related effort in another NU graduate program. Lisa began collaborating with the Reimagine CTECs taskforce to conduct a benchmarking study on the purposes, uses, and reimagining of NU’s evaluation of courses and instruction. Finally, in advance of the mid-July deadline to submit NU’s Higher Learning Commission Accreditation Assurance Review report, Lisa wrote the argument and structured existing evidence related to Criterion 4.B (i.e., outlining NU’s ongoing commitment to the assessment of students’ learning) and worked closely with the Provost’s office to review and edit the rest of the report.
Global Work

Lifecycles project

The University Strategy for the Undergraduate Student Lifecycle project is a multi-phase initiative the Provost has sponsored to develop a strategy and framework for a continuum of support for students who identify solely or jointly across first-generation, low-income and marginalized and underrepresented minority (URM) identities. The initiative supports University Priorities that outline a commitment to the student experience, diversity and inclusion, and ensuring that all students can thrive during their time at Northwestern.

Marina, Omari, and Bennett engaged in the University-wide Student Lifecycle Initiative, playing a role in both faculty and student-experience subcommittees. We envision Searle staff will be involved in the next phase of this project.
Grant Funded Projects

NSF-Sponsored Conference

With a $52,000 NSF grant (PI Marina Micari; co-PI Jay Sriram, Washington University), ASLA organized and hosted a national conference focusing on research in STEM academic support at the undergraduate level on May 30-31, 2019. The conference, titled Developing a National Research Agenda for Academic Support in STEM Higher Education, brought together approximately 100 learning-center professionals and faculty to explore the field of research in academic support and embark on developing individual research plans and a broad agenda for future research. Activities will continue with planned virtual meetings for this community, and a dozen small groups from the conference community are now engaged in research projects and mentoring relationships.

Postdoc Academy

Postdoc Academy is a comprehensive online and in-person professional development program which focuses on building postdocs’ skills to maximize their time as a postdoc and successfully transition into the next phase of their careers. Postdocs can enroll in the flexible online course and/or join a learning community with local postdocs. Postdoc Academy is supported by NIGMS 1R25GM121257 and is being developed by a multi-institutional team represented within the Searle Center for Advancing Learning and Teaching at Northwestern University, along with Boston University, Michigan State University, and University of Wisconsin-Madison.

Inclusive STEM Teaching

The Inclusive STEM Teaching Project is a multimodal program that will engage current and future STEM faculty in creating inclusive learning environments, advancing the learning experiences of undergraduate students nationally. The Searle Center for Advancing Learning and Teaching is one of five institutions that is participating in this five-year, collaborative grant from the National Science Foundation. We will feature a peer-reviewed online course, asynchronous and synchronous learning, and in-person learning communities. Our program will apply embodied case studies and improvisational dramatization to help participants develop awareness and understanding of social identity, power, and positionality in STEM education. We hope to inspire participants to challenge themselves in meaningful ways by critically and purposefully reflecting on their own practices, biases, and assumptions.
Searle Services

- 130 individual consultations with faculty, administrators and staff, related to learning and teaching, grant writing and assessment/evaluation: Anecdotal feedback and follow-up messages have indicated strong sense of faculty satisfaction and motivation to improve and change. However, we are in the process of implementing a follow-up survey to evaluate this activity more extensively.

- 40 Small Group Analysis (SGA) for faculty and graduate instructors were conducted by 14 graduate students: 8 in fall 2018, 17 in winter 2019, 14 in spring 2019, and 1 in summer 2019. SGA recipients regularly report high level of satisfaction and most make at least one change in their teaching based on student feedback.

- 20 Structured Observations of Teaching for faculty to provide feedback and guidance around improving their teaching, to positively impact student learning in that course and in other classes they might teach.

- 10 teaching observations for grad students and postdocs

- End-of-term specialized feedback: Courses with 5 or fewer students do not have CTECs. We conducted 3 end-of-term surveys and 1 end-of-term focus group so that faculty could still receive valuable anonymized feedback that will help them reflect on their teaching and make changes in the future.

- Robert E. Menges Library: We continue to add and curate our collection of over 1000 holdings (books, articles, journals, and DVD/videos) providing faculty, staff, graduate students, and postdoctoral fellows easy access to rich literature on learning and teaching.

- Searle Center Website: Our site serves as a significant resource to the Northwestern community and beyond by offering information related to our programming, offerings and services, as well as teaching resources and materials. Our website was mentioned as an important resource by a nationally recognized professional development society.
New Searle Staff Members

Lisa Davidson

In the Searle Center, Lisa supports the assessment of students’ learning across Northwestern’s academic areas, provides evaluation-related expertise for grant proposals, and collaborates on research related to learning and teaching. Over the years, Lisa has worked in a variety of higher education contexts, including educational research and assessment areas, academic advising, career development, and enrollment management. Lisa’s research interests include learning and developmental outcomes related to intercultural interaction, diverse learners’ construction of knowledge, and culturally inclusive theorization and measurement of students’ learning and development.

Olivia Chesniak

Olivia Chesniak is the Postdoc for the Postdoc Academy project. Olivia earned a BS in Chemistry from Lewis University (Romeoville, IL) and a PhD in Chemistry from Michigan State University (East Lansing, MI) with a focus on biocompatible nanomaterial synthesis. Olivia supports the Postdoc Academy through content development, workshop facilitation, and program evaluation.

Rob Hill

Rob Hill is a Postdoctoral Scholar in Graduate and Postdoctoral Learning. In this role, Rob coordinates and evaluates the Teaching Certificate Program and assists with various other initiatives supporting graduate students and postdocs as current and future educators. Rob received their Ph.D. in Higher, Adult, and Lifelong Education from Michigan State University this past May. At Michigan State, Rob supported curriculum and teaching initiatives in the College of Veterinary Medicine and Residential College in the Arts and Humanities. Their research centers on how individuals in higher education navigate dimensions of oppression and ideology, with three major foci: 1) neoliberalism in higher education, 2) teaching and curriculum, and 3) gendered and sexual violence.

Veronica Womack

Veronica is the Project Manager of Inclusive Learning. In this position she manages and contributes to the curricular content of the Searle Center’s multi-institutional Inclusive Teaching in STEM Education (IUSE) grant from the National Science Foundation. She also co-facilitates social equity initiatives for the Center. Veronica received her Ph.D. in Social Psychology from Howard University and postdoctoral training in cardiovascular epidemiology from...
Northwestern University Feinberg School of Medicine. She is an experienced facilitator and has implemented seminars on identifying and coping with racial microaggressions as well as reducing stereotype threat in learning environments. Her research interests pertain to coping strategy preferences for social identity-related stressors with a focus on microaggressions and ‘being the only one’. She incorporates mindfulness, intersectionality, health behaviors, and ‘safe space’ development into her research and workplace-based initiatives.

Caroline Freitag

Caroline works for the Searle Center as an evaluation specialist embedded in Northwestern’s NSF-Simon’s Center for Quantitative Biology (CQuB) as part of their collaboration with the Searle Center to evaluate CQuB’s training and education programs. In her position, Caroline leverages her doctoral training in neuroscience, participation in Searle’s Teaching Certificate Program, and experience creating and teaching new curricula as adjunct faculty in biological sciences and science writing at Benedictine University.
Searle Center Staff Members

Searle Center Director: Bennett Goldberg

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

**Faculty Initiatives Team**
- Susanna Calkins, Director
- Lisa Davidson*, Senior Assessment Associate
- Muveddet Harris, Program Associate
- Omari Keeles, Assistant Director for Diversity, Equity, and Inclusion
- Mi Liao*, Intern

**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
- Caroline Freitag*, Research Project Coordinator
- Sharisse Grannan, Assessment Associate
- Kate Schultz*, Research Associate
- 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
- Sarah White*, Research Associate

**Graduate and Postdoctoral Learning Team**
- Nancy Ruggeri, Director
- Kate Flom Derrick, Senior Program Coordinator
- Robert Hill*, Postdoctoral Fellow
- Lauren Woods, Assistant Director of CIRTL at Northwestern

**Grants Team**
- Olivia Chesniak*, Postdoctoral Associate
- Noah Green, IUSE consultant
- Veronica Womack*, Project Manager
- Sara Woods*, Grants Manager

**Consultants**
- Stephie Drucker*, Website consultant
- Erin Drugar*, Graphic Design consultant

*Joined during 2018–2019
Appendix: Academic Support and Learning Advancement (ASLA)

**ADDITIONAL PROGRAM PARTICIPATION & OUTCOMES**

**Drop-In Peer Tutoring**

Over the year, we had 1,986 tutoring sign-ins, with 75 peer tutors providing support. This represents 657 individual students.

**Who Takes Part?**

- 34% of visits are underrepresented students (African American/Black, Latinx, Native American) — compare to 25% in classes at large
- 63% of visits are female students (compare to 50% in classes at large)
- Mean SAT math (based on visits): 718 — compare to 733 in classes at large

**Outcomes**

Students surveyed (n=137) feel that Drop-In Tutoring

- helped them understand course material better (mean: 4/5 where 5=strongly agree)
- gave them a better sense of what they didn’t understand (4/5)
- helped them feel they weren’t the only one confused (4.2/5)
- helped them feel more comfortable seeking out academic help (4.2/5)

**Peer Academic Coaching**

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, 23 students received ongoing peer coaching. 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

- “My coach was honest with me. He did not just support everything I said. He challenged me and helped me see my problems from a different point of view.”
- “My coach has helped me stop cramming and start being smart with my study time.”
- “[Through coaching,] I’ve improved at keeping track of everything, structuring my time better, prioritizing, and planning.”
- “I would recommend coaching, especially for transfer students. It would be helpful to come in thinking about this program.”

**ASLA Peer Leader Training**

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 two quarters of SESP 291: Peer-Led Learning: Theory and Practice. Last year, 59 students took the course. Peer leaders in the other ASLA 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.

**Website and Academic Resource Portal**

The ASLA website is the central online resource for Northwestern undergraduates to learn about academic support available to them.

Over the 2018–19 year, the ASLA website had 12,208 users, and 18,018 sessions. There were 35,518 page views.

The Academic Resource Portal, which was revamped in the winter, had 5,900 page views in 2018–19. (This is a significant drop from last year, when we saw an unprecedented and very large spike, particularly on the page with advice on writing emails to faculty.)

**PROGRAMMING CHANGES**
We have made a decision to discontinue the Student-Organized Seminars (SOS) Training program, which had 14 participants in 2018-19. This program, which has existed since 2011, has supported undergraduates who lead student-organized seminars (SOSs) in the schools. While the program was appreciated by the student participants, it does not align well with the academic-support mission of ASLA, and ASLA’s resources should be put to use in support of that mission. We have communicated this change to the schools.
## Appendix: Graduate Student and Postdoc Learning

### Graduate and Postdoctoral Workshops, 2018-19

<table>
<thead>
<tr>
<th>Workshop Title</th>
<th>Date</th>
<th>Attendance</th>
<th>Average Rating</th>
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<tbody>
<tr>
<td>Writing Effective Teaching Statements: Getting Started</td>
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<tr>
<td>Writing an Effective Teaching Statement: Peer Review</td>
<td>11/6/2018</td>
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<tr>
<td>Will This Be on the Test?: Using Assessments in the STEM Classroom</td>
<td>11/7/2018</td>
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<td>Discussion-Based Teaching: Eliciting Conversation and Navigating Controversy</td>
<td>11/13/2018</td>
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<td>What's the Takeaway?: Lesson Planning for Student Centered Learning</td>
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<tr>
<td>Educational Technology in the Classroom</td>
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<tr>
<td>The Art &amp; Science of Engaged Lecturing</td>
<td>2/6/2019</td>
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<tr>
<td>Inclusive Teaching Strategies: From Design to Assessment</td>
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<td>Writing Effective Teaching Statements: Peer review</td>
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<td>Writing Effective Teaching Statements: Getting Started</td>
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<td>Using Clickers in the Classroom</td>
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<td>Writing Effective Teaching Statements: Peer Review</td>
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<tr>
<td>Encouraging Student Engagement with Course Evaluations</td>
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<tr>
<td>Keeping Your Students Engaged: Active Learning in STEM Classrooms</td>
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<td>Keeping Your Students Engaged: Active Learning in STEM Classrooms</td>
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<td>Writing Effective Teaching Statements: Getting Started</td>
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Conference Presentations


Flom Derrick, K. & Woods L. “Generating Reflective Teaching Statements through Generative Knowledge Interviews” 2018 POD Conference


Publications


