

Cover Page

Title of Area: Scholarly Teaching and Learning & Student Success Research Hub

Participating disciplines/academic units/departments

1. Center for Teaching and Learning
2. J. Murrey Atkins Library
3. Office of Assessment and Accreditation
4. College of Art + Architecture: Theater; Performing Arts Services
5. College of Computing and Informatics: Software and Information Systems
6. College of Education: Reading and Elementary Education; Learning Design & Technology
7. College of Health and Human Services: School of Nursing
8. College of Liberal Arts and Sciences: Psychology

Co-leads

1. Heather McCullough, Ph.D., Center for Teaching and Learning
2. Rebecca Croxton, Ph.D., J. Murrey Atkins Library
3. Kim Buch, Ph.D., Psychology

Target Category: Future Opportunity and Investment

Key Words (5): student success, faculty development, student engagement, scholarly teaching, data analytics

Executive Summary

This proposal suggests a **Future Opportunity and Investment area** through the creation of a **research hub and accelerator that brings together the many campus entities and individuals already engaged in research and scholarly activity promoting the university's core mission of teaching and learning and its primary goals of educational equity and student success.** First, the hub would serve as a clearinghouse and repository for data related to these outcomes that would seed and support new and existing research in the area, as well as inform best practices in pedagogy, faculty development, academic technologies, and academic support services. Second, the hub would lead cutting-edge cross-disciplinary research that intersects with regional and national priorities in higher education brought about by the COVID-19 pandemic and the current racial justice movement. Third, the hub would lead internal dissemination efforts that connect units with data and findings that can drive evidence-based best practices, as well as external dissemination of research results that contribute to the knowledge base while establishing institutional distinction in the area of scholarly teaching and learning. Finally, the hub would ensure ongoing communication and data-sharing among all university entities engaged in research and assessment of teaching and learning outcomes and practices, including but not limited to the Center for Teaching and Learning, J. Murrey Atkins Library, the Teaching & Learning Connection, the Office of Assessment and Accreditation, the Office of Academic Diversity & Inclusion, and academic departments and colleges. **In sum, our proposed hub would connect the disparate but related research activities of our partner units, while seeding and supporting new projects designed to attract external funding and build a national reputation in scholarly teaching and learning in higher education.**

There is a clear connection to UNC system goals and UNC Charlotte goals related to teaching and learning, student success, and educational equity in this proposed research hub. As the fastest growing institution in the UNC system and with a diverse student body, UNC Charlotte has an opportunity to learn and serve as a model for how to provide an inclusive quality education that meets the needs of all stakeholders as we begin to build a new, post-pandemic era in higher education. As the University of North Carolina Strategic Plan states: **“Teaching and learning constitute the primary service that the University renders to society.”** There is nothing more fundamental to the university than its ability to create and deliver educational opportunities for all its citizens. Our OIA is also aligned with the strategic goals of the Association of American Colleges and Universities (AAC&U), to: **Champion faculty-engaged, evidence-based, sustainable models and strategies for promoting quality in undergraduate education** and to **Advance equity across higher education in service to academic excellence and social justice.** Our proposed Future Opportunity and Investment area holds incredible potential to help the university and the broader higher education community understand how faculty development, faculty and student use of academic technologies, and student engagement with co-curricular services and resources intersect to impact student learning and student success. This knowledge is vital in shaping the next generation of responsive, adaptive, inclusive and effective teaching and learning practices for our institution, our system, and beyond.

Evidence of Strength and Excellence

Success and Collective Impact of the Group

This is a highly synergistic and complementary group of researchers and educators. The cross-disciplinary team has individual and collective research and grant success in the area proposed for this Research Hub. Please see our c.v.s for the full list of accomplishments and impact in this area.

In brief, the team members have secured over \$11 million in external funding, have numerous publications in the proposed Research Hub area, and have collaborated with each other on successful external grants and published peer-reviewed research.

Initiatives already underway by the team include the development of a data repository of student engagement data across many of the enterprise learning and student support systems. This will allow us to understand which engagement factors significantly contribute to student success, retention, and graduation rates at UNC Charlotte. There is a similar initiative around faculty development data as relates to student success and identifying and disseminating evidence-based best practices. Perez-Quinones and Martin currently have NSF-funded projects related to broadening participation in computer science. Martin is an award-winning online instructor and researcher on online education. In addition, Martin, Adams, Lynch, Croxton, and McCullough support the campus in promoting evidence-based best practices in online course design, specifically leading around Quality Matters as a faculty development program and “gold standard” for online course design.

To our knowledge, there is currently no centralized hub in the nation that promotes and facilitates student engagement and Scholarship of Teaching and Learning (SoTL) research using the data we are able to curate and share. This Hub will allow university leaders to identify patterns and critical areas of student engagement across the multiple systems used for instruction and student support. Our Hub has the potential to exponentially increase research related to student success that will, in turn, inform our own campus faculty and beyond. The data repositories will enable researchers to explore how student engagement within each of the partner units, along with pre-college and demographic variables, together help to promote student success by examining a variety of dependent variables. The repositories will also enable researchers to connect faculty professional development and use of academic technologies to student success. The Hub will also be an incubator for larger federal grants related to student success.

Strengths of the Collaborations

The members are accomplished SoTL researchers in their disciplines. They are leaders of evidence-based best practices in teaching and learning and have been held as exemplar teachers who strive to understand and promote practices that lead to student success. They have all received funding and produced peer-reviewed research in the SoTL, specifically including factors that lead to student success among diverse student populations and factors that contribute to success in online learning. The administrative faculty and staff on this proposal are leaders in the CTL, the library, and the Office of Assessment and Accreditation and are experienced in the area of faculty development and assessment of student engagement across the university.

McCullough, Croxton, and Moore hold Ph.D.s and Masters degrees in Information and Library Science. They are skilled and accomplished in driving collaborative partnerships across disciplines and at designing and providing research support services, including developing and maintaining data repositories and related services.

Specific Synergies and Impact

The team is composed of faculty and administrative leaders in faculty development, supporting institutional student success efforts, managing, analyzing, and sharing data, and championing Scholarship of Teaching and Learning research throughout their colleges and the university.

- **SoTL:** Heather McCullough, Kim Buch, Rebecca Croxton, Florence Martin, Tracy Rock, Susan Lynch, Dean Adams, Manuel A. Perez Quinones, Karen Singer-Freeman are accomplished and published SoTL researchers
- **High Impact Pedagogies and Supporting Success of Diverse Students:** Kim Buch, Manuel Perez Quinones, Florence Martin, Susan Lynch, Dean Adams, Heather McCullough, Rebecca Croxton, Karen Singer-Freeman
- **Data Analytics:** Rebecca Croxton, Florence Martin, Anne Cooper Moore, Manuel Perez Quinones, are accomplished in using data analytics
- **Data Repositories/Provision and Support for Data Repositories:** Rebecca Croxton, Heather McCullough, and Anne Cooper Moore are experienced and accomplished in setting up and managing Open Access data repositories
- **Online Teaching and Supporting Teaching and Learning During the Pandemic:** Heather McCullough, Dean Adams, Florence Martin, Susan Lynch, Rebecca Croxton
- **Faculty Development:** Heather McCullough, Kim Buch, Tracy Rock, Rebecca Croxton, Florence Martin
- **University Leadership:** (experience as Dean, Associate Dean, Department Chair, or Program Chair): Anne Cooper Moore (J. Murrey Atkins Library), Dean Adams (CoA+A), Susan Lynch (CHHS), Florence Martin (COED), Manuel A. Perez Quinones (CCI)

Additional resources needed to realize the potential of this Research Hub include funding for: 1) masters and doctoral students to develop research projects and to support the activity of the faculty researchers; 2) for masters and doctoral students to support the upkeep and regular ingest of data into the repositories; 3) for faculty fellows, post-doctoral researchers, and faculty researchers to develop and pursue research with available data; 4) to support data management and analysis, including developing data management plans for federal grants; 5) for dissemination of the research developed through the Hub; and, 6) for administrative support to the CTL and Atkins Library team administering the Hub

Group Contribution to Student Education and Research Training

This proposal includes opportunities for graduate students to engage in the longitudinal studies, data analytics, data repository management, and research activity outlined. Because of the vast data repository available and the support provided by the Research Hub team, university researchers and doctoral students in a variety of disciplines will find valuable resources for conducting research. There is significant potential for this Hub to become a resource for researchers within the UNC system and beyond.

Alignment

Our proposed **Opportunity and Investment Area (OIA)** aligns with regional and national priorities in higher education, while promoting the UNC System's and UNC Charlotte's mission and goals. Two national forces arising in 2020 are both necessitating radical change in higher education and shaping the direction of that change: the **COVID-19 pandemic**, and the **racial justice movement**. **Both of these forces intersect with our proposed OIA's focus on evidence-based best practices in teaching and learning that are equitable, inclusive, technology-enabled, flexible and responsive to a range of learners, teachers, formats, content domains, and learning environments.**

Our OIA is also aligned with the strategic goals of the Association of American Colleges and Universities (AAC&U), to: Champion **faculty-engaged, evidence-based, sustainable models and strategies for promoting quality in undergraduate education** and to **Advance equity across higher education in service to academic excellence and social justice** by (1) Building Evidence that supports the development of best practices within the higher education community and promotes faculty-led assessment of student learning and (2) Expanding Capacity by enhancing faculty and leadership development, identifying and bringing effective practices to scale, and implementing educational reforms. If funded, **our OIA will achieve its goals through aligned efforts of building evidence, expanding capacity, and informing change** that allows UNC Charlotte to help shape the post-pandemic landscape of higher education's teaching and learning mission, while promoting its institutional and system-wide mission.

According to the UNC System's Mission Statement, "It will take imagination — a willingness to develop new ideas for a new era. Educating elites is no longer the only game in town. In a complex and highly competitive knowledge economy, we must help more North Carolinians — particularly first-generation, low-income, rural, and underrepresented minority students who have historically lagged in college attainment — to achieve at much higher levels. That means thinking more creatively about how we reach new students and deliver a quality education that fits their needs." This mandate clearly cannot be met without **rigorous, ongoing research into our teaching-learning pedagogies, academic technologies, faculty development efforts, provision of curricular and co-curricular supports, and their impacts on student engagement and success**. Further, we need research that ensures that our practices are inclusive and are reaching diverse students with equal impact. As stated in the UNC System Plan, "We cannot tolerate gaps in opportunity (or impact) that hold back so many of our young people — not when North Carolina needs a greater diversity of talent. We cannot afford to neglect adult learners, veterans, and part-time students who need more flexible choices — not when our economy is demanding new skills and more adaptable careers."

Finally, as stated in the UNC Charlotte Academic Plan, achieving a leadership position in higher education requires that we "rigorously assess our progress toward our institutional, academic, and administrative plans using benchmarks appropriate to the goals articulated by our programs and in our plans." Our proposed research hub would contribute directly to this objective, through research that addresses complex questions into teaching and learning, that have potential for transformative impact in higher education.

Supporting Documents

Name	Title	Short Description of Expertise
Participating Faculty Members		
Heather McCullough, Ph.D.	Associate Director, Center for Teaching and Learning (Academic Affairs/CTL)	Lead faculty development in teaching and learning; oversight of the university's Quality Matters and Scholarship of Teaching and Learning programs.
Rebecca Croxton, Ph.D.	Professor, Head of Assessment (Academic Affairs/Atkins)	Leading a multi-unit/department project related to student engagement and success to include the library and 13 other partners from Academic Affairs and Student Affairs. The project has aligned student engagement data with pre-entry, demographic, and measures of student success from 2012-2013 to 2019-2020.
Kim Buch, Ph.D.	Professor of Psychology and CTL Faculty Fellow (CLAS)	Strong experience in faculty development and assessment of faculty development around teaching and learning. Prolific author in the area of Scholarship of Teaching and Learning (SoTL) and supporting SoTL research. Has secured significant external funding for student success and broadening representation among students in STEM.
Contributing Faculty Members		

Anne Cooper-Moore, Ph.D.	Dean of the J. Murrey Atkins Library	Co-leading a multi-unit/department project related to student engagement and success with Rebecca Croxton. The project includes the library and 13 other partners from Academic Affairs and Student Affairs. Co-PI for ACRL grant funded project related to student success and library value with Rebecca Croxton (see above).
Florence Martin, Ph.D.	Professor of Learning, Design, and Technology (COED) www.florencemartin.net	Educational Technologist. Leads projects on digital learning and online education. Award-winning online instructor and researcher on online education. Program Coordinator/Director of Learning, design and technology, Ed.D. doctoral concentration and University and College Teaching Post-Master's Certificate. Advisory Council Member for North Carolina Virtual Public Schools. Associate Editor for Online Learning Journal.
Manuel A. Perez Quinones, Ph.D.	Professor of Software and Information Systems (CCI)	National leader for Broadening Participation in Computing efforts with focus on student engagement. Managed mentoring programs & undergraduate research programs at multiple institutions. Created advising center in CCI. Directed office of Diversity Initiatives at Graduate School at Virginia Tech. Research in CS Education, co-creator of multiple tools for CS Education.

<p>Susan H. Lynch, PhD, MSN, RN, CNE</p>	<p>Associate Director, Undergraduate Programs & School of Nursing Operations Clinical Associate Professor (CHHS)</p>	<p>My experience in higher education began in 1997 in a community college system and then continued in 2006 when I joined UNC Charlotte. Currently, as Associate Director for the School of Nursing I oversee two undergraduate programs which serve over 300 students. With a combination of both traditional on campus and online programs I am well versed in higher education pedagogy and student success. I designed the first online course in nursing at a SC community college in 1998 and have since designed multiple online courses at UNC Charlotte with two courses receiving Quality Matters designation in 2015 and 2016. Since 2018, I have been a Quality Matters Peer Reviewer and was appointed as a Quality Matters Faculty Fellow. Also, our College created a Distance Education Hub committee in which I was appointed the director. In these roles, I have reviewed multiple courses in pursuit of Quality Matters recognition and mentored many faculty in the development and facilitation of online courses. Finally, I was awarded an internal grant in 2016 to study student outcomes in</p>
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<p>Dean Adams</p>	<p>Associate Dean and Professor, College of Art + Architecture</p>	<p>QM Faculty Fellow 2014-present. Work with Distance Education and Center for Teaching and Learning to deliver Quality Matters programming and to assign internal reviews to an Associate Fellows group of 12-20. Quality Matters Master Reviewer and APPQMR (online and F2F) and DYOC facilitator. Deliver QM content to UNCC and System faculty. Member of UNC System QM Council. Member of General Education Task Force. As an Associate Dean, I contribute to the long-term aspirational goals of my College and the University in the realm of student success.</p>
<p>Tracy Rock, Ph.D.</p>	<p>Professor of Reading and Elementary Education and CTL Faculty Fellow (COED)</p>	<p>As a Professor of Elementary Education and Faculty Fellow for the Center for Teaching and Learning (CTL), I provide professional development workshops, individual faculty consultations and peer observations to enhance active student engagement in both online and traditional learning environments at</p>

		<p>UNC Charlotte. I lead, design, and supervise doctoral candidates in coursework and internships to develop their skills in college teaching in the CATO College of Education and across the campus. I am the recipient of the highest level of teaching awards at both the University and UNC System level. Currently, co-leading the Research Visioning Team and a member of the Research in Pedagogy, Instructional Effectiveness, and New Tools for Teaching Team for the CTL.</p>
<p>Karen Singer-Freeman, Ph.D.</p>	<p>Director of Academic Planning and Assessment, Office of Assessment and Accreditation</p>	<p>Expertise in grant writing and management, program evaluation, and scholarship of teaching, learning, and assessment. Extensive publications on educational interventions that support increased equity.</p>