

**Mentoring Strategies to Enhance Learning and Teaching: Building a Transdisciplinary Study to Foster High-Impact Learning through the Lens of Ignatian Pedagogy**

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### **Abstract**

Mentoring, or the formation and development of professional relationships in order to collaboratively share and produce knowledge is a common practice throughout academia that transcends academic disciplines. However, minimal research has explored the factors that are related to successful mentoring outcomes in academia. The present research proposal aims to advance our understanding of the multifactorial components that support successful mentoring relationships within the Jesuit context of Loyola University Chicago. Over the past two years, our interdisciplinary research team (Dr. Rebecca Siltan, Dr. Patrick Green, and Dr. Jessica Horowitz) collected pilot data regarding research practices that are occurring across academic disciplines at Loyola University Chicago; however, additional funding is needed to support data analysis and dissemination. Thus, the primary aims of the present research proposal are to analyze the pilot data and disseminate the results within the Loyola community and beyond. We hope that this research will specifically influence the Loyola community and promote conversations leading toward identifying ‘best mentoring practices’ across the university. Implications from this study will inform faculty development programming and student academic support services and programming. We envision that this research area and related dialogue will shape the university as a model for ‘best mentoring practices’ and help place Loyola University Chicago in the forefront of this vitally important skill. Mentoring occurs organically at all levels of an academic institution, and we anticipate that our research will assist in supporting these critical relationships.

## **Mentoring Strategies to Enhance Learning and Teaching: Building a Transdisciplinary Study to Foster High-Impact Learning through the Lens of Ignatian Pedagogy**

Mentoring, or the formation and development of professional relationships in order to collaboratively share and produce knowledge (Bland et al., 2009) is a common practice throughout academia that transcends academic disciplines. Mentoring relationships are often thought to be beneficial to both the mentor and mentee (Detweiler-Bedell et al., 2016). When mentoring is done well, it has the potential to offer a transformative educational experience that teaches about the complexities in the world and in relationships. The act of mentoring can inspire hope, and promote social justice. When the mentoring relationship fails, it can lead to disenfranchised cynicism and ultimately a breakdown in progress and growth for all involved. The stakes in mentoring in academia are high, and it is critical to develop an evidenced-based understanding regarding the processes that support best mentoring practices. However, minimal research has explored the factors that are related to successful mentoring outcomes in academia. The interacting components that support success in mentoring likely range from institutional environmental factors to dynamic interpersonal factors and no doubt factors in between. The present research proposal aims to advance understanding of the multifactorial components that support successful mentoring of undergraduate and graduate students within the Jesuit milieu of Loyola University Chicago.

Given that the Ignatian learning environment is built around a deep understanding of context, experience, reflection, action, and evaluation, the Jesuit learning context provides an ideal framework through which to understand the process of mentoring. Previous research on mentoring provides a number of models of mentoring, rooted in relationships (Crisp, 2009; Huizing, 2010). Mentoring involves the formation of relationship among two individuals who often have very different contexts (i.e., different generations, genders, ethnicities, abilities,

religions, personal histories, political beliefs, etc.) with the common goal of advancing education through experiential learning. Mentoring leads to intersecting contexts, and through exposure to one another and in conversation, understanding of the complexities of contexts begins to emerge. Understanding these complexities is critical to becoming a force of social change and justice.

Through the uniqueness of the academic mentoring relationship, mentoring involves hands-on transformative experiences for students that involves fostering critical thinking skills, creativity, collaboration, and communication (Detweiler-Bedell et al., 2016). While the nature of mentoring experiences ranges across the disciplines, first-hand exposure to academic content paired with space for reflection about these experiences with one's mentor, and reflective evaluation regarding process and progress from one's mentor can lead the mentee to future action. Furthermore, mentoring in the context of undergraduate research as a High-Impact Practice deepens learning through the mentoring relationship (Kuh, 2008). Successful mentoring outcomes have the potential to not only transform the mentee, but also those that are influenced by the mentee as she/he moves forward with intention in her/his future career. Mentoring is an act of teaching and learning; it is an act of social justice when academic institutions create equitable access to mentors and provide opportunities for marginalized populations to be mentored. Thus, it is imperative to advance our understanding of the factors that support and nourish these critical, formative mentoring relationships.

Over the past two years, our interdisciplinary research team (Dr. Rebecca Sifton, Dr. Patrick Green, and Dr. Jessica Horowitz) collected pilot data regarding research practices that are occurring across academic disciplines at Loyola University Chicago from the perspective of faculty research mentors. The pilot data collection procedures were approved by the Institutional Review Board (IRB), and involved a focus group method. Using focus groups, we collected data

from 25 faculty members across academic disciplines. The focus groups were recorded with digital audio recorders and the recordings were transcribed by a trained research assistant. Regular debriefing meetings were held with the research team to identify emergent themes. Some initial faculty focus group themes emerged around limited student access to research opportunities on campus, including the specific concern that students who come from socio-economic status backgrounds, may have fewer opportunities to directly access academic mentors. Other identified themes revolved around concerns regarding differing faculty reward structures across the institution, identifying strategies for improving mentoring techniques, and the desire for more consistency among faculty expectations for mentoring.

We also obtained IRB approval to collect pilot survey data from students who have been involved with the well-established Loyola Opportunities in Undergraduate Research Program (LUROP). LUROP includes 300 funded fellowship opportunities for undergraduate students participating in research with a faculty/graduate student mentor. The primary aim of the pilot study was to work toward identifying some primary characteristics of good mentoring in undergraduate research that enhances student learning. Initial quantitative data analyses of the survey data suggest that specific mentoring behaviors contribute to student learning outcomes. For example, regular face-to-face meeting time with mentors is significantly related to the mentees' ability to learn research methodologies and apply this knowledge beyond the walls of academia. We plan to contextualize our findings within the Scholarship of Teaching and Learning (SOTL) framework, drawing from the work of Hutchings and Shulman (1999), "But the scholarship of teaching can also make a place for 'what' questions – questions in which the task is not to 'prove' but to describe and understand an important phenomenon more fully . . ." (pp. 14-15). We aim to make connections to social justice through more thoroughly exploring

access and equity to academic mentoring. Our research team is concerned that issues around access and equity may arise since our qualitative and quantitative data suggest that many mentors in the sciences expect their students to volunteer 10 - 20 hours per week in their laboratories. Students who need to work full time in order to support themselves may not have the opportunity to also take on volunteer research positions in laboratories, and thus are unable to gain access to and benefit from an academic mentoring relationship.

The initial analyses from our qualitative and quantitative pilot data offer novel findings that are important with regard to advancing the dialogue around evidenced-based approaches to supporting academic mentoring relationships. We presented initial findings from our focus group work at the University of New Mexico Mentoring Institute Conference in October 2015, and have been invited to join members from other academic institutions in conversation about mentoring at the upcoming Mentoring Summit (October, 2016) hosted by Northwestern University. However, additional work is needed to fully harness and disseminate the knowledge that can be yielded from these rich data sets. Support for these initial waves of pilot data collection and dissemination was pieced together from various sources of funding which have since expired.

In order to advance our qualitative and quantitative research, we are seeking additional funding to support our research efforts in identifying factors that support successful mentoring characteristics in practice and learning outcomes within the Jesuit context of Loyola University Chicago. If we receive additional support from the Ignatian Pedagogy Research Grant, we plan to expand our literature review, continue conducting data analyses using our pilot data sets, develop manuscripts for publication, and seek external funding to expand the findings from our pilot data. Support from the present grant would be used to provide funding for a graduate

student to assist with data analyses, literature review, and preparing the data for publication. Our long term aim is to use evidenced based approaches to identify factors that support successful mentoring relationships, and we anticipate using findings from our research to develop an evidenced-based training plan and provide resources in order to support and guide academic mentors in their efforts to provide transformative educational environments rooted in the principles of ignatian pedagogy, as well as to support policies to help ensure that students from diverse backgrounds have access to academic mentors.

The proposed research project represents a collaborative endeavor drawing on knowledge from psychology (Dr. Silton) and education (Drs. Green and Horowitz) in order to inform the multifaceted aspects of the development of healthy and productive academic mentoring relationships. Rebecca Silton (PI) frequently interweaves principles from ignatian pedagogy into her course curriculum and ignatian pedagogy influences her approach to research mentoring in her well-being and emotion laboratory. As such, Dr. Silton's work was highlighted via the "spotlight on teaching" page on Faculty Center for Ignatian Pedagogy website. Additionally, she has received the master Sujack teaching award at Loyola for embodying Jesuit principles in higher education. She has presented aspects of her pedagogical work at Focus on Teaching and Learning (FOTL) workshops as well as other events sponsored by FCIP. The co-investigators also have extensive experience with ignatian pedagogy. Dr. Green has facilitated numerous faculty development programs related to ignatian pedagogy, he has completed an ignatian pedagogy seminar at Loyola University Chicago, and he has presented on the principles of ignatian pedagogy to other Jesuit Universities. In his work as the director of the Center for Experiential Learning, he strives to connect the work of community-based learning/service learning to ignatian pedagogy, and has presented his work on this topic at numerous research

conferences. Dr. Horowitz, as Associate Dean for the Graduate School, has created and implemented a research mentoring program designed for Graduate students to serve as mentors. As part of graduate students' training and adherence to Ignatian pedagogy practices, the Graduate School provides teaching effectiveness seminars for first-time teachers of record. The Research Mentoring Program provides a similar focus as part of undergraduate research mentoring.

### **Statement of Individual, Programmatic, and Institutional Impact**

We plan to use the budget from this award to support (and mentor) an advanced graduate student who will be instrumental in conducting data analyses and a thorough literature review. This will provide funding and training for a graduate student who has a deep interest in this area of research. This research will certainly have an impact on all of the investigators' understanding and adherence to best practices of mentoring. That said, this research will potentially have a much wider impact on the Loyola community more broadly, and allow greater conversations leading toward 'best mentoring practices' across the university. Implications from this study will inform faculty development programming and student academic support services and programming. We envision that this research area and related dialogue will shape the university as a model for 'best mentoring practices' and help place Loyola University Chicago in the forefront of this vitally important skill. Mentoring occurs organically at all levels of an academic institution, and we anticipate that our research findings will assist in supporting these critical relationships.



**Timeline and Dissemination Plan**

We plan to spend four months on qualitative and quantitative data analyses and conducting in-depth literature review to identify evidenced-based practices that support successful mentoring outcomes. Following completing of data analyses and literature review, we will write up manuscripts that we will submit for publication, and will plan to present our findings at the University of New Mexico Institute for Mentoring Conference in Fall 2017 so that we can reach a national audience, and we will also present our findings locally at FOTL and FCIP events. Based on the results of the proposed project, our research team will begin delineating the next steps to identify future data collection and sources of funding to continue to move our transdisciplinary research forward.

### Works Cited

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