### Background

- Research collaboration is a vital component of academic success, fostering resource sharing and interdisciplinary breakthroughs
- A comprehensive survey captured common research interests, the frequency and quality of scholarly interactions, and areas where potential collaborations are lacking
- Objective was to investigate how social network analysis (SNA) can serve as a powerful tool to discover hidden patterns in research collaboration within the ISLT department at Florida State University
- By mapping the connections among graduate students and faculty using carefully constructed sociograms, the study identifies both the strengths and gaps in existing collaborative practices.
- The analysis focuses on identifying common research interests, the frequency and quality of interactions, and highlighting areas where potential collaborations are absent
- Preliminary findings provide a clear picture of current research partnerships, setting the stage for data-driven recommendations to enhance communication and collaborative efforts.
- Conclusions from this study are intended to benefit all academic institutions by offering data-driven recommendations for enhancing the communication/collaboration within their respective departments
- Aim to contribute to the evolution of academic collaboration through targeted strategies in an era where interdisciplinary partnerships are increasingly essential

### **Results/Significance**

- Analyses reveal that collaborative efforts are concentrated around a few pivotal "hub" individuals, who act as connectors between newer and more experienced researchers
- The degree distribution (average number of connections) reported in Cohort 4 was 1.353 for Collaborations, 2.875 for Scholarly Interests, and 3.259 for Topical Interests
- Some respondents reported no collaborative activity while the majority listed a few collaborators—primarily these central hubs—indicating a heavy reliance on a small group
- Many participants share scholarly interests with peers, establishing an informal support network that can evolve into formal collaborations
- There is high interest in boosting collaboration, though satisfaction with current efforts varies, highlighting untapped potential for stronger partnerships and resource sharing
- Understanding the disparity between expressed collaboration interest and actual engagement signals a need for cultural and structural shifts within the department
- Highlighting shared research interests provides a foundation for interdisciplinary initiatives that can lead to novel research approaches and breakthroughs

•This study creates a baseline of collaboration practices within the ISLT program, allowing for future comparisons to measure the effectiveness of new initiatives and interventions over time.

### Enhancing Collaborative Research in FSU ISLT: A Social Network Analysis of Research Partnerships Sania Vanessa & Jaden Manevich and Vanessa Dennen





Cohort 4 Collaboration Interests



Cohort 4 Scholarly Interests



Cohort 4 Topical Interests 2-Mode Network

#### Methods

#### • Participants

- were free to withdraw at any time
- All responses were anonymized to protect privacy and sensitive information
- Materials/Measures

  - and their perception of the department's current state of collaboration
- Procedures
- It was accessible for two weeks and could be completed using various devices
- on a secure, password-protected server.
- Data Analysis
- Descriptive statistics summarized participant demographics and collaboration frequencies
- suggestions for improvement)
- the department

#### **Future Directions**

- interests and facilitate new collaborations
- resource-sharing among cohort members
- foster guidance and expand research partnerships
- and promoting co-authorship opportunities
- cohort interactions, and help secure funding for collaborative projects
- adjust initiatives for maximum effectiveness

### Resources (Required poster section)

Understanding Classrooms through Social Network Analysis: A Primer for Social Network Analysis in Education Research Daniel Z. Grunspan,\* Benjamin L. Wiggins,† and Steven M. Goodreau\* \*Department of Anthropology and †Department of Biology, University of Washington, Seattle, WA 98185 Exploring and Understanding Relationships Maryann M. Durland

#### FSU **UNDERGRADUATE RESEARCH OPPORTUNITY PROGRAM** UNDERGRADUATE RESEARCH & ACADEMIC ENGAGEMENT

• Study involved graduate students and faculty from the ISLT department at Florida State University • A total of 64 participants were recruited and grouped into four cohorts (12–20 participants per cohort) • Participants were invited via email and departmental announcements, provided electronic consent, and

• An online survey was designed to gather quantitative and qualitative data on collaboration patterns • The survey was pilot-tested with a small group of graduate students to ensure clarity and relevance • Survey content included: demographics, frequency of collaborative activities, scholarly/topical interests,

• An invitation email containing the survey link was sent to potential participants with the survey • Institutional Review Board approval was obtained prior to data collection and all collected data was stored

• Completed survey responses were downloaded and organized and a codebook was created for both numeric and open-ended responses; the incomplete ones were used if at least 70% was answered

• Open-ended responses were coded to identify common themes (e.g., barriers to collaboration,

• The qualitative themes were combined with the SNA metrics to illustrate how collaboration occurs within

• Organize topic-specific workshops and networking sessions to connect individuals with similar research

• Develop or adopt online tools (e.g., dedicated forums or collaboration apps) to enable continuous dialogue and

• Establish formal mentorship initiatives that pair less-connected participants with central "hub" individuals to

• Encourage faculty to proactively reach out to students and colleagues by hosting open research group sessions

• Advocate for dedicated administrative resources that nurture a research-friendly environment, facilitate inter-

• Implement periodic surveys and focus groups to monitor collaboration trends, identify emerging barriers, and

# Old Version

# • Abstract: This study examines the transfer of knowledge in an academic setting, particularly emphasizing the interactions between professors, doctoral candidates, and undergraduate students at Florida State University and in

Tallahassee. Through social network analysis, it reveals links and patterns between people and ideas, providing insights that conventional cohort-based studies could overlook. This method seeks to provide a more thorough comprehension of the flow and exchange of knowledge within the academic community. The results of this study will illuminate how researchers, instructors, and students engage and communicate at various academic levels. By identifying important people and the channels by which ideas are exchanged, social network analysis makes it feasible to identify the unseen processes influencing scholarly activity. Understanding these relations that encourage better teamwork, information exchange, and university academic networks. This study is important because it emphasizes the importance of examining knowledge exchange outside of conventional frameworks and provides fresh approaches to helping teachers and students. In the end, this study advances a more comprehensive understanding of academic settings by highlighting the interdependence of people and ideas in advancing knowledge. The project's mapping of these networks aids in determining methods to enhance cooperation and communication, which benefits the academic community as well as the educational process as a whole.

## • Methods: The research team will thoroughly review existing literature, along with data transformation and analysis utilizing social network analysis (SNA) and data visualization methods. The literature review aims to establish a

foundational understanding of current theories and frameworks about academic knowledge-sharing, and formatting raw data to ensure the analysis is accurate and consistent. SNA, a robust methodological tool frequently employed in social sciences and other professional fields, will facilitate the exploration of relationships between individuals and ideas, illustrating how knowledge circulates within academic settings. The research will provide insights into how students, faculty, and researchers connect and collaborate by pinpointing key nodes, clusters, and patterns within the network. Furthermore, data visualization techniques will be employed to effectively represent these findings, making intricate relationships easier to understand. This holistic approach will enable a more profound understanding of academic interactions, emphasizing influential figures, possible obstacles to knowledge-sharing, and opportunities for enhancing collaboration. The research team will thoroughly review existing literature, along with data transformation and analysis utilizing social network analysis (SNA) and data visualization methods. The literature review aims to establish a foundational understanding of current theories and frameworks of academic knowledge-sharing and network structures. Data transformation will consist of cleaning, organizing, and formatting raw data to ensure the analysis is accurate and consistent. SNA, a robust methodological tool frequently employed in social sciences and other professional fields, will facilitate the exploration of relationships between individuals and ideas, illustrating how knowledge circulates within academic settings. The research will provide insights into how students, faculty, and research will provide insights into how students, faculty, and research will provide insights into how students. data visualization techniques will be employed to effectively represent these findings, making intricate relationships easier to understand. This holistic approach will enable a more profound understanding of academic interactions, emphasizing influential figures, possible obstacles to knowledge-sharing, and opportunities for enhancing collaboration

partnership within the group was apparent but only remains potential for now, as it hasn't come to fruition yet. Despite strong interest in faculty collaboration, many haven't engaged with ISLT professors or do not attend research groups, indicating the need for more structured networking or mentorship opportunities. Interestingly, informal discussions already occur within the cohort, but formalizing such support could foster better work output.

surveying students and faculty about their research activities, collaboration patterns, and scholarly interests, the study seeks to define the ISLT research network. This involves identifying existing connections between individuals, uncovering potential research based on shared expertise, and understanding the overall collaborative landscape within the program. The goal is to use these insights to identify and foster research productivity, enhanced interdisciplinary initiatives, and a stronger sense of community among ISL

• Results: While participants largely want to collaborate, actual engagement ranges from highly active (attending research groups or co-authoring) to minimal or nonexistent. Through analyzing the responses to various questions, the want for more

