

MARCH 2023

Student Experience Research Network (SERN; formerly Mindset Scholars Network) worked from 2015 to 2023 to cultivate and bring greater attention to research on how structures (i.e., practices, policies, and norms) shape students' experience of respect as valued people and thinkers in school. In partnership with a community of 42 researcher members ("SERN scholars") and over 500 actors across research, practice, policy, and philanthropy, SERN bridged long-standing silos to build and mobilize practically relevant research knowledge. This document was developed as part of SERN's strategic sunset in 2023 with the intention of sharing lessons from our work that we believe will be useful to others in the field.

This document is designed for individual researchers, research societites and professional organizations, and research funders interested in supporting the development of early career scholars (e.g., graduate students, postdocs, pre-tenure faculty). While some of the principles contained in this document are generally applicable to the development of early career staff across contexts (e.g., industry, policy, practice), its focus is primarily on academia. The principles, takeaways, and examples shared below are informed by SERN's work organizing two early career fellowships, welcoming early career scholars into SERN's annual scholarly convenings and other research meetings, and designing requests for proposals (RFPs) that explicitly asked how early career scholars would be developed as members of the project teams (see our <u>2019 RFP</u> and <u>2022</u> <u>RFP</u>). We also created a small grant program that provided funds to graduate students and postdoctoral fellows to

EXAMPLES AND RESOURCES LINKED IN THIS BRIEF

- SERN's <u>2019 RFP</u> and <u>2022 RFP</u>, highlighted to show content related to opportunities for early career scholars' development
- SERN Midcareer Fellows Program call for applications
- <u>Presentation</u> for early career fellows on engaging with unfamiliar literature and bridging across disciplines
- Materials about the SERN Midcareer Fellows Program, which describe the fellowship's design and takeaways from the program

We wish to acknowledge the <u>Student Experience Research Network team</u> and the early career scholars, fellowship faculty directors, advisors, mentors, and organizations with whom we partnered. We thank our reviewers Sapna Cheryan, Lindsay Page, and Carolyn Trager Kliman, whose feedback on earlier drafts greatly improved the depth and utility of this piece. The content remains the sole responsibility of the authors and Student Experience Research Network.

student experience

This work is licensed under a <u>Creative Commons Attribution-NonCommercial-NoDerivatives</u> 4.0 International License. support pilot data analyses of existing data during 2021 when new data collection was challenging due to the COVID-19 pandemic. Finally, our perspective is informed by our experiences organizing the SERN Midcareer Fellows Program which, while focused on midcareer scholars, provided us with an opportunity to reflect on investments in scholars' development and leadership over the course of their careers.

The early career stage is a crucial time in scholars' development, and we chose to focus on this stage for a variety of reasons:

- Early career scholars' career trajectories and research interests are not yet crystallized so the way they conduct and approach research may be more open to integrating new perspectives.
- The earlier scholars are exposed to the perspectives of policy and practice in their careers and understand the value of interdisciplinarity, the easier it may be for them to incorporate these learnings into future work.
- Early career scholars are deeply involved in the work of research and thus have more opportunities to apply new methods and understanding of theory.
- Early career scholars can share learnings with more senior scholars who serve as their mentors and advisors and help shape the research conducted in their research groups.

Across SERN's work supporting early career scholars, we used the following guiding principles. Below, we share insights, strategies, and examples related to each principle.

- 1. Use structures (e.g., communication, relationshipbuilding, feedback opportunities) to facilitate psychological safety, trust, and a learning orientation.
- 2. In longer-term engagements such as fellowships, provide experiences, skills, and perspectives that are responsive to the participants' context and aspirations, and leverage partnerships to enhance learning opportunities.
- 3. Provide authentic opportunities for early career scholars to demonstrate leadership.
- 4. Support early career scholars in developing and deepening professional relationships with both mentors and peers.

1. What structures can help facilitate psychological safety, trust, and a learning orientation?

Set the foundation for an authentic learning orientation through early communications and engagement.

Application and recruitment processes for fellowships and other initiatives, as well as initial emails and meetings, are important opportunities to signal an orientation toward growth and learning. For example, the design of the

SERN Midcareer Fellows Program call for applications

offered all applicants the choice of receiving feedback on their application; such feedback conveys an authentic learning orientation and can support continued professional growth for the recipient. Responsiveness in addressing initial questions from invitees, applicants, or awardees, as well as seeking and acting on their early feedback can also reinforce these values.

Create sufficient time and supportive structures to develop trust. Although people across career stages can find it challenging to be vulnerable among their peers and with other leaders in their field, this dynamic can be particularly difficult for early career scholars given the power dynamics and hierarchies in academia. Taking time to create a foundation of trust and safety is important to ensuring that early career scholars can ask for what they need and focus on learning rather than performing. Beyond the time itself, it is important to build in structures that facilitate norming, aligning, and sharing feedback, particularly when early career scholars are building new skills.

For example, the Inclusive Mathematics Environments Early Career Fellowship asked fellows to engage with unfamiliar literature and <u>unpack disciplinary differences</u> to bridge to other disciplines. To support this new skill development, fellows had one-on-one conversations with the fellowship director about bridging. Structuring these as one-on-one conversations, rather than small or full group discussions, allowed fellows to take more of a learning stance and be vulnerable in ways that might be challenging before trust was built with the full group. It also allowed the fellowship director to speak to each individual's starting point and context, and learn more about them early in the fellowship.

In another example from this fellowship about establishing good working relationships, the fellowship leaders provided detailed written feedback on fellows' deliverables. They devoted extensive time to thinking deeply about fellows' arguments, engaging with their work, and noting areas of strength in their deliverable as well as identifying actionable next steps to improve their argumentation and interdisciplinary bridging.

Fellows received this feedback several months into the fellowship, after they participated in other structures designed to create an environment of learning and trust, including meeting with their mentors, participating in writing seminars, and joining small group and one-onone conversations with the leadership team. This initial relationship-building and the opportunities to learn more about fellows and their research interests were important scaffolds to both developing and receiving this kind of feedback.

Additionally, the leadership team (i.e., faculty director, fellowship director, and two additional faculty serving in leadership roles) met regularly in different configurations, which built trust among the leadership team and contributed to a better experience for fellows. The Inclusive Mathematics Environments Early Career Fellowship included small group and one-on-one relationship-building among fellows and the leadership team, structured mentorship, and upfront programming about writing and unpacking disciplinary differences. These were important scaffolds to build trust and safety before fellows received detailed feedback on their work in new skill areas.

Build in time and opportunities for social connection.

Building in opportunities to connect personally as well as professionally in structured ways (e.g., using icebreakers at meetings, organizing a dinner at a conference) can contribute to a supportive learning environment for early career scholars. This is true both for building social connection among fellows as well as with other actors.

For example, SERN organized a dinner for fellowship participants and leaders who were all attending the same conference, and another group of fellows was invited to attend a dinner with the SERN scholar community at SERN's annual scholarly convening, which helped to build connections with a broader, influential group of scholars. These opportunities for social engagement and learning about each other personally and professionally can potentially enable longer-term partnerships.

2. How can longer-term engagements such as fellowships be responsive to participants' context and aspirations?

Design for early career scholars' specific incoming skillsets and learning goals. It is important to understand the incoming skills, experiences, motivations, and interests of fellowship participants as well as the objectives you are hoping to achieve in order to develop an arc of learning that is tailored to the specific people engaged in this work.

While a more generic approach might be easier to design and implement, we found significant benefits to a more tailored design. Understanding the dynamics, incentives, and context in academia also helped staff navigate these realities and know what experiences, skills, and perspectives would benefit early career scholars throughout their careers.

For example, the Inclusive Mathematics Environments Early Career Fellowship leadership team surveyed fellows early on to capture information on topics such as how they learn best, what they were most excited about and most concerned about regarding the fellowship, where they felt they would grow the most through the fellowship, which relevant skills they most hoped to improve, what incoming skills and strengths they hoped to leverage, which content areas they wanted to focus on, and what supports they needed from their mentor.

These <u>materials about the SERN Midcareer Fellows Program</u> contain information about how the program was coconstructed with participants and provide takeaways that can inform related efforts (including those that are less resource intensive).

Engage partners to enhance participants' learning and support relationship-building. Partners can supply complementary expertise to help create a more holistic learning arc for early career scholars. It is important to assess what capacity is needed for an initiative, beyond the capacity of the primary organizer (e.g., subject matter expertise, facilitation, event design skills) and identify and engage partners accordingly.

- SERN hosted the National Study of Learning Mindsets (NSLM) Early Career Fellowship in partnership with the University of Texas at Austin's Population Research Center so fellows could use NSLM data to research ideas about mindset science in education contexts. This partnership meant that University of Texas at Austin's Population Research Center staff familiar with the data set had time set aside to assist fellows with accessing and analyzing the data, bringing important subject matter expertise and capacity to the fellowship. We also engaged SERN scholars in mentoring and consulting roles to fellows, which expanded fellows' networks and provided opportunities to receive feedback from these scholars.
- SERN worked closely with a more senior faculty director and two assistant professors to design and execute the Inclusive Mathematics Environments Early Career Fellowship, buying out a portion of their time during the academic year. The faculty director co-designed and co-led core aspects of the fellowship programming, and the two assistant professors provided detailed feedback to fellows on their drafts given their deep subject matter expertise.
- This <u>summary presentation about the SERN Midcareer</u> <u>Fellows Program</u> contains information about how SERN leveraged partnerships with a research-policy bridging intermediary and a consulting firm with expertise in building equity-centered learning communities in describing the fellowship's design, learning arc and target outcomes, and both academy- and policyfacing deliverables. These partners contributed to the overall fellowship design, led multiple sessions with fellows, and supported the design and facilitation of community spaces.

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3. What are authentic opportunities for early career scholars to demonstrate leadership?

Leverage existing academic structures. SERN leveraged traditional research structures to send important signals

about the inclusion and development of early career scholars. In our context, traditional research structures such as manuscript authorship, poster sessions, conference presentations, fellowships, and grants are the currency that confer important experiences and add to early career scholars' CVs.

- RFP design: SERN-developed RFPs (see our <u>2019 RFP</u> and <u>2022 RFP</u>) explicitly asked principal investigators to name how early career scholars would have opportunities to substantively contribute to the project. In these projects, we saw that early career scholars led meaningful components of research projects, served as first authors, and gained other important professional experience.
- Authorship and preprints: Fellows had opportunities to serve as first authors on manuscripts that were posted to a preprint repository, which helped to build their CV, model best practices in open science, and highlight new, equity-centered scholarship.
- Poster sessions: Some of SERN's annual scholarly convenings included poster sessions for early career scholars to share their research, which was important for building authentic leadership opportunities and helping to raise their professional profile among the more established scholars in attendance.
- Funder meetings: Similarly, fellows had opportunities to share their in-progress research with funders and more senior scholars, which built important name recognition and relationships with these gatekeepers.
- Fellowships and grants: Calling a funded professional learning program a "fellowship" or calling a small award of \$3,000 for short-term data analysis a "grant" was also important in creating high-value fodder for early career scholars' CVs, while materially supporting their ability to take part in the work.

Leverage facilitation to create authentic leadership opportunities. Facilitation sends signals about whose voices are important. Light-lift facilitation moves like explicitly encouraging questions from early career scholars and making a point to prioritize their questions in spaces shared with more senior scholars can allow early career scholars to demonstrate leadership.

4. What might it look like to invest in developing and deepening professional relationships?

Facilitate mentoring relationships and other connections with senior leaders. Building trusted relationships can contribute to the longer-term growth of early career scholars' networks and professional support systems. There are multiple ways to engage senior scholars in supporting the development of early career scholars, from lighter touch engagement during an event to more intensive mentoring relationships; in all cases, attending carefully to the design of such opportunities increases the odds of success. There are multiple ways to engage senior scholars in supporting the development of early career scholars, from lighter touch engagement during an event to more intensive mentoring relationships; in all cases, attending carefully to the design of such opportunities increases the odds of success.

- Orientation to mentorship: In identifying potential mentors, it is important to consider not only someone's subject matter expertise and reputation within academia but also how they would approach a mentoring relationship and how accessible they might be to early career scholars.
- Training and preparation for mentors: Mentors can also benefit from preparation, training, and messaging that helps set the tone for the engagement and build a foundation of mutual respect and trust.
- Opportunities for roles outside of intensive mentorship models: Additionally, it can be helpful to think about different roles senior leaders can play outside of direct mentorship to early career scholars, such as serving on professional development panels or participating in off-the-record conversations to offer advice to early career scholars, serving as a faculty director on a fellowship, providing feedback on an early career scholar's in-progress deliverable, or leveraging other structures in academia to support their development (e.g., participating in mentor matching activities at academic conferences). At events that include early career scholars, respected senior leaders can be tapped to model inclusive behavior and set the tone for how meeting attendees can engage productively with early career scholars.

Learning more about other early career scholars' personal and professional interests, for example through content-based meetings, virtual happy hours, and opportunities to provide feedback on each other's drafts, can build connections that translate into enduring partnerships and networks.

Invest in peer relationships. As noted in the section about building social connections, peer relationships among early career scholars (including those in other disciplines) build important social capital and a network of trusted colleagues that can pay dividends over the course of their careers. Learning more about other early career scholars' personal and professional interests, for example through contentbased meetings, virtual happy hours, and opportunities to provide feedback on each other's drafts, can build connections that translate into enduring partnerships and networks.