



Example 3 Postdoctoral Researcher Mentoring Plan

This Postdoctoral Researcher Mentoring Plan for “Awesome STEM Education Project” was designed to support the professional growth and career development of individuals hired as post-docs during this project. With two sites, we are budgeting a post-doctoral position at both locations. We have conceived of the positions as having a two-year cycle that alternates between our two locations. For Years 1 and 2, a Postdoctoral Researcher will be recruited to work at the UA. In Year 2, another Postdoctoral Researcher will be at hired for the UB campus. This arrangement will provide continuity as one Postdoctoral Researcher will ease the new hire into her/his position. Subsequently, another Postdoctoral Researcher will fill the vacancy in Year 3 and 4 in A, while the final Postdoctoral Researcher will be at B for Years 4 and 5. Both PIs have experience mentoring graduate students and will assuredly give the Postdoctoral Researchers the chance to stretch and grow with the ultimate goal of producing four dynamic STEM education faculty members by the conclusion of the funding cycle of the proposed project.

1. Orientation. The Postdoctoral Researcher will be introduced to the project through individual meetings with faculty members, examining project documents, and becoming familiar with the participating districts and their associated demographics and test performance via online sources. Benchmarks related to the project will be established, roles and responsibilities identified, and the desire to blend theory with practice will inform the co-determination of goals for the Postdoctoral Researcher.
2. Entry into the Profession. Because STEM education is so complex, the project offers many opportunities for the Postdoctoral Researcher to better understand the field. This includes the necessary interplay between theory and practice, the various approaches to data collecting and interpretation, as well as the cultural norms of interacting with fellow faculty and school district personnel. In addition to these research-based experiences, we will provide supplemental exposure in the form of course delivery, field supervision and academic advising, as those are standard expectations of STEM education faculty candidates. Included within this portion of the mentoring will be learning how to work with undergraduates and graduate students alike.
3. Publications and Presentations. In addition to attending professional conferences, the Postdoctoral Researcher will work closely with project staff to collaboratively develop presentations. In addition, mentoring will be supplied with the preparation of manuscripts for publication that directly result from project activities. In addition, others ways to engage the Postdoctoral Researcher will include the review of conference proposals and journal manuscripts.
4. Navigating Networks. With STEM educators widely dispersed and only rarely concentrated at a single institution, mentoring will be supplied that models how to establish networks of support. These will include identifying collaborators across disciplines (e.g., educational psychology, learning technologies or school leadership) as well as across institutions (i.e., via collaborative projects, co-authorships, etc.). Beyond introducing the Postdoctoral Researcher to existing networks, strategies will be offered about gaining access to other professional educators as a means for being inducted into the field and becoming successful at the work.
5. Success of the Mentoring. Regular meetings between the Postdoctoral Researchers and the Principal Investigators will afford tracking of progress toward the goals established for the postdoctoral program and during subsequent career endeavors. The combination of scholarship, teaching, service and networking will all be considered key dimensions of success.

In summary, the Postdoctoral Researchers will be integral members of the project team even as they are receiving a variety of forms of mentoring that will better prepare them for careers as STEM educators. As with the DR-K12 program, we wholeheartedly believe that novice STEM educators must not only develop skills as mixed methods researchers, but also improve their capacity to collaborate such that the challenges faced in contemporary STEM education can be addressed.