

e-Mentoring for Student Success (eMSS)

Background

Online professional development that provides content-focused mentoring is an optimal solution to support new teachers. While there are many different online professional development options available today, not all programs are the same. It is prudent to look to the recommendations and criteria outlined in the professional development and distance learning research and the research on mentoring to help guide the selection of an online professional development program that best meets the needs of beginning science, math, and special education teachers.

The e-Mentoring for Student Success (eMSS) program for beginning science, math, and special education teachers was developed based on the New Teacher Center's expertise, research and practitioner literature on professional development, online learning, and mentoring. eMSS offers a variety of science, math, and special education curriculum options for beginning teachers that are designed to support teachers' immediate short-term needs, inquiry into teaching practice, and understanding of content. eMSS is a year-long program that emphasizes the key structural features of an effective mentoring program.

Documented Results

Evaluation research on the eMSS program has shown that beginning teachers participating in eMSS have reported (a) a significant increase in preparedness in basic teaching and management skills; (b) that the eMSS components have enhanced their ability to teach science; and (c) that participation in the content areas improved their understanding of the content.

The mentors who participate in the program also report significant increases in feelings of preparedness to work with beginning teachers who teach challenging curricula, and the ability to be a content-focused mentor.

In addition, eMSS has been the focus of several dissertations, evaluation studies, and master's theses in which the following themes have emerged.

New Teacher Growth

Independent research shows that new teachers in eMSS increased their pedagogical-knowledge and pedagogical-content-knowledge understanding. New teachers are more confident in using a variety of strategies to influence how students learn math and science. The addition of using video of teaching practice as part of an observation cycle is a recent program enhancement also shown to impact new teacher development.

Meeting the Needs of New Teachers

All new teachers have needs that are unique to the early years in their careers, and this is even more evident in new special education teachers. New special education teachers in eMSS find support through relationships with mentors, pedagogical strategies, time management, and addressing the new teachers' emotional and psychological concerns. Mentors responsiveness supported a variety of new teacher needs.

Reflective Practice

Numerous studies identify the importance of reflective practice in teaching. The eMSS design utilizes varying levels of reflection processes. Making connection between the professional development in eMSS and the new teacher's classroom is a marker of effective professional development that impacts student achievement. The addition of using video of teaching practice as part of an observation cycle has deepened the level of reflective practice.

Mentor Growth

Mentors in eMSS are engaged in ongoing professional development to support the teachers they serve. eMSS is design to promote social knowledge construction through the interaction with the community, and eMSS has been shown to meet mentors' professional learning needs. Mentors in eMSS have a more focused level of support specific to STEM and special education.

Online Community Building

Vibrant and dynamic online communities of practice require support, nurturing, and topics that engage participants. The active facilitation in the design of eMSS has been shown to increase the quality of dialogue that impacts classroom practice, confidence, and leadership skills. Access of new teachers to an established online community builds their capacity for high-quality instruction and thus strengthens their content knowledge, and offers both personal learning networks and professional networks.

Retention

Retaining STEM and special education teachers in schools is difficult due to the challenges in finding qualified mentors. STEM teachers in eMSS have a retention rate of 80-95%, similar to in-person induction programs. A second retention study is currently underway.

Researcher Richard Ingersoll reports the STEM teacher shortage is not due to a lack of production but, rather, it is due to a lack of retention. He also reports that the strongest impacts on retention are a mentor in the same content area and collaboration time with other teachers in the same content area. In addition, his latest study indicates that induction programs with just a few components, such as those above, have a reduced impact on teacher retention.

Potential Applications

During the National Science Foundation (NSF) grant, eMSS scaled to over 1,000 participants successfully. Since 2007, eMSS has been a self-sustaining program. Currently, eMSS has projected numbers of new teachers approaching 1,000 with a growth plan and strategy to continue to grow and scale without a reduction in quality. In addition, eMSS provides (1) multiple entry points into the program to support new teachers, (2) support from a content-focused mentor, (3) access to a content-focused community of practice, and (4) access to Explorations—professional development modules designed for new teachers. As eMSS is an online nationwide program, geographic boundaries are not a barrier to support new teachers regardless of location and types of students being served.

For More Information

See <http://www.newteachercenter.org/services/emss>.

To discuss your state or district's support needs for beginning teachers of math, science or special education, email us at emss@newteachercenter.org or call 831-600-2200.