Since 1977, the MAA North Central Section (NCS, which includes Minnesota, North Dakota, and parts of South Dakota and Canada) has run summer seminars every other year for its members. Although the summer seminar is organized by the NCS, registration is open to all and we often have a large number of participants from outside of the section. Seminars are hosted by colleges and universities within the section and campus dorm rooms are offered as a low-cost housing option for participants. Although we primarily fund the seminar through participant registration fees, the NCS has historically been able to cover the difference of any shortages that have occurred.

We have found that the summer seminar provides an ideal opportunity for section members to build community and develop in their profession by learning something new. In contrast to the brief sessions at section meetings, the summer seminar allows participants to gain a depth of understanding of a topic in mathematics. Seminar topics are carefully chosen by the section board after surveying section members; past examples include big data, climate models, computational combinatorial geometry, and the history of mathematics. Seminars are aimed at an introductory level and do not assume prior knowledge. It is important that the chosen topic is accessible and that sessions are organized so that all section members feel welcome and that they can gain something from attending. Organization of the seminars has varied from year to year, but generally includes some plenary talks as well as opportunities for participants to engage in the material. For example, at the big data workshop, participants learned how to use R to do statistical analyses and topological data analysis of large datasets. Most of the time was devoted to workshop-type sessions in which participants worked on their programming skills in R. Throughout the week, social dinners and gatherings are planned to give participants opportunities to connect with one another and build community.

This year, we partnered with the Academy of Inquiry Based Learning (AIBL) to hold our summer seminar on Inquiry Based Learning (IBL) in Mathematics (June 18–21, 2019, University of St. Thomas). Through a project funded by the National Science Foundation (NSF DUE 1525058 and 1525077), AIBL offers four-day professional development workshops on IBL each summer; our summer seminar was one of four offered around the country this summer. This was a great opportunity to leverage the expertise of a leading program on IBL and the community of mathematics faculty within the NCS to advance the teaching and learning of mathematics.

The seminar brought together a total of 29 participants (17 NCS members and 12 participants from other sections) and was led by five facilitators from AIBL, TJ Hitchman (University of Northern Iowa), Kyle Petersen (DePaul University), Nina White (University of Michigan), Xiao Xiao (Utica College), and Rebecca Glover (University of St. Thomas). It also included addresses from two plenary speakers from the section, Terrance Wyberg of the University of Minnesota and Suzanne Dorée of Augsburg University, along with a panel of seven students sharing...
their experiences in IBL classes from three different Minnesota institutions.

As is traditional in AIBL workshops, participants were expected to come with a course in mind in which they’d like to develop more IBL teaching strategies, from developmental mathematics to senior level mathematics courses. At the seminar, participants had opportunities to learn about the Four Pillars of IBL (Laursen & Rasmussen, 2019, doi.org/10.1007/s40753-019-00085-6), watch videos of IBL classes, read and reflect on education literature supporting IBL, and plan for their courses. Participants will also receive email mentoring from the five facilitators throughout the upcoming academic year as they implement their IBL strategies in their chosen courses. To learn more about AIBL and its workshops, please visit www.inquirybasedlearning.org/.

This year’s seminar provided a wonderful venue to further the development of an IBL community within the North Central Section. Of particular note was the combination of two- and four-year college and university faculty at the seminar. We made efforts to welcome and encourage two-year college faculty participation through the American Mathematical Association of Two-Year Colleges (AMATYC) Central Region, North Dakota and Minnesota state affiliates (NDMATYC and MinnMATYC), and through the Minnesota State network of two-year college deans and academic officers. These efforts allowed for five two-year college faculty to attend the seminar with their institutions’ support.

It was exciting to experience the growth of the NCS community and shared commitment to excellence in teaching and learning and student success within the community of participants across a diversity of institutions and courses. The NCS has committed to running a special session on IBL in the spring of 2020 and conversations throughout the week generated ideas and plans for how to support each other as IBL practitioners through class visits, community meals, and mini-workshops throughout the year.

The Summer Seminars within the NCS have been great opportunities for our community to connect and learn together. To learn more about NCS Summer Seminars please visit maa.org/horncen/summerSem.html.

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**A Quick Look Back**

**Mathematical Treasures on Convergence**

This image is the title page of Augustus De Morgan’s copy of the 1740 French translation of the first edition of *Newton’s Method of Fluxions*. This copy was annotated on the title page when De Morgan bought it in 1852. Adding to the interest, it was translated by the Comte de Buffon. View this item at maa.org/press/periodicals/convergence/mathematical-treasure-newtons-fluxions-owned-by-de-morgan.

Find other Mathematical Treasures, as well as articles on the history of mathematics and its uses in teaching on *Convergence* at maa.org/press/periodicals/convergence.