

I believe in cartography's power to enhance the study of virtually all disciplines and enrich the personal lives of those who practice it. Starting as an undergraduate sophomore at Penn State, I have taught for twenty semesters, helping students access their creativity while teaching undergraduate, professional, and graduate students. This includes online and in-person learning modalities, majors and non-majors, small class sizes (eight students) to the largest class ever taught in the University of Wisconsin department of Geography (400 students). My four philosophies for teaching cartography include **building trust**, supplying **advocacy and support**, providing **formative feedback**, and **promoting the joy of learning** to give students ownership of cartography. At heart, my teaching work is making space for divergent thinking, imagination and creation, which together could be called **creativity**. For this approach I received a highly competitive campus-wide teaching award for my services to UW-Madison Geography education.

BUILDING TRUST: *undo harmful narratives | maintain positivity | build self-confidence.*

I seek to undo harmful narratives that students have internalized about their abilities to perform creative work from previous educational experiences, such as STEM students believing they cannot think creatively to liberal arts students believing they cannot gain proficiency in anything technical. I build a growth mindset by downplaying mistakes and celebrating victories while setting transparent and high expectations early in the semester that my class is not an easy 'A'. Part of building trust is meeting students 'where they are at' and building their skillsets by scaffolding instruction and creating assignments that allow for differentiation. As students begin to trust the process, they see themselves as designers and engage in the highest form of learning, **creation**. Invested and inspired in their creative processes, students often develop skills *beyond* what I know how to do by the end of the semester, effectively teaching *me*!

ADVOCACY AND SUPPORT: *demonstrate confidence in students | early assistance and feedback.*

I *demonstrate confidence in my students* early in the semester and *provide early assistance and feedback* when needed to troubleshoot common problems to help students feel safe learning cartography. Many students come into the classroom intimidated because they do not consider themselves 'good' at using technology and blame themselves for mistakes. I redirect frustration from the student (rightfully) onto the software, liberating them from fear of mistakes, focusing on the importance of transferrable, conceptual knowledge, which will work regardless of technology changes.

FORMATIVE FEEDBACK: *break learning curves | learning communities | revision geared rubrics.*

Key to my scaffolding is providing students formative feedback while working on their assignments to encourage them to rethink ineffective strategies and explore alternatives. Formative feedback breaks technology learning curves and fosters trust; the understand revision isn't equivalent to 'bad' or 'good' but part of the creative process. I form *student cohorts* to create learning communities, so students can help one another instead of regarding the class as a competition. In addition, I use assignment sheets with *common mistake lists* and grading with *revision-geared rubrics*, so a student's submission is never considered a final product, and early mistakes do not set the tone for the semester, for early mistakes are 'gifts' in the growth mindset philosophy, promoting play and deeper understanding.

PROMOTE THE JOY OF LEARNING: *encourage passion | customize assignments to encourage joy.*

When students trust themselves, feel supported by their instructor and peers, the creative process becomes fun. I encourage fun by *learning about students' passions* at the beginning of the semester and then looking for ways to *customize assignments* by integrating those interests. I am extremely proud of my 17 students who have won awards in regional and national cartography competitions, 3 who have had maps published by major outlets like *National Geographic* and the *New York Times*, and 13 who sought extracurricular work in the UW Cartography Lab. Watching my students [transform from novice to professional in a single semester](#) is profoundly rewarding, and I am deeply honored to be their guide.