



# STEM TRAIL Center

January 2020, Volume 1, Issue 6

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## Reflections and Projections

Together over this past year we've generated great momentum in STEM and as a result have accomplished some significant goals. We've put forward our [strategic plan](#) for 2018-2023, and we're well on our way to accomplishing these goals. We launched the Center, and commenced [programming](#) targeting a number of stakeholders within, and outside of, the university. In 2020 and beyond we have even bigger goals. In 2019 we poured the cement and in 2020 it's hardened to serve as the bedrock to support our ongoing initiatives. On solid ground, we have many exciting announcements in the months to come. Please follow us and join us for an event to stay apprised of new information. And, if you have a spare minute, [please send us some feedback](#), we welcome your input on how we can better adapt and grow to meet the needs of our wider STEM community.

Some of the things that we're most excited about as we kick off the semester are:

- 1) The stellar work supporting all of the Omaha community non-profits, educational institutions, and businesses via networking via the Omaha STEM Ecosystem
- 2) The significant expansion of the number of faculty form teams representing the diversity of disciplines and expertise that we have to tackle really interesting questions. The sheer number of faculty applying for extramural funds has expanded considerably.
- 3) Our teaching practices seminar continues to expand and partner with various entities. Even though our programming has been on Fridays at noon in fall 2019, keep an eye out for the many opportunities on our Calendar that include a range of teaching practices support offered as multi-day workshops, evening programming, and as communities of practice.

Wishing you all a great 2020!

*We exist to elevate  
human potential  
through lifelong  
learning.*



## The Reset: Semester-by-Semester

Instructors, practitioners, educators, and researchers have such a built in “reset” at least 3-times a year. Add in the change of seasons (4), or more aptly the change of weather in Nebraska (365), as well as the New Year (1), and we all have a tremendous opportunity to press “reset”. These breaks and “resets” are an opportunity for us to reflect on our teaching methods, relax and rejuvenate, and adjust as necessary. The fresh start helps us to keep perspective on our challenges and opportunities, and serves as nice spots to assess our progress. Teaching is challenging- and we need to reflect on how to best serve our students, and to adapt to their learning processes. Gratefully, students want to learn and we want to make sure to keep fostering that interest, creativity, and passion for learning (and occasionally re-ignite that spark for students). Here are some of my favorite classroom strategies to kick off any new semester, season, or day to make the learning environment as positive as possible:

- 1) Learn every student’s name, where they’re from, and where they want to be (career wise), and offer them a helping hand to get there. This can be challenging and time-intensive, but always worth it. Simply knowing this information gives you a plethora of apt metaphors, examples, and analogies to use in your teaching day to day, helping individual students to understand that you’re speaking directly to them. Maybe you have 30 pre-med students, but 5 pre-dental students. How will you make it relevant to the 5? Perhaps you have 150 decided majors, but 17 undecided, how will you make your class welcoming for all? Those of you teaching courses with hundreds of students are scoffing at this suggestion, but let me suggest that you make assigned seating for the first 2-4 weeks as you learn names, and *then* allow open seating? Yes, I’m suggesting making a “seating cheat sheet” and study it while your students are doing group work, study it before you walk to class, study it alongside the MavLink roster—we as instructors have homework. 😊  
Think back to your favorite teachers/professors: did they know your name? Did they know you? Perhaps this goes without saying, but I’ll say it anyway—tell your students who **YOU** are. Where you’re from, what your challenges and successes have been. It moves their impression of you from unapproachable to approachable and you just might find more students stopping by your office. It’s OK to be vulnerable—students appreciate that, but it can be hard to do. Sometimes having an accountability buddy to discuss how the day went, and what you have planned for the next day helps, and it can keep us on track.
- 2) Tell your students **WHY** you are teaching the way that you do, why you’re teaching the content that you do  
*(Continued in next column)*

## The Reset & Resources

are, and how it’s relevant to them now and in the future. Giving them a bit of “why” you teach this subject. Let them get to know one another—an ice breaker can go a long way to facilitating better group work (and accountability) throughout the semester. And, icebreakers can be scaled for the timeframe that you have. Only have 30 seconds? Then have each student say one word that describes them. Only have 1 min, and 300 students? Then first break them into smaller groups of 30 and have them say the one word about them. Scale based on your needs.

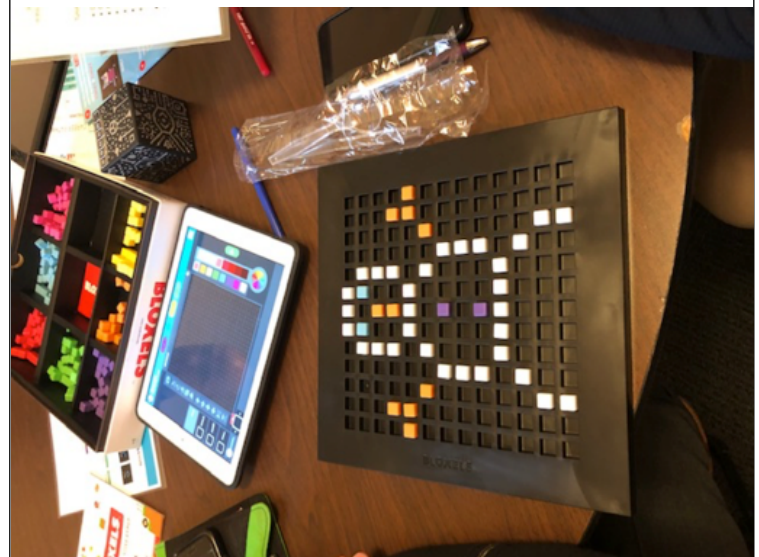
Create the learning environment that your students need, build rapport with them, then focus on content. These are some of the strategies that I’ve found success with in the classroom. I’ve shadowed many of your classrooms to learn additional tips, and have really appreciated how so many instructors engage students in their learning. Have some great tips to share? Send them to us and we’ll highlight those in our next newsletter.

-Christine Cutucache

### RESOURCES

Are you interested in better serving your students, but would appreciate some coaching on the first steps? Call us for coaching and other instructional support: [unostemtrailcenter@unomaha.edu](mailto:unostemtrailcenter@unomaha.edu), we work hand-in-hand with the Center for Faculty Excellence and we’re excited to help you meet your goals!

Stay tuned for upcoming opportunities from the Center for Faculty Excellence on their [calendar](#).



## Upcoming Opportunities & Events

### Award Notices and Exciting Highlights

We're halfway through year 1 of the Center. At this time, faculty across 4 Colleges have submitted grants through the STEM TRAIL Center, with \$15.2M pending at this time.

Planning a grant submission for 2020? Reach out with any requests early: [unostemtrail@unomaha.edu](mailto:unostemtrail@unomaha.edu)

Are you submitting your first proposal and need help with a Logic Model, core components of a grant, or other formatting assistance? Do you need help finding partners for your Broader Impacts for an NSF proposal? Are you looking for businesses that would also be interested in collaborating because of shared interest in a platform, software, or new technology? Reach out!

Maybe you've spent 2019 developing a new technology (educational, technology-based, or otherwise) and you would like help navigating the intellectual property process, we're here to help connect you with the right groups for your exciting next steps! (Note: Center takes *no* ownership in IP, nor new companies, we aim to instead serve as a network to connect resources)

### Remember the Friday Seminar Series!

Join us on Fridays at noon, usually in the Thompson Alumni Center's first floor meeting space for weekly programming. See calendar to RSVP and for location updates. For event parking passes: [tinyurl.com/UNOSTC19](https://tinyurl.com/UNOSTC19)

Join our mailing list!

*STEM TRAIL Center:* This listserv goes out related to all those interested in STEM TRAIL Center activities.

[unostemtrailcenter@unomaha.edu](mailto:unostemtrailcenter@unomaha.edu)

Email: Nik at: [nstevenson@unomaha.edu](mailto:nstevenson@unomaha.edu)

*UNO STEM Colleagues:* Networks among faculty interested in STEM related opportunities:

[STEMColleagues@unomaha.edu](mailto:STEMColleagues@unomaha.edu)

Email: Jim at: [jbwolfe@unomaha.edu](mailto:jbwolfe@unomaha.edu)

*WiSTEM Pro^2:* Gender equity, advancement, diversity Wistemp2 <[unowistemp2@unomaha.edu](mailto:unowistemp2@unomaha.edu)>

Email: Kelly at [kgomezjohnson@unomaha.edu](mailto:kgomezjohnson@unomaha.edu)

*Omaha STEM Ecosystem:* Connects to city STEM collaborators

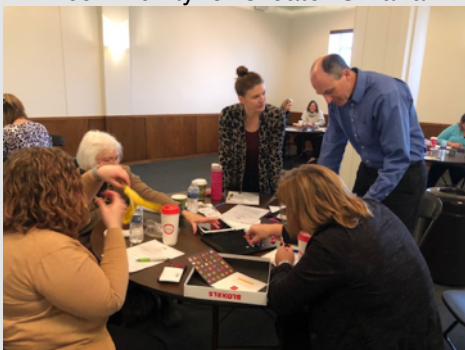
Moderated by Julie Sigmon

To join email: [julie.sigmon@omahazoo.com](mailto:julie.sigmon@omahazoo.com)

### Message from Omaha STEM Ecosystem Director, Julie Sigmon

The Omaha STEM Ecosystem hosted an event on January 14<sup>th</sup> at the Durham Museum. The event included over 34 educators, non-profit, and business partners, in collaboration with WOZ ED. This event provided an opportunity to discuss not only the need our community has to assure that K-12 students are prepared for careers of the future, but also to identify quality programs to achieve that goal. As participants worked in teams, they experienced lessons in Coding, Mobile App Development, and Drones, as well as shared feedback and ways to utilize these resources within their classrooms and out-of-school programs.

We look forward to future collaborations in building a vibrant STEM community for Greater Omaha.



### Funding Model for the Center—Update:

We are all actively pursuing funding for the Center and we always welcome feedback on ways to further support the Center. One such strand of support to the Center is via F&A (indirects) returned to the Center starting in 2020. We aim to utilize these returns to support staffing of the Center, and for providing seed dollars pre-award to assist with your projects.

**Interested in donating?** Please consider your year-end contributions to our UNO STEM TRAIL Center Excellence Fund #01149830 at the Nebraska University Foundation:

Checks can be mailed to:

University of Nebraska Foundation

PO Box 3465

Omaha, NE 68103-0465

and reference: **01149830** - UNO STEM TRAIL Center Excellence Fund

Or gifts can be remitted electronically.

**Let us know how we can support you and your projects as we kick off the New Year:**

[unostemtrailcenter@unomaha.edu](mailto:unostemtrailcenter@unomaha.edu)



## Great resources to share, from our desks to yours:

### Press Releases or Articles:

NSF Appropriations News, 2019:  
<https://www.nsf.gov/about/congress/>

STEM Congressional Highlights, 2019:  
<https://www.nsf.gov/about/congress/nsf-congress-highlights.jsp>

Graduate STEM Education for the 21<sup>st</sup> Century (National Academies Press):  
<https://www.nap.edu/catalog/25038/graduate-stem-education-for-the-21st-century>

English Learners in STEM Subjects, 2018 (National Academies Press):  
<https://www.nap.edu/catalog/25182/english-learners-in-stem-subjects-transforming-classrooms-schools-and-lives>

Discipline-based Education Research (National Academies Press):  
<https://www.nap.edu/catalog/13362/discipline-based-education-research-understanding-and-improving-learning-in-undergraduate>

### Books:

- *The Effective Executive* by Peter Drucker
- *The Impact of Confidence: 7 Secrets of Success for the Human Side of Leadership* by Timothy Ressmeyer
- *Improving How Universities Teach Science* by Carl Wieman
- *Networking for Nerds* by Alaina G. Levine
- *Make It Stick* by Brown, Roediger III, & McDaniel
- *Turning the Flywheel: A Monograph to Accompany Good to Great* by Jim Collins
- *The 5 Languages of Appreciation in the Workplace: Empowering Organizations by Encouraging People* by Gary Chapman and Paul White

*Do you have a favorite book or article? Please share with us on Twitter @UNOSTEMTRAIL to be featured here*

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