
Teaching with Heart in Community

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Developing Teaching with Heart: An Early Reflection

Abstract: Teaching with Heart is a project to bring faculty development workshops to STEM professors in higher education, focused on bringing love and compassion into the college classroom to the benefit of both faculty and students. Researchers from Colorado School of Mines and Virginia Tech collaborated on the project to make the case for the need for loving pedagogy for college students as the motivation for developing this workshop series. As part of this, we identify twelve practices as a starting point for teaching with heart and we share our motivation as researchers on this project from different perspectives regarding higher education. We include short descriptions of the workshop series content to highlight the structures and themes we used to guide faculty through this program. Some initial responses from participants in the workshop give us the first glimpse of the impact of the workshop series on teachers. Beginning the online community building phase after the first cohort of workshops concluded in February 2023 has proven to be the biggest challenge of the project so far because teachers are so busy throughout the semester. We discuss the next phases of the project, including initial lessons and goals for future iterations of the workshop series as we learn from students and faculty about how this semester went.

INTRODUCTION

The Teaching with Heart project is designed for college professors in STEM fields who want to connect more meaningfully with their students and improve their own well-being and teaching practices within a supportive network of colleagues working toward the same goals. The workshop is grounded in the question: What does it mean to bring love into the college classroom? This is a question we do not often hear in higher education, although we often associate love with teachers of younger students. The project incorporates principles of mindfulness, empathy, and social connection, and draw upon research in psychology and education to inspire participants to consciously bring love into their classrooms. The purpose of this paper is to reflect on the experiences of the first cohort of participants who completed the Teaching with Heart workshop. The researchers will explore what we have learned so far about the impact of the workshop on participants' personal growth and teaching practices and point to the next phases of the project.

FOUNDATIONS FOR WORKSHOP DEVELOPMENT

In practice, the primary focus of STEM higher education is the acquisition of the academic knowledge and technical skills considered indispensable for students' employability in a STEM career. However, this focus marginalizes other critical aspects of learning, including navigating complex real-world scenarios and contexts, building effective working relationships, and developing ethics, virtues, or character. Current STEM curricula leave limited space for students to explore "big questions" (e.g., why am I an engineer, for whose benefit do I work?) [1] and develop "self-knowledge" that allows them to think reflectively and critically about the kind of world they wish to design, construct, and inhabit in and through the technologies they are learning [2]. Critically, students have limited classroom opportunities to grow their character. Although many teachers in STEM fields are aware of the value of character development for students' lifelong learning and career success, their capacities are constrained by the limited space in the curriculum left for "non-technical" content and/or their lack of training for integrating character development into the curriculum.

The importance of bringing love to the classroom or implementing a "loving pedagogy" has been previously highlighted in the higher education literature, such as in Yin, et al [3], DeLong [4], and Su [5], and attributes of love in the classroom have been described by Loreman [6] and Dennis [7]. Nevertheless, the justification for and strategies to enact a loving pedagogy is rarely mentioned in STEM higher education. Our project aims to develop a community of compassionate teachers who are dedicated to bringing a loving mindset into their classrooms. We are exploring the following lines of inquiry:

- What does a character of love (heart) in the STEM-classroom in higher education mean, and in what ways might it be expressed to be beneficial for students and teachers?
- How can we grow a character of love in STEM teachers in higher education, and how is this shaped by their beliefs and practice?
- How can a character of love be nurtured in STEM higher education teachers?

THE MISSING ELEMENT IN FACULTY DEVELOPMENT: HEART

Developing a character of love in the classroom is not a part of the professional development of teachers in higher education. A study of 385 faculty developers at higher education institutions reveals not even one service was offered to faculty that addresses virtue or character development (See Table 4.1 in [8]), despite significant promise of favorable outcomes for both teachers and students. Further, many teachers in STEM higher education do not receive *any* significant teacher training before they become teachers. Teacher preparation programs in STEM higher education primarily focus on curriculum design and pedagogy aimed to enhance technical and professional competencies [9]. These topics are essential to good teaching, but inadequately address character development, including how to create a loving classroom environment.

Streveler and Smith suggest that effective course design should start with reflecting on the three elements of learning: head (e.g., cognitive abilities), hands (e.g., hands-on capabilities), and heart (e.g., emotional and affective tendencies) [10]. Most learning design templates and professional development programs place a strong emphasis on the head and hands, but little on the heart [10]. Professional education should move beyond teaching employable knowledge and skills and invest in cultivating students' emotional and affective tendencies--fundamental for developing character [11]. In order to create a learning environment that encourages students to develop their heart-related abilities, the character of the teacher needs to be addressed first. Our project aims to assist teachers in developing a character of love in their classrooms, expanding upon prior work on how to develop a loving classroom pedagogy [6].

Interacting with teachers in the workshop series gave us all a chance to identify the areas in which we are experiencing difficulties or roadblocks to connecting with students. Often times, our personal needs for more rest, more exercise, more food, more emotional support, or other unmet needs makes it difficult to interact positively with students. In addition to identifying the ways we need to take care of our own needs as teachers, we brainstormed techniques for bringing love into the classroom, for supporting students' wide-ranging needs as people. Readers can learn more in the full piece, but in a recent *Physics Today* commentary, we share some of the teaching with heart practices [12]. We encourage the following list of practices as a starting point for thinking about creating a loving classroom environment that supports adult learners in college classrooms:

1. Use name tents and ask for preferred pronouns.
2. Ask students how you can best support them.
3. Be available, arrive at the classroom early, and reach out to students.
4. Be aware of privileges.
5. Show up as a whole person and be willing to be vulnerable.
6. Encourage students to be fearless.
7. Develop students' analytical and intuitive thinking.
8. Promote students' well-being.
9. Prioritize important issues over the class schedule.
10. Focus on the potential of students instead of on their current level.
11. See the inner person beyond the outer person.
12. Always love your students, even when you don't feel like it [12].

The final two suggestions on this list are the more complex, sustained behaviors, and they encourage teachers to prioritize their own well-being, from emotional to physical to spiritual, in order to have positive impact in the classroom. Only when teachers are resourced internally can they create and sustain a safe and loving external classroom environment for their students. One member of the research team, Cynthia James, describes love in the classroom in this way: it means bringing compassion to work consistently, giving focused attention to the whole student (mental, emotional, physical, and spiritual). It means having a caring, nurturing attitude that allows students to thrive personally and academically. Love in the classroom requires deep and compassionate listening, responding to the needs of the students when crisis arises and creating an environment where students feel empowered to think, create, explore, and allow curiosity to open new possibilities of learning.

THE WORKSHOP EXPERIENCE

The Teaching with Heart workshop was designed to be a four-session course delivered over Zoom, consisting of both synchronous and asynchronous activities. We recruited the 22 teacher participants from our home institutions of Colorado School of Mines and Virginia Tech and also extended the invitation more broadly, bringing in about a third of participants from other institutions in Colorado and across the country. In subsequent iterations of the workshop, we will continue to build contingents at other campuses and seek to expand the reach at the initial institutions. The four researchers gathered with the teacher participants for 4 evenings over 2 weeks in the beginning of the spring 2023 semester.

Each session began with a centering exercise to focus everyone's attention after a busy work day, to unite us as a collective meeting for a intentional purpose. Using reflection prompts, video clips, discussion questions, short articles, and both small and large group conversations, we covered a series of themes together over four sessions. Session 1 focused on how teachers show up emotionally in the classroom and why it matters for students. We started articulating roadblocks to teaching with heart and thinking about personal teaching statements. In session 2, we emphasized the importance of authenticity and compassion in the classroom, beginning with our personal virtues, values, and struggles and how they impact our teaching. In the third session, we reviewed statistics on mental health challenges for college students and focused on recognizing and responding to emotional needs of students. Finally, in session 4, participants developed intentional teaching statements and identified specific teaching with heart classroom practices to try with their students for the rest of the semester.

During the workshop series and in conversations with participating teachers after the workshop series we encountered two barriers to creating a heartfelt classroom environment: (1) a sense of being overwhelmed, and (2) a fear of considered to be too "soft and lenient." Many faculty are busy up to the point that it becomes a challenge for them to pause, reflect, and exercise self-care. In this state of busyness it is easy to lose track of priorities, to get lost in the activities without considering why we do these activities, and to lose focus on the individuality of our students, each with their own needs, desires, and insecurities. We practiced using short centering exercises with the teachers in the workshop series, but to create mental space for heartfelt teaching takes more than short centering exercises. As pointed out by Cavanaugh [13], to be supportive to our

students, teachers need to be well also. Since self-care can be confused with selfishness, especially in academic circles, it is a challenge for many faculty to exercise self-care. To bring empathy to the classroom, we need to pause and consciously embrace this mindset [14].

The second impediment to embodying love in the classroom came mostly from junior tenure-track who feared not being taken seriously when showing compassion in the classroom. Underlying this fear was a mistaken belief that being a compassionate teacher means being “soft and lenient.” We discussed that caring about students does not mean that we do not set standards as teachers. In fact, “setting boundaries is an expression of care” [15]. But the perceived expectation for being tough in STEM-teaching in higher education, can make it difficult for junior faculty to embrace a loving mindset in the classroom.

In reflecting with teacher participants toward the end of the spring 2023 semester, they expressed an appreciation for the workshop experience, many indicating that they found support and compassion with their cohort colleagues. They were motivated to continue to reflect on ways to work toward a better sense of well-being for themselves. One participant expressed a desire to focus their energy differently before and during class. Another appreciated the license to let go of perfectionism with support from others who understand. Another teacher considered how meditation and student check-ins could change their classroom vibe. Participants described opportunities to express their care and compassion for students in new ways and to seek joy in their profession that can feel distant in times of overwhelm.

For the post-workshop phase of the project, researchers are working with participants on how to best stay connected and engaged as a cohort of participants engaging in an online community of support. We initially created 4 small groups from the entire cohort and encouraged groups to meet bi-weekly throughout the rest of the semester after the workshop concluded. This was more successful for some groups than others. The intensity of the responsibilities for teachers tends to ramp up throughout the semester and good intentions often cannot overtake the reality that folks are inundated with tasks. The challenge of building and sustaining the online community despite heavy demands on participants means that the inherent value of participation needs to be a driver that keeps teachers engaged.

CHALLENGES AND FUTURE DIRECTIONS

While the Teaching with Heart workshop has successfully concluded its first cohort, there are challenges in adding to the plate of busy college professors. Even when we want to give time to a new skill or prioritize a new effort, it can be challenging to schedule meetings and get participants to follow through. In future iterations of the workshop series, we will continue to learn about what works for online communities of STEM professors. Another challenge is the need to ensure that the workshop is accessible to educators from diverse backgrounds and institutions, and that it addresses the unique challenges facing educators in different contexts. We have noted that participants who volunteer to devote time to teaching with heart already have a sense of compassion for their students and it is more challenging to recruit those who may struggle the most with this concept. We designed this project with the online community

component to emphasize sustaining the program over time, impacting more faculty members and more students as it grows.

CONCLUSION

The Teaching with Heart workshop has the potential to make a significant impact on the field of STEM education by equipping professors with the tools necessary to improve their own well-being, connect with their students, and build and sustain online communities of support. By continuing to refine and improve the workshop, and by supporting ongoing growth and development for participants, we aim to transform the landscape of higher education for STEM in community with others. We would love to work with you in this ongoing endeavor, so please reach out at the following address: tw@mines.edu.

REFERENCES

- [1] D. M. A. Karwat, "Self-reflection for activist engineering," *Science and Eng. Ethics*, vol. 26, pp. 1329-1352. 2020.
- [2] C. Mitcham, "The true grand challenges for engineering: Self-knowledge", *Issues In Science and Technology*, vol. 31, no. 1, pp. 19-22.
- [3] L.C. Yin, T. Loreman, R. Abd Majid, and A. Alias, "The dispositions towards loving pedagogy (DTLP) scale: Instrument development and demographic analysis," *Teaching and Teacher Education*, vol. 86, 102884.
- [4] T. J. DeLong, *Teaching by Heart*. Cambridge, MA: Harvard Business Rev. Press, 2019.
- [5] F. Su, *Mathematics for Human Flourishing*, New Haven, CT: Yale Univ. Press, 2020.
- [6] T. Loreman, *Love as Pedagogy*, Rotterdam, The Netherlands: SensePublishers, 2011.
- [7] M. Dennis, *A study how teachers show love in the classroom*, DoE thesis, George Fox University, 2012. <http://digitalcommons.georgefox.edu/edd/13>
- [8] A. L. Beach, M. D. Sorcinelli, A. E. Austin, & J. K. Rivard, J. K. (2016). *Faculty development in the age of evidence: Current practices, future imperatives*. Sterling, VA: Stylus Publishing, 2016.
- [9] T. T. Phuong, T. T., S. C. Cole, & J. Zarestky, "A systematic literature review of faculty development for teacher educators," *Higher Education Research & Development*, vol. 37, no. 2, pp. 373-389, 2018.
- [10] R. A. Streveler & K. A. Smith, "Opinion: Course design in the time of coronavirus: Put on your designer's CAP," *Advances in Engineering Education*, vol. 8, no.4, 2020.
- [11] W. H. Jeynes, "A meta-analysis on the relationship between character education and student achievement and behavioral outcomes," *Education and Urban Society*, vol. 51, no. 1, pp. 33–71, 2019.
- [12] R. Snieder, C. E. Holles, Q. Zhu, and C. James, "Commentary: Teach with heart!" *Physics Today*, vol. 76, no. 3, pp. 10-11, 2023.
- [13] S. R. Cavanaugh, "They need us to be well," *Chronicle of Higher Education*, May 2, 2023.
- [14] J. Larsen, "Embrace compassion," *Science*, vol. 379, no. 6638, Mar 23, 2023. [Online] <https://www.science.org/content/article/professors-we-can-and-should-prioritize-compassion-our-students>
- [15] R. Streveler, Personal communication, April 20, 2023.