President’s Message Summer 2021

I recognize that as a White cisgender female, among other identities I have, I am limited in my ability to understand the experiences and perceptions of other ASTE members— the same organization that I find welcoming and supportive of my work isn’t necessarily what others who are different from me experience, as evidenced in our Grand Member Survey. For this reason, I invited a group of current/former ASTE members to help expand my understanding of the ways in which ASTE could become a more inclusive organization with specific regard to racial equity. I am thankful for the time and effort these individuals devoted to creating a Call for Reflection and Action that prompts us to engage in the challenging, but necessary, work of ensuring all members opportunities to thrive professionally through our organization.

In response, the Board has taken some initial steps towards the long-term goal of diversifying our membership and leadership and creating an environment that fosters equity and inclusion. We recently adopted a Code of Professional Ethics and Conduct, developed by the Equity Committee, to more explicitly state our commitments to creating a culture of inclusion that respects and honors the dignity of all members. We are co-developing a webinar miniseries with NSTA that focuses on equity and social justice in science teacher education. We have been critically examining our Statement of
Operating Procedures (SOPs) to identify policies and processes that unintentionally serve as barriers to participation in ASTE. For example,

- We have (re)committed to publicizing the open nature of Board and Committee meetings to the broader membership.
- We have instituted a regular rotation process and two-year term for all conference Thread Coordinators, opening up opportunities for new leadership in these positions.
- We have created a new NSTA Partnership Committee, to engage members whose interests intersect both organizations.
- We are expanding the number of committee positions to provide more opportunities for cultivating leadership.
- Our new website will feature a centralized Volunteer Portal to make getting involved in ASTE leadership and service more transparent and accessible to members, and to help us track applicants we are unable to appoint at the time for consideration for future appointments.
- Our new member database will allow us to better monitor our progress in increasing the diversity of our membership and leadership, and enable us to reach out to members who have not yet been involved in service activities.

We recognize, however, that these are not merely checklists of items on a to-do list, but fundamental cultural shifts in how we function as an organization, and how we wish to in the future. Enhancing the diversity of our membership and leadership is a means, not an end.

ALL ASTE members have a role to play in this work. I invite you all to volunteer in response to calls, but also encourage you to think about how you might advance this work in other ways-- For example, ASTE provides for members to create Forums based around shared interests and concerns. Our Graduate Student Forum is a great example of the way in which these affinity groups can influence the policy, procedures, and activities of the Association-- this group successfully proposed a bylaws change to create a graduate student Board representative, regularly hosts a mentoring workshop, luncheon, and 3MT event at our annual meeting, and recently held a successful virtual mini-conference. Members might also consider supporting this work financially, through a donation to our ASTE Legacy Account. Your donation can be earmarked specifically to support specific activities and initiatives, such as travel funds for scholars of color-- we invite your ideas! If you have a suggestion, you can share that directly with me or use this form.

**Code of Professional Ethics and Conduct**

**Contributor: Jerrid Kruse, Equity Committee Chair**

During the January, 2021 International Conference, the Equity Committee completed their work to develop a code of professional ethics and conduct. Later this past spring, the Board voted to officially adopt the code below. Our thanks to the committee and board members for thoughtful and constructive dialogue.
To whom does this Code apply
This Code applies to all ASTE “Members,” defined as Members in good standing, Fellows, Affiliates, or any other category as specified in the Bylaws and Standard Operating Procedures as well as participants at ASTE sponsored events. All Members must comply with this Code as a condition of ASTE Membership.

Preamble
ASTE is committed to promoting a culture of respect, fairness, and inclusivity for Science Teacher Education. All people deserve to pursue their professional activities with dignity and in a safe, supportive, respectful, inclusive, and welcoming environment that encourages diverse points of view and backgrounds in order to engage in open and honest communication. Pursuant to this commitment, ASTE does not tolerate personal or professional discrimination or harassment including, but not limited to, harassment or discrimination based on race or color, ethnicity, national origin, ancestry, sex, creed/religion, age, genetic information, sexual orientation, gender identity or expression, disability, veteran status, marital status, medical condition, pregnancy, education, class, political affiliation, or parental status.

Mandatory Commitments
ASTE Members shall:
- Not discriminate against, harass, sexually harass, bully, or engage in retaliation against others as a part of their professional activities;
- Use evidence-based criteria when making decisions and taking actions that affect the work, educational, and/or professional opportunities of students, colleagues, and other professional contacts;

Aspirational Commitments
ASTE Members are expected to:
- Treat others respectfully, without exploitation, and provide a safe, supportive environment to encourage learning and professional development;
- Listen to others’ points of view, seek to understand them, and conduct themselves in a professional manner even when it is not reciprocated;
- Refrain from making biased assumptions about others and perpetuating demeaning attitudes and stereotypes;
- Not accept any forms of discrimination by questioning and/or actively challenging implicit and explicit forms of discrimination;
- Strive to promote diversity among conveners and presenters when organizing panels, keynotes, and other invitational sessions.

Resources for further learning
https://www.eeoc.gov/discrimination-type
https://www.cdc.gov/eeo/faqs/discrimination.htm
https://www.nsf.gov/od/odi/eeolaws.jsp
Submitted by Amanda Glaze-Crampes and Jeanna Wieselmann

ASTE elections will run from October 1, 2021 through November 15, 2021.

The slate of candidates is listed below. The ballot and candidate background information are available at https://theaste.org/members/elections/. You must be a 2021 member and logged in to view the information and to vote. All members please be sure to vote - YOUR vote counts!

**President (1)**
Andrea Burrows
Ian Binns
David Crowther

**Board Member at Large (2)**
Mark Bloom
Lisa Borgerding
Julie Contino
Rita Hagevik

**Elections Committee (3)**
Selina Bartels
Mike Borowczak
Natasha Cooke-Nieves
Ron Hermann
Jessica Riccio
Preethi Titu

Questions should be directed to the chair, Amanda Glaze-Crampes at aglaze@georgiasouthern.edu or chair-elect, Jeanne Wieselmann at jeanna@umn.edu. Technical difficulties should go to John Rhea at des@theaste.org.

Happy voting!
The ASTE Elections Committee
Get ready for the 2022 ASTE conference in Greenville, South Carolina! We will once again be gathering in person with opportunities to reconnect with friends and colleagues, network, present your cutting-edge research and innovation, and learn from one another.

Before we can answer the question of what constitutes good science education and how to teach, we must first consider the why. As we heal from the pandemic, consider the impacts of climate change, social justice issues, and learn from robots exploring the surface of Mars, we have chosen as the conference theme “Why Science Education?” as an invitation to reflect upon and explore the why, what, and how of science education in the 21st century.

Destination: Greenville is located in the Upcountry of South Carolina and is an inviting location for our gathering.

- The Hyatt Regency is located at the top of Main street with over 100 restaurants, galleries, coffee shops, breweries, and boutiques outside the doors of the hotel;
- Breakfast is included.
- Three museums on Heritage Green 0.2 miles from the hotel including the Children’s Museum of the Upstate;
- Falls Park 1-mile away featuring a 32-acre park and 40-foot waterfall;
- Fly into GSP (Greenville Spartanburg Airport) with over 100 daily flights from key hubs including Atlanta, Charlotte, Chicago, Dallas/Fort Worth, Philadelphia, Denver, and more.
- The hotel is a short 15-minute ride from the airport and there will be a free airport shuttle
2022 ASTE International Conference

When: January 5-8, 2022
Where: Greenville, South Carolina

Greenville is a star attraction with Main Street earning Forbes Magazine top 10 best American downtowns, and both Parade magazine and Travel + Leisure's top 10 best Mains Streets. The New York Times called Greenville “a national model for a pedestrian-friendly city center.” Zagat described Greenville’s food scene as the number 1 under-the-radar Southern food destination and Esquire describes Greenville as “the next big food city of the South” offering many destinations for social gatherings.

Conference includes;

- Pre-Conference field trip on Wednesday “Storying a Park: The transformative power of eco-experimental education”;
- Keynote presentation by Nikki Rae Tulley, Navajo hydrologist from the University of Arizona, who will be sharing her work that brings community and science together;
- Thursday afternoon tours and optional activities including Roper Mountain Science Center and Conestee Nature Preserve;
- Virtual option with synchronous presentations on Friday;
- Workshops, presentations and poster sessions focusing on P-16 science teacher preparation;
- Commercial workshops including Kids Making Sense;
- Thursday morning Fun Run/Walk through Falls Park. Friday WISE dinner, Social Dinner Meet-ups, and the Regional Meetings; So many opportunities to connect with colleagues and peers.
- Post conference food and drink tour on Saturday afternoon.

Sponsorships, exhibitors, and commercial workshops opportunities still being accepted!

Roper Mountain Science Center: https://www.ropermountain.org/
The NSTA/ASTE 2020 Teacher Preparation Standards: Promise and Challenges by Cole Entress

Readers of this newsletter know that educating science teachers is a complex project, one that has become even more complicated in the last decade. This complexity is largely a good thing—the so-called practice turn in science education (e.g., Ford, 2015) reflects an emerging consensus about how students learn science, while an increased focus on issues of equity and social justice has made cultural issues a key part of science teacher preparation. Still, (re)designing courses and programs to support pre-service teachers in ambitious, equity-oriented practice is difficult. It will demand great effort as well as an unusual degree of cooperation across the community of science teacher educators (see Windschitl, Schwarz, & Passmore, 2014).

The 2020 release, by the Association for Science Teacher Education (ASTE) and the National Science Teaching Association (NSTA), of a new set of standards for science teacher preparation (Morrell, Park Rogers, Pyle, Roehrig & Veal, 2019), marked the arrival of a potentially powerful tool for communication across programs. I am an active member of both organizations, and I was excited to see their guidance on addressing the Framework for K-12 Science Education (National Research Council, 2012) and the Next Generation Science Standards (NGSS Lead States, 2013) with preservice teachers. I was even more excited to see that the authors, in an editorial, described how the new standards were revised using an approach that foregrounded equity and social justice (Morrell, Park Rogers, Pyle, Roehrig & Veal, 2020). These are standards that are therefore aligned to two of the primary challenges facing teacher educators today. In addition, they include updated guidance for science teacher content knowledge, including guidance for elementary science teachers (who have been ignored in previous sets of standards).

Unfortunately, in my preliminary work with the revised core standards—addressing content knowledge, content pedagogy, learning environment, safety, impact on student learning, and professional knowledge and skills—I have found the new standards difficult to use. The core standards have retained virtually all of their (already somewhat unclear) 2012 NSTA predecessors and added much besides. As a result, the released version of these standards is hampered by redundancy and cloudy language that threatens to undermine their effectiveness.

Consider, as an example, Standard 3: Learning Environments, reprinted in Table 1. This standard represents a prime opportunity to provide guidance to teacher educators about the two core challenges mentioned above—creating science classrooms grounded in practice and addressing potential inequities. And, as a standard, it should clearly describe the desired outcomes or goals related to classroom learning environments. Even in the top-level text, however, the standard incorporates a confusing array of other outcomes, like aligning plans to science standards and engaging students in the
nature of science. The elements of the standard add even more complexity—fostering an anti-bias climate appears, but so does planning laboratory, field, and community-based lessons. These competencies are all important, but many of them seem like they would be more at home in Standard 1: Content Knowledge or Standard 2: Content Pedagogy (indeed, alignment to science standards appears in both places). The upshot is that the very notion of Learning Environments becomes bloated, begetting a risk that equity issues may be lost among the many other components of the standard.¹

<table>
<thead>
<tr>
<th>Standard 3: Learning Environments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective teachers of science are able to plan for engaging all students in science learning by identifying appropriate learning goals that are consistent with knowledge of how students learn science and are aligned with standards. Plans reflect the selection of phenomena appropriate to the social context of the classroom and community, and safety considerations, to engage students in the nature of science and science and engineering practices. Effective teachers create an anti-bias, multicultural, and social justice learning environment to achieve these goals.</td>
</tr>
</tbody>
</table>

Below are elements of the standard

Preservice teachers will…

3a) Plan a variety of lesson plans based on science standards that employ strategies that demonstrate their knowledge and understanding of how to select appropriate teaching and motivating learning activities that foster an inclusive, equitable, and anti-bias environment.

3b) Plan learning experiences for all students in a variety of environments (e.g., the laboratory, field, and community) within their fields of licensure

3c) Plan lessons in which all students have a variety of opportunities to investigate, collaborate, communicate, evaluate, learn from mistakes, and defend their own explanations of: scientific phenomena, observations, and data

**Assessment:** This Standard is met using Assessment 3 – Unit Plan

Table 1
Standard 3: Learning Environments, from the NSTA/ASTE 2020 Standards for Teacher Preparation (Morrell et al., 2019)

Meanwhile, the standard dances around the notion of differentiation by the repeated use of the phrase “all students” (emphasis in original), but never mentions it outright. Nor does Standard 3—or for that matter, any standard in the document—address the important topic of creating a learning environment that supports students in using the discourse of science. Research unambiguously reports that this kind of language work is crucial to rigorous and equitable science instruction (e.g., Calabrese Barton & Windschitl, 2016; Lee, Quinn & Valdés, 2013)—our community standards should be equally clear.²

Problems like this dog the six core standards. Utilizing proper safety procedures shows up in three standards, the nature of science in four. Integrating students’ culture is discussed repeatedly (great!), but instructional coherence (a key tool for addressing the NGSS) receives nary a mention. These omissions
and repetitions can become a real pain point, as it did for a team that I worked with recently to revise a science teacher education curriculum. The NSTA/ASTE standards did help us to identify some areas for improvement, but not before we lost a lot of time to recondite debates like whether or not the “cultural norms and values inherent to the current and historical development of scientific knowledge” were a part of the “nature of science”—and if so, why such values were mentioned separately (see Standard 1a).

In sum: I am grateful for the ambition and hard work that went into the creation of these standards. It is high time that teacher education programs develop a shared vision of the cultural and instructional competencies new teachers need to be effective, and the NSTA/ASTE 2020 Standards provide a good starting point. Still, for stakeholders to get from these standards the guidance they need, a more assertive editorial hand should be brought to bear on future revisions. The standards developed by Morrell et al. (2019) contain within them a powerful instructional vision. The difficult task of science teacher education may be made more tractable if that vision can be more clearly brought forth.

**Have a topic you are passionate about and want to bring to the attention of the ASTE community?**

Submit it to us via the [Newsletter@theaste.org](mailto:Newsletter@theaste.org).

**Footnotes**

1 Another somewhat puzzling feature of Standard 3 is that the suggested tool for assessing preservice teachers’ competency with learning environments is a unit plan. This makes sense insofar as the standard is couched almost entirely in the language of planning. However, it seems impossible to assess a teacher’s current ability to “create an anti-bias, multicultural, and social justice learning environment” without observing their social interactions with students. The student teaching observation form is an assessment tool recommended for other standards, so why not this one?

2 A useful point of comparison here is the InTASC standard on Learning Environments (Council of Chief State School Officers [CCSO], 2013). This standard clearly splits its outcomes into two parts: positive learning climate and active engagement of learners. These standards are also complex, and they do not as explicitly take on a social-justice agenda, but their clean structure at least provides teacher educators and program evaluators with useful analytical lenses. For instance, it is much easier to assess whether a graduating candidate “models respectful interaction, verbally and nonverbally, and is responsive to the cultural backgrounds and differing perspectives learners bring to the learning environment” (CCSO, 2013, p. 22), than it is to ask if they “select appropriate teaching and motivating learning activities that foster an inclusive, equitable, and anti-bias environment” (Morrell et al., 2019).
References


A Note from ASTE Professional Development Committee Chair

Anyone interested in working with the Professional Development Committee on creating webinars for ASTE members, please email Andrea.Burrows@uwyo.edu
Flinn’s **New Teacher Academy** is designed for **Middle and High School Science teachers** in your district who have started teaching within the last 5 years. Fill out the information below and we will send your teachers a link to register for the webinar date and time that best suits their summer work schedule.
Southwest Region (SWASTE)

SWASTE is preparing for an in-person conference in Fall of 2021. We are soliciting member input along with session proposals early this summer. SWASTE members please complete the interest and availability survey found here.

Meanwhile, we hope to be able to safely gather together at Sam Houston State University in October for Bees, Trees, and Breweries themed 2021 Conference. We are planning to meet at The SHSU Woodlands Center, in Conroe, TX on Friday and Saturday, October 22 and 23rd. The conference hotel will be the Marriott Springhill Suites in the Woodlands which is less than a mile from TWC and right on I45 and walking distance to shopping centers. For Friday social events, we will meet at the B52 Brewery for outdoor dining. Dr. Matt Fuller will speak at our luncheon on Saturday about the role of honeybees in our ecosystem and his Fuller Farm. In addition to presentations by SWASTE members, Eric Wunderlich of Project Learning Tree will conduct a session on Project Learning tree and outdoor education. You can find conference updates and news on our site.

SWASTE is also continuing our Graduate Student Showcase this year. Southwest Region graduate students can submit a video highlighting their current, ongoing, and future work here to be highlighted on our website here. We look forward to showcasing the outstanding work of the graduate students of SWASTE.

Kelly Feille
Regional Director
University of Oklahoma

For updates check the regional websites here

Continued on next page
Southeastern Region (SASTE)

Please join us either virtually or in Downtown Safety Harbor, FL on Saturday, October 16, 2021. Proposals for our first hybrid annual meeting are open!

The Conference:

- The theme for this year’s annual meeting is: Augmenting Reality with Informal Science: The Bending, Blending and Emboldening of the Formal Classroom for the Imagination Generation.

- We will offer a combination of virtual and face-to-face presentations. You will select your modality in the proposal submission form.

Already plan to attend face to face and ready to book your room?
Book early due to city events occurring that same weekend potentially causing the hotel to book up (note: you are able to cancel your reservation with no penalty up to 3 days before check-in date).

- Hotel: Safety Harbor Resort and Spa
- $129 per night, the $16 resort fee is waived
- **Do not book online**, call the hotel directly at 727-726-1161 during business hours (9:00am – 5:00pm EST). Request to speak to someone “at the front desk of the hotel” to avoid reaching the call center, which does not have our group information.

- We have a block of rooms for Friday, October 15th and Saturday, October 16th.

- When you call, provide the group code: 39M2J1 (or Southeast Association for Science Teacher Education annual conference)

- If you have any issues, email MelanieKinskey@gmail.com for help.

Mentoring Opportunity

Interested in having a mentor or serving as one? We recently kicked off our mentoring program and would love you to join! A SASTE mentor can help their mentee identify and develop conference proposals (for SASTE and other conferences), offer job search advice, help establish a syllabus/research agenda, or assist with any other topics that come up! If you are interested in either role, [please complete this Google Form](#).
We are planning to hold the Fall Mid-Atlantic ASTE conference in person in **Blowing Rock, North Carolina** at the **Blowing Rock Conference Center**. Mark your calendars to arrive on Wednesday evening, September 22, 2021 with the conference all day Thursday and half-day on Friday, Sept. 23-24. Please arrange your **lodging** through BRCC using [this link](#).

Conference registration will be $125 ($100 for graduate students). This will include payment for our use of the conference center facilities, plus 5 meals (3 on Thursday, 2 on Friday), snacks and beverages between sessions, and a Wednesday/Thursday evening campfire. [To register, use this link](#).

**Interested in an extended stay for an Ashe County field trip?** Hike Mt. Jefferson with an Ecologist, tour Ashe County Cheese, and drink some local brews, all while soaking up the mountain air. For more details, [please go here](#).

**Your conference planning team:** Margaret Blanchard (NC State); Leslie Bradbury, Lisa Gross, and Rachel Wilson (Appalachian State)

**Questions?** Please contact Rachel Wilson ([wilsonre3@appstate.edu](mailto:wilsonre3@appstate.edu)), MAASTE Regional Director.
This summer the ASTE Graduate Student Forum launched the very first Mini-in-May Virtual Conference on May 28th. Our goal was to provide a virtual space over the summer for ASTE graduate students (and other graduate students interested in becoming a part of ASTE) to support each other and build community with like-minded colleagues and peers. The end result was so much better than we anticipated. The welcome keynote session was a very powerful and necessary discussion on mental health as a graduate student. Dr. Noelle C. Bryan from Ochsner Clinic Foundation and Dr. Autumn Cabell of DePaul University provided personal and professional information on how graduate students can honestly reflect and take care of their mental well-being and redefining success in healthy ways. The other sessions included panel discussions on writing for conference proposals, journals, and dissertations, job talk and job market, an informal chat about self-care and the June Book Group (*How to Keep House While Drowning*), and ASTE Bestie—a time to get to know other graduate students and mentors in an informal way. We were honored to have these experienced scholars and mentors take time out of their busy schedules and provide their wisdom and insight to both early-career and late-career graduate students: Katie Bateman, Al Bodzin, Malcolm Butler, Michael Clough, Su Gao, Julie Luft, Bill McComas, Felicia Moore Mensah, and Gillian Roehrig.

A few comments from the feedback survey include:

§ “What a beautiful choice for a keynote. I didn't realize how much I needed it, and both of the speakers were phenomenal!!”
§ “Thank you all for coordinating this. I believe it was a definite success.”
§ “This was fantastic!”
§ “Super informative & insightful.”

A special thanks to the session facilitators, Alexis Riley, Heather Lavender, Chelsea Sexton, Jessie Sexton, and Selene Willis and to Deb Hanuscin and Kate Popejoy for their support in helping us launch something new!
New Resources and Other News

Contributor: Katie McCance

A Resource for your Pre-service Science Education Classes: Modeling a Biorefinery

“Modeling a Biorefinery: Converting Pineapple Waste to Bioproducts and Biofuel” was recently published in the Journal of Chemical Education. It describes the development and implementation of a hands-on lab for high school students, although it could be modified for use with middle school and even upper elementary students. The goal of this lab is to increase students’ awareness of and interest in the bioeconomy and related careers, whose employees lack the racial, ethnic, and gender diversity of the U.S. population. Although relevant to chemistry, this lab also is suitable for biology, environmental science, and general science classes.

Using pineapple waste (i.e., the core, leaves, and peel), a biomass material most students were familiar with, a biorefinery process was modeled by refining the pineapple waste into usable bioproducts (paper and bioethanol, in this case). The pineapple leaves were cooked, blended, and pressed into paper, and juice was pressed from the core and peel and fermented to produce ethanol. Students evaluated their bioproducts by testing the tensile strength of the pineapple-paper and quantifying the bioethanol.

You can access the full article here, or email Katie McCance at krmccanc@ncsu.edu. Additional bioeconomy labs and resources can be found at our website, go.ncsu.edu/sbbp [PT2] and additional resources for STEM careers at https://sites.ced.ncsu.edu/stem-career-awareness/.
**Contributor: Debi Hanuscín**

Science education is not the national priority it needs to be, says a new report from the National Academies of Sciences, Engineering, and Medicine (NASEM).

The 50-page *Call to Action for Science Education* articulates NASEM's vision for high quality science education, calls on policymakers at state and federal levels to acknowledge the importance of science, to make science education a core national priority, and to empower and give local communities the resources they must have to deliver a better, more equitable science education and track progress.

**Contributor: Heather Lavender**

**Methods for Methods in Elementary Education**

This summer, a group of ASTE members petitioned the Board to form a new forum for those who teach elementary science methods. By forming this forum, we hope to build a stronger network of collaboration within the organization. Our initial work involves compiling curated resources for teaching elementary science via the Methods4Methods site at [https://sites.google.com/view/methods4methods/](https://sites.google.com/view/methods4methods/) and interacting on Facebook: [https://www.facebook.com/groups/methods4methods/](https://www.facebook.com/groups/methods4methods/). Future plans include submitting syllabi for an elementary-themed syllabus sharing session at the annual meeting, recruiting speakers to discuss best practices, learned experiences, and culturally relevant teaching, and encouraging collaborative projects for presentations and publications. We welcome all members interested in the preparation of elementary science teachers, and especially novice educators who we hope to provide mentor/mentee pairing. We hope you will check the box to join our Forum when you renew your membership this Fall, and that you will come to our meeting at the annual conference in January!

Already lined up to speak at the forum is Selene Willis, a 2021 Albert Einstein Teaching Fellow and Doctoral Candidate at the University of South Florida. Ms. Willis is also the Vice-President of the Graduate Student Forum; a science educator and her topic of study is culturally relevant teaching.

Chair: Heather Lavender, Louisiana State University ([heatherl@lsu.edu](mailto:heatherl@lsu.edu))

Petitioning Members:

- Jeanna Wieselmann, Southern Methodist University
- Valarie Akerson, Indiana University
- Dieuwertje Kast, University of Southern California
- Jerrid Kruse, Drake University
- Toni Ivey, Oklahoma State University
- Jesse Wilcox, Simpson College
- Karl Jung, University of South Florida
- Lisa Martin-Hansen, California State University Long Beach
- Kristina Tank, Iowa State University
- Sumreen Asim, Indiana University Southeast
- Daniel Alston, University of North Carolina at Charlotte
- Sarah Haines, Towson University
- Josie Melton, Western Washington University
- Debi Hanuscín, Western Washington University
Contributor: Peter Cormas

My colleagues and I recently published a professional development framework for higher education science faculty that has been linked to student learning. The article uses learning communities as a practical example for how to design, implement, and evaluate professional development with the framework. Science educators who work with science faculty, and science faculty may be interested in this article.

Here is the abstract: A recent impetus for the transformation of undergraduate science instruction to improve student learning has prompted stakeholders to support professional development (PD) of higher education science faculty (instructors). In turn, stakeholders have created successful PD for instructors on the basis of research in K–12 teacher PD. However, there is no framework for PD of instructors that has been linked to student learning. The purpose of this literature review and theoretical work is to organize instructors’ PD research within a sequential framework for K–12 PD that has been linked to student learning, to examine limited evidence of student learning yielded from the PD of instructors, to determine whether and to what extent the entire sequence of the framework has been evaluated in PD for instructors, and to use a ubiquitous form of PD known as learning communities as a practical example for how to design, implement, and evaluate PD with the framework.

https://academic.oup.com/bioscience/advance-article-abstract/doi/10.1093/biosci/biab050/6272109?redirectedFrom=fulltext&fbclid=IwAR19IITzt0g_vtmrrgliiFAVcaW4UhlKe9tLYXTdK5Skdtct87gl0Zzj-Kw0
Celebrations

Congratulations to Jerrid Kruse on promotion and the Baker Professor of Education!

Congratulations to Dr. Akarat Tanak of Kasetsart University on her promotion!

Congratulations to DJ Kast on the birth of Grayson Kast Fung!

Congratulations to Vanashri Nargund on induction as an I CAN STEM Role Model for New Jersey!

Congratulations to Rhea Gordon Miles: who was recently promotion from associate professor to professor!

Congratulations to Dr. Byung-Yeol Park for defending his dissertation titled Model-Based Learning Curriculum and Science Teacher Professional Development Supportive of the Next Generation Science Standards Implementation at the University of Connecticut.

Regina McCurdy, President of the ASTE Graduate Student Forum, defended her dissertation in July 2021. In August 2021, Dr. McCurdy will be an Assistant Professor of Middle Grades & Secondary Education at Georgia Southern University.

Dr. Katie Brkich has earned the rank of Full Professor at Georgia Southern University in Statesboro, GA.

Dr. Lauren Madden was promoted to full professor at The College of New Jersey.

Dr. Emily Dare and I (Dr. Joshua Ellis) were recently tenured and promoted to the rank of Associate Professor at Florida International University.

Congratulations to Dr. Alex Gerber from IU – Bloomington on the successful defense of his dissertation about elementary teachers learning to teach science with representations.

Celebrating the release of an IJSME special issue on Science and Mathematics Teacher Educators Professional Growth. See the work of several ASTE members included!

https://link.springer.com/journal/10763/volumes-and-issues/19-1/supplement

To submit your celebrations go to the ASTE Newsletter online form! We want to celebrate our wonderful members accomplishments!
Journal Announcements

Contributors: Sarah Boesdorfer and Rebekka Darner

*Innovations in Science Teacher Education* is ASTE's practitioner journal in which we share ideas, thoughts, and actions for educating all levels of teachers of science, both preservice and inservice. As we continue down this path as the new editors, we have several announcements.


**Submit your Manuscript to Innovations.** Have you had success educating preservice or inservice teachers online or in hybrid situations? Have you found a new and effective way for clinical hours in our current situation? What about supporting science teachers uses of culturally relevant practices? These are just a few ideas of many activities, ideas, or strategies you could submit to *Innovations* to share and inspire other science teacher educators. For author guidelines for submitting a manuscript to the Innovations journal, please visit the following webpage: [https://innovations.theaste.org/submit/instructions-to-authors/](https://innovations.theaste.org/submit/instructions-to-authors/)

**Write a Guest Editorial.** Did you know each issue of *Innovations* in commentary on a timely topic that is relevant to science teacher education? We would like to include ideas and commentaries from different perspectives, not just our own. These are commentaries, editorials, not full articles so they are 500-750 words. If you are interested in contributing a guest editorial on a timely topic, please reach out to us with your idea.

Please join our Facebook Group at: [https://www.facebook.com/ISTEjournal/](https://www.facebook.com/ISTEjournal/) so that you can receive announcements regarding the *Innovations* journal.

If you have any questions regarding the *Innovations* journal or are interested in the Guest Editorial, please contact the editors: Sarah Boesdorfer and Rebekka Darner at [ISTEjournal@ilstu.edu](mailto:ISTEjournal@ilstu.edu).
Don't forget - **Submit your articles** about technology, science, and teacher education today!

**Check out the new articles in CITE Journal Science** -

Current CITE Issue: [https://citejournal.org/publication/volume-21/issue-2-21/](https://citejournal.org/publication/volume-21/issue-2-21/)

ASTE sponsored Science Education section: [https://citejournal.org/category/science/](https://citejournal.org/category/science/)

Co-editors Andrea Burrows and Helen Meyer encourage ASTE members to submit articles and reach out about potential article ideas. They ask that the authors **check for a clear connection to science education and technology** (e.g., pre or in-service teacher education or college-level faculty). Additionally, they encourage authors to **embed interactive technology** in the manuscript (e.g., links, video, audio, animation).

ASTE sponsors the CITE Journal Science Education section and they would like to see your work highlighted!

Email Andrea.Burrows@uwyo.edu or Helen.Meyer@uc.edu with any questions.

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**Newsletter Notes**

**Published four times a year by the Association for Science Teacher Education.**

Hello all! I bring you the latest installment of the newsletter and hope you find it informational and entertaining! We are asking for new, different and more short pieces to publish. View the invitation to submit [here](https://citejournal.org/publication/volume-21/issue-2-21/). To start moving in this direction, we ask that you continue to submit all contributions to the ASTE Newsletter [online](https://citejournal.org/category/science/) for all future submissions. This link will also go out with the next call of articles in October.

Please feel free to contact me at any time if you have items that you feel are good for the newsletter or if you have any suggestions on how we may improve it. I love being able to serve you all, the members and organization of ASTE, through the newsletter.

Issue items due by:
- Autumn Oct. 10
- Winter Feb. 10
- Spring May 10
- Summer Aug. 10

All members are invited to submit items.

Editor: Jennifer Oramous
Email: newsletter@theaste.org

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**Newsletter Sleuth Challenge**: Use the clue below to locate the ‘easter egg’ to become a Newsletter Sleuth! Remember to click on it.

**Clue**: This person says hello.