# AMERICAN Educator

A JOURNAL OF EDUCATIONAL EQUITY, RESEARCH, AND IDEAS

SCHOOL BUS

300

# The Roots of Learning

## Nourishing the Essentials for Student Growth

READING OPENS THE WORLD · aft

# IN 2021, THE AFT LAUNCHED ITS **READING OPENS THE WORLD** INITIATIVE TO GIVE

- teachers and school staff the tools and professional development that translate the science of reading into usable resources to help students read and read well;

- parents and caregivers fun and research-based tips and tools to support literacy;

- opportunities for families, communities, educators, and schools to be partners in students' literacy; and

- children and young people free books to read, love, and keep.

Since then, we've distributed 1.3 million FREE books and held more than 200 literacy events in 28 states and Puerto Rico at schools, community centers, faith-based organizations, and union halls, with many more planned to keep spreading the joy of reading in 2023.

**Be a part of Reading Opens the World!**
Find out how YOU can help create a nation of joyful and confident readers at **aft.org/READ** by hosting an event, donating a book, or downloading a resource today!

# AFT Innovation Grants Support Educators Across the Country

In February, the AFT announced its Innovation Fund's **What Kids and Communities Need grants totaling nearly $500,000** in support of educators, students, and communities. This brings the union's total commitment to $1.6 million since the start of the pandemic.

The 14 funded projects aim to recruit and retain educators, bolster career and technical education to prepare students for the future, and aid community schools' work to

build bridges between the needs of communities and the needs of students in schools.

The AFT Innovation Fund prepares students for the future by securing the resources and support they need for career, college, and life through technical education, entrepreneurship, "grow your own programs," and more.

**aft.org/innovate**

aft · WHAT **KIDS &** **COMMUNITIES** NEED

# Winning the Race Between Fear and Hope

RANDI WEINGARTEN, AFT President

CRISSCROSSING THE COUNTRY in the AFT Votes bus last fall, I often saw fear and hope, anger and aspiration. It feels like our country is in the midst of a race between these competing feelings and values. And while the election deniers were defeated in November 2022, and while overwhelmingly, the public and parents want us to strengthen public schools—not increase privatization and choice—you wouldn't know how clear the will of the people is on these issues when watching governors like Ron DeSantis in Florida or congresspeople like Marjorie Taylor Greene from Georgia.

The vision we are pursuing is clear: An America that offers opportunity—a voice, a vote, a better life—for everyone. A democracy that hears all, respects all. It is a fight, and we are in a race.

Every day, educators provide what kids and communities need. At a recent education town hall led by Senator Bernie Sanders, teachers reminded all of us why they teach. "Why am I an educator?" asked Alison Sylvester. "Because children matter.… Their futures matter." And Arthur Anderson said, "I became a teacher because I wanted to change lives."

Life-changers. Hope-bringers. Fear-crushers. That's who educators are, despite three pandemic years with unprecedented challenges. And most of the country is with you, not just your union.

While Americans rejected extremism and mostly supported pro-education, pro-democracy candidates and ballot measures in the midterms, the extremists won't stand down. That's why we have to keep standing up, demonstrating the contrast between their agenda and our vision:

**The other side is attempting to defund public schools. We're fighting for the essentials students need to thrive.** As of February, 16 state legislatures are considering bills to either create or expand voucher programs, even though research shows such privatization schemes destabilize the neighborhood public schools that serve 90 percent of America's kids.

Meanwhile, in state after state, we are fighting for the investment needed to help kids thrive—the kind of transformative investment we helped win recently in California, New Mexico, and New York. And on the federal level, we are working to increase Title I and IDEA funds, expand career and college pathways for our young people, and increase the number of community schools so children and families can get healthcare, food assistance, and other crucial services in one place.

**The other side has unleashed a torrent of censorship. We're giving students books and sparking a lifelong love of reading.** During the 2021–22 school year, PEN America documented 1,648 books banned from schools and a 250 percent increase from 2021 to 2022 in proposed legislation restricting instruction on race, gender, and American history. Governor DeSantis is leading these attacks by threatening teachers with felonies if they give students the wrong book to read, threatening students and parents with eliminating AP courses, and threatening professors with wiping out academic freedom in Florida's public higher education system.

Meanwhile, the AFT's Reading Opens the World initiative has distributed one million free books to kids already—and in 2023, we're giving away one million more. Our goal is joyful and confident readers, and our events bring together the whole family to enjoy read-alouds, start their very own libraries, and get tips for supporting literacy at home.

**The other side is demonizing teachers and driving them away. We're exploring ways to recruit and retain great educators.** We see this demonization every day; just look at the terms extremists use, like former Trump aide Mike Pompeo suggesting we teach "filth" and Laura Ingraham of Fox News asking about schools as "grooming centers for

# Life-changers. Hope-bringers. Fear-crushers. That's who educators are.

gender identity radicals." Duval County, Florida, third-grade teacher Andrea Phillips wrote, "I'm furious that there has been talk of putting guns in teachers' hands, but I'm not trusted enough to put a book in a child's hand.… [It's] tearing apart classrooms and sending teachers in search of new careers."

Meanwhile, the AFT has laid out concrete ways to solve the teacher shortage crisis and win the respect, support, and pay educators deserve. We're backing Representative Frederica Wilson's American Teacher Act and Senator Sanders's Pay Teachers Act. And through our Innovation Fund grants, we're helping our locals find creative new pathways to recruitment and retention.

Yes, we are in a race: between decency and cruelty, the survival of democracy and the rise of autocracy. And the more we act, the more we will see our vision of opportunity, respect, hope, and aspiration prevail. As author Grace Paley said, "The only recognizable feature of hope is action." ☐

# AMERICAN Educator

VOL. 47, NO. 1 | SPRING 2023
aft.org/ae

*A Union of Professionals*

# The Roots of Learning

This spring, let's renew our commitment to helping all students thrive by focusing on the essentials, from literacy, math, and safety to academic freedom and adequate funding.

12



22



26



35

# You Deliver What Kids and Communities Need

And we strive to deliver a journal that meets your needs—as an educator, a union activist, and an advocate for working families.

To bring you the *American Educator* articles you rely on, and to be sure our union is ready to face today's challenges, **we're now printing** *American Educator* **twice a year**. We'll continue publishing online four times a year at **aft.org/ae**, and we'll mail a summer/fall issue and a winter/spring issue.

## Ready to Get Involved?

### Apply to become a peer reviewer

To strengthen our work, we need to draw on your experience and expertise—so we're developing a peer review board. If you share our commitment to educational equity from early childhood to adulthood, please **visit aft.org/ae-peer-review** to learn more about becoming a reviewer and **submit your application today**.

### Submit a manuscript

We are interested in articles on a wide range of topics, including

- career and technical education;
- diversifying the teaching profession and professoriate;
- students' and educators' mental health;
- community schools and family partnerships; and
- increasing equity in opportunities to learn.

For details on submitting your manuscript, **visit aft.org/ article-submission-guidelines**.
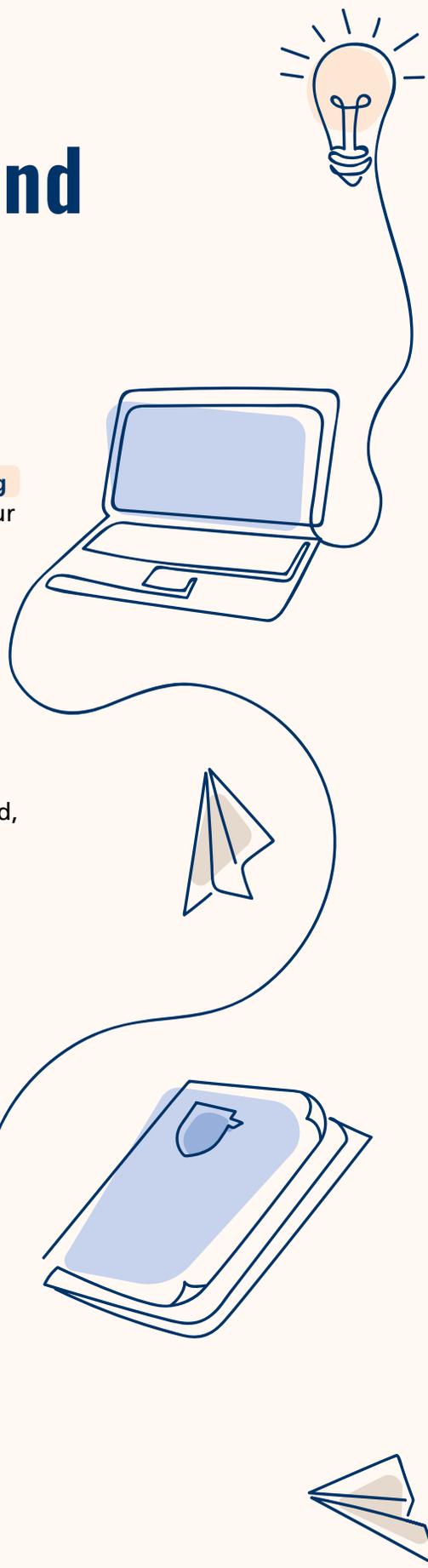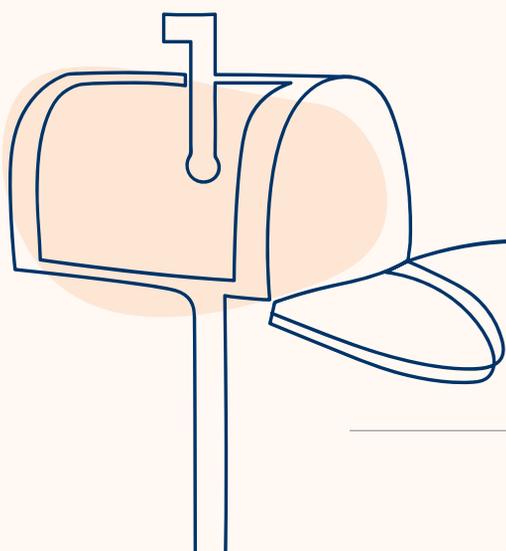
# Creating Confident Readers

## How LETRS Supports Teachers—and Their Students

By Louisa C. Moats
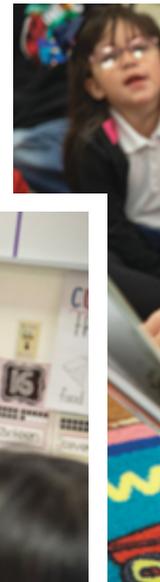
At Vado Elementary School in Vado, New Mexico, students have been thriving since their teachers participated in LETRS professional development. Here, kindergartners in Patricia Ramos's class are listening to a whole-group read-aloud.

n 1999 and again in 2020, I was honored to write *Teaching Reading Is Rocket Science* for the AFT. This report (which is available for free at go.aft.org/keo) summarizes key findings from reading science and their implications for teaching literacy. It also outlines what all early childhood and elementary teachers should know about language, reading, and writing development—a challenging set of concepts that teachers should be studying from the beginnings of their teacher preparation programs to the ends of their careers. I'm heartened that the AFT's reading courses* are grounded in this science, but my hope has long been that *all* teacher preparation programs across the country would be informed by science and structure their literacy courses accordingly. Although there has been significant progress in the last 20 years,[1] we are still far from that goal. Consequently, the students who would benefit the most, including struggling readers and English learners, continue to fall behind at unacceptable rates.

To remedy that, I'm hoping to reach all teachers who have not yet had an opportunity to learn this science with LETRS (Language Essentials for Teachers of Reading and Spelling) professional development.[2] Yes, this is a commercially available program published by a for-profit company. And yes, as the lead author of the program, I have a financial stake in it. However, as a former teacher, psychologist, and researcher, my primary goal is to ensure that every child learns to read—because I know that most children can and will if they are well taught.[3]

Several decades ago (yes, I'm also past retirement age), I hoped that the then-emerging science of reading would be widely adopted by professors, state and district policymakers, textbook publishers, and professional development providers. When I saw resistance in some areas and slow progress in others, I sought ways to improve

*Louisa C. Moats has been a teacher, psychologist, researcher, graduate school faculty member, and author of many influential scientific journal articles, books, and policy papers on the topics of reading, spelling, language, and teacher preparation. After 15 years as a licensed psychologist specializing in evaluation and consultation with individuals who experienced reading, writing, and language difficulties, she served as a site director of the National Institute of Child Health and Human Development's Early Interventions Project and research advisor and consultant with Sopris Learning.*

*To learn about the AFT's courses, see go.aft.org/0ki.

and distribute the courses I had been creating for my graduate students. LETRS was the eventual result.

No information presented in LETRS is unique or proprietary—it just breaks down the "rocket science" of reading instruction into carefully sequenced units so that teachers build the insights and knowledge necessary to succeed. Although LETRS has become popular in recent years, my sincere hope is that in the near future it becomes unnecessary because teachers are already masters of this science as they graduate from their preparation programs and are routinely supported by well-informed administrators and science-based materials. Until that day comes, LETRS is my best effort to give our nation's teachers the information they need. In this article, I explain the origin and development of LETRS and the rationale for the course content.

## Investing in Teachers' Expertise

LETRS is not a program of instruction for teaching reading to children. It is a professional development course of study in which more than 200,000 educators are currently participating. At least four states and 2,500 districts require or suggest that K–3 teachers take LETRS, and the number of participants continues to grow. The goals of LETRS are, in a nutshell, to build teachers' knowledge of language structure and the processes involved in learning to read words, spell, and comprehend, and then to help teachers apply these understandings in their classrooms. Unlike some program developers who believe that fidelity to a curriculum in a box makes teacher expertise unnecessary, my LETRS colleagues and I believe that teachers are indispensable facilitators of students' learning, and thus, teachers must know enough to be good decision makers and problem solvers. Our favorite saying, adapted from Maya Angelou, is, "When we know better, we do better."

Teaching reading is complex. Consider the choices teachers are faced with daily: How do I parcel out instructional time? Which students require more work on which essential components of literacy? How do I use assessments to learn what I really need to know to differentiate instruction? How do I organize and sequence information for instruction in various component skills? How can I integrate the various components? How can I stimulate growth in my students' language comprehension? Published

instructional programs are helpful tools, but it is teachers who confront and resolve these challenges. Instructional problems can only be solved by those who know a fair amount about how print represents language, how children learn to read and write, why some may have difficulty, and what kind of instruction is likely to help students succeed. LETRS was developed in response to evidence that teachers, for the most part, were not receiving enough of this vital information in their pre-service or in-service training—and were eager to learn more.

### How Did LETRS Evolve?

I created the prototype for LETRS in the early 1990s—not as a published program but as two graduate courses I pieced together for teachers earning master's degrees at Saint Michael's College in Colchester, Vermont. At the time, working as a psychologist specializing in language-based learning disorders, I was conducting clinical evaluations of people of all ages who were experiencing dyslexia and other learning difficulties. Through those case consultations, I observed that teachers on the receiving end of my reports seldom had the background, training, or contextual support to implement the recommendations. Those reports often called for systematic, explicit teaching of language skills, including phoneme awareness, phonics, spelling, vocabulary, syntax, text reading comprehension, and writing, both in the regular classroom and in intervention settings.

> LETRS breaks down the "rocket science" of reading instruction into carefully sequenced units.

I petitioned Saint Michael's, where I was a part-time instructor, to offer two electives—Language 1 and Language 2. The first course focused on understanding and teaching word recognition, and the second course focused on oral language and teaching language comprehension. Through informal surveys of teacher knowledge that included such tasks as counting phonemes, identifying orthographic patterns, identifying morphemes, parsing sentences, or recognizing characteristics of narrative text structure, I found that most of the teachers who took the courses (and who were otherwise competent and dedicated) had not previously studied this content. Most were eager to learn and knew that their pre-service preparation in literacy had been inadequate.[4] Simultaneously, a growing body of research (which I summarized in the original *Teaching Reading Is Rocket Science* report and which was authoritatively set forth in the National Reading Panel's report *Teaching Children to Read*[5]) affirmed that reading and writing were dependent on language skills that, if explicitly taught, would make a critical difference in children's literacy growth.

I later offered these Language 1 and 2 courses during the 1990s and into the 2000s at the Greenwood Institute in Putney,

Lee Anna Vasquez, a reading interventionist, uses a sound wall to teach students the articulatory features of phonemes. Here, she shows students how to produce /i/ sounds as in *itch* (top) and *ice* (bottom).

Vermont, and at Simmons College (now Simmons University) in Boston, where my colleagues and I taught graduate students. I also adapted the courses for teachers in the Washington, DC, Early Interventions Project,[6] where I was site director for a project funded by the National Institutes of Health in nine schools that primarily served students of color from low-income families. At the end of that project, the teachers had raised their students' relative standing between grades K–4 from the 17th percentile on average to the 48th percentile in overall reading achievement.[7] Data analyses at the conclusion of that project indicated that the professional development component was instrumental in both teacher and student growth.

Through that first decade of teaching both courses to teachers in varied settings, I modified the pace of learning and the activities used to reinforce critical concepts. I discovered, for example, that the most difficult component of instruction for teachers to grasp in sufficient detail was phonology and phoneme awareness. Multimodal phoneme awareness activities and analysis of spelling errors turned out to be extremely important in understanding how speech is represented by print. I also learned that the querying process expected of teachers during text reading—the indispensable teacher's tool for building a mental model of the text—took a great deal of practice and coaching. On the whole, the evolution of course content and pedagogy (which continues to this day) has involved slowing down the pace, giving tons of varied practice, and increasing the frequency with which concrete activities are linked with theory and research. The third edition of LETRS that is now in use was thus refined over about three decades.

### LETRS, Year 1: Foundational Reading and Spelling Skills

The LETRS courses, which are designed for teachers in grades K–3, are to be implemented over two years. In the first year of LETRS (book 1, units 1–4), teachers learn how to teach phoneme awareness, beginning and advanced decoding, word recognition, and spelling. In the second year (book 2, units 5–8), participants shift their focus to oral language, vocabulary, reading comprehension, and writing in response to reading. Several theoretical frameworks for understanding reading and writing in grades K–3 provide conceptual cohesion and are woven throughout the eight units. Each unit, however, allows teachers to focus on one important aspect of teaching at a time. The courses build knowledge in a progressive sequence in which one topic supports and is connected to the next—a feature that distinguishes LETRS from professional development offered as a patchwork of various options that teachers can self-select.

### Theoretical Frameworks and Illustrations

LETRS continually references several widely accepted, scientifically validated models of reading acquisition and reading processes. The two-part organization of LETRS parallels a well-validated construct called the Simple View of Reading.[8] The Simple View states that reading comprehension is the product of word recognition and language comprehension (WR x LC = RC). Proficient reading requires competence in each skill domain. Thus, each major component of reading receives equal time in professional development, including the subskills integral to each part of the equation. Allocation of instructional time across these domains and integration of basic skills with meaning making are constantly reinforced throughout LETRS.

Other models and frameworks that provide conceptual glue are Linnea Ehri's phase theory of reading development,[9] Hollis Scarborough's rope model,[10] Mark Seidenberg's triangle model of word recognition,[11] and Jane Oakhill and Kate Cain's research on reading comprehension.[12] Research from brain science is also referenced, especially in discussions of learners with dyslexia and related reading difficulties.[13]

> ## Children must gradually differentiate the sounds in spoken words and map them to letters and letter sequences.

### Phoneme Awareness

The ability to recognize printed words out of context, quickly and accurately, is gained *not* by a visual imprinting process, but by building a mental map connecting speech with print. By learning incrementally how graphemes (letters and letter combinations) represent speech, novice readers and spellers gradually build a mental storehouse of known words that can be instantly recognized and recalled.[14] Every phase of this process depends on the ability to recognize and mentally manipulate the phonemes or

speech sounds that make up words (phoneme awareness). From pre-alphabetic, to partial alphabetic, to full alphabetic, and then to consolidated word recognition and recall, children must gradually differentiate the sounds in spoken words and map them to letters and letter sequences.

The second unit of LETRS is all about phonemes and phoneme awareness. While many sources on teaching reading name phoneme awareness an essential component of instruction and give examples of activities that help students build awareness in K–1, LETRS appears to be unique in its requirement that teachers learn the phonemes of English—not as sounds represented by letters of the alphabet, but as building blocks of speech that are distinguished by articulatory properties or features. Learning the consonant and vowel sound systems in English allows teachers to understand why certain phonemes are more difficult to perceive and learn than others, why many students confuse specific phonemes, and why English learners typically benefit from explicit instruction in how the sounds of their home language differ from, and overlap with, English.

Referencing charts with the 25 consonant phonemes and the 18 vowel phonemes in English (plus schwa, the unstressed vowel), teachers learn how to pronounce, describe, and compare them. The charts we use (below) show clearly which consonants differ only in voicing and which share a place of articulation (e.g., the tongue is behind the teeth with /t/, /d/, /n/, /s/, /z/, and /l/). The vowel chart shows that each vowel differs from its neighbor by subtle changes in the position of tongue, jaw, lips, and air flow. Armed with this information, teachers are in a better position to select easier or harder examples of contrasting sounds (for example, the vowels /ĭ/ and /ŭ/ are easier to distinguish in speech than the vowels /ĭ/ and /ĕ/, and the consonants /ch/ and /b/ are easier to distinguish than the consonants /ch/ and /j/).

## Figure 1: English Vowels by Order of Articulation

**Front, High (Smiley)**                                                            **Back, High**

/ē/ (equal)                                                                          /y//ū/ (unicorn)
    /ĭ/ (itch)                                [ə] (sof<u>a</u>)                       /ū/ (moon)
        /ā/ (apron)                                                    /ŏŏ/ (book)
            /ĕ/ (edge)                                            /ō/ (open)        **(Rounded)**
                /ă/ (apple)                            /aw/ (saw)
                    /ī/ (ice)                    /ŭ/ (up)
                        /ŏ/ (octopus)

**Middle, Low
(Open)**

/oi/ (boy)                                                                           /er/ (her, bird, turn)
/ow/ (cow)                                                                           /ar/ (star)
                                                                                     /or/ (born)

## Figure 2: English Consonant Phonemes by Place and Manner of Articulation

| | Bilabial (Lips Together) | Labiodental (Teeth on Lip) | Interdental (Tongue Between Teeth) | Alveolar (Tongue on Ridge Behind Teeth) | Palatal (Tongue Pulled Back on Roof of Mouth) | Velar (Back of Mouth) | Glottal (In the Throat) |
|---|---|---|---|---|---|---|---|
| Stops Unvoiced Voiced | /p/ /b/ | | | /t/ /d/ | | /k/ /g/ | |
| Nasals | /m/ | | | /n/ | | /ng/ | |
| Fricatives Unvoiced Voiced | | /f/ /v/ | /th/ /<u>th</u>/ | /s/ /z/ | /sh/ /zh/ | | /h/ |
| Affricates Unvoiced Voiced | | | | | /ch/ /j/ | | |
| Glides Unvoiced Voiced | /wh/ /w/ | | | | /y/ | | |
| Liquids | | | | /l/ | /r/ | | |

Because students learning English disproportionately have a hard time learning to read English, and because students whose home language is Spanish comprise 75 percent of English learners in the United States,[15] we deliberately contrast the phonemes of English with those of Spanish using the consonant and vowel charts. When Spanish-speaking students learn a sound in English that is not in Spanish, such as /z/, instruction should be explicit and systematic and refer to articulation. There are many phonological differences between the two languages, as well as differences in the way letters are used to represent sounds (e.g., the letter *j* represents the sound /h/ in Spanish); explicit instruction in how each system works is extremely helpful to teachers of multilingual learners and to their students.

### Building Teacher Knowledge of Phonology

Learning the phoneme charts and the pronunciation of the phonemes is only the beginning step. Literate adults store words in their memories by consolidating each word's sound(s), spelling, and meaning into an amalgamated unit. We often observe that it is quite difficult and requires much practice for teachers to uncouple their awareness of the sounds in a word from their knowledge of its spelling. The number of letters in a printed word often does not correspond to the number or the identity of its phonemes. For example, *box* has four phonemes (/b/, /o/, /k/, /s/) and *scratch* has five (/s/, /k/, /r/, /a/, /ch/). Teachers must direct their attention away from print to identify phonemes, or else they will continue to confuse letters with sounds and to be unclear about the sounds in words during phoneme manipulation practice. They will also continue to teach students misleading information such as the idea that English has "five vowels" (*a, e, i, o, u*) or that the *qu* combination is "one sound." English has 18 vowel sounds and five letters to represent them (plus a few helpers: *w*, *y*, and *gh*). The *qu* combination is actually a consonant blend (/k/, /w/) in which the letter *u* represents a consonant glide. If *u* always represented a vowel, then the word *quick* would have two syllables (two different vowel sounds); obviously, it does not.

In LETRS, we engage participants in several activities that help them uncouple their phonological (sound) processing systems from their orthographic (print) processing systems. For example, we have teachers write out a phonetic transcription of the sounds in the names of the 26 letters, to see where there is overlap and where letter names differ substantially from the sounds they represent (such as *w*, /w/). Clarity about which is which—phoneme or letter name—allows teachers to put themselves in the shoes of the novice learner who comes to reading armed with oral language and who must figure out how spoken words match up with print. The step after a phoneme awareness "warm-up" in a code-focused lesson is teaching how the elements and patterns of our writing system represent language at several levels: the sounds, meanings, and grammatical roles of words.

### Decoding and Spelling

Once the first reference point for learning the print system—identification and sequencing of phonemes in spoken words—has been thoroughly explored by teachers, the next two units of LETRS address phonics and spelling instruction. We want teachers to integrate phoneme awareness, decoding, spelling, and word reading for automaticity in their foundational skill lessons, but we build teachers' competence with one element at a time before expecting that integration to occur. We emphasize the value of a structured phonics lesson plan that progresses through an "I do, we do, you do" format for teacher-led instruction. As they learn the phonics lesson sequence, teachers see and practice many specific activities for the purpose of explaining concepts, providing practice, and applying concepts to text reading and writing. Demonstrations occur through embedded videos and role-play sessions. We also ask participants to apply what they are learning with at least three students in their classes through "bridge to practice" assignments.

One goal of LETRS is to equip teachers with knowledge of English orthography sufficient to explain why words are spelled the way they are. To do so, teachers are encouraged to draw upon any of the following five distinct sources of information:

**Reading should be undertaken for a purpose, and that purpose should serve a larger, knowledge-building goal.**

1. *Language of origin.* English is a richly expressive language largely because it has adapted words from many languages; learning about those languages helps unlock some spelling mysteries. For example, words of French origin often use *ch* for the sound /sh/ (*charade, brochure, Charlotte*), but words of Greek origin often use *ch* to represent /k/ (*character, chorus, scholar*).
2. *Phoneme-grapheme mapping.* Graphemes are letters and letter groups that represent phonemes. For example, the graphemes in *sleigh* are *s-l-eigh*, while the graphemes in *thatch* are *th-a-tch*. Some letters, like *e*, have many jobs to do in this sound-letter correspondence system.
3. *Position-based spellings.* Noting the position of a sound makes the spelling far more predictable. For instance, "long a" is represented by *ai* in the middle of syllables, but *ay* is used at the ends of syllables (*gain/gay, bail/bay, paid/pay*). The same pattern holds for the slider vowel (diphthong) /oi/, which is spelled *oi* if it is followed by a consonant but *oy* if it is not (*toil/toy, coin/coy*).
4. *Arbitrary rules of letter use.* Although English spelling is more rule governed than many people believe, there are some arbitrary patterns that must be learned either explicitly or implicitly. For instance, no words in English end in the letters *v* or *j*; the letters *h*, *w*, and *x* are among those that are not doubled (unless borrowed from other languages or put in compounds like *hitch-*

*hiker* or *bowwow*);* and certain letter sequences do not occur within syllables, such as *cw* or *ngk*.

5. *Morphology*. The meaningful parts of words (morphemes) are preserved in spelling even though they may not match pronunciation very closely. For example, in *ex-press-ion*, *ex* is a prefix, *press* is a root, and *ion* is a suffix. If students have not learned these morphemes, they may write "ekspreshun," which is the way the word sounds.

When teachers have not had ample opportunities to learn how to explain words' spellings, they are much more inclined to believe—and teach—that the English writing system is chaotic and nonsensical.[†] Believing that is the case too often leads educators to rely on "sight" word methods such as "using your eyes like a camera," drilling with flash cards, telling students to look at pictures and use context to guess an unknown word, or reciting letter sequences to memorize words.

One central goal of LETRS is to put meaning over rote memorization. That's why part of the phonics lesson plan is working with the meanings of words that students are learning to decode or spell. Our theoretical frameworks emphasize the importance of connecting sound, meaning, and spelling while the mental code-mapping process is under construction. Decodable words, phrases, sentences, and stories should be targets for practicing what has been directly taught and should be used for activities such as multiple-meaning webs, antonym and synonym pairings, segmenting and blending words by morpheme (e.g., *play-ful*, *play-ful-ness*, *re-play-ed*), sentence anagrams, sentence sequencing, and summarizing.

One of the skills we help teachers develop is selecting different kinds of texts for varied purposes. To that end, we ask participants to analyze and compare the words in leveled texts, predictable texts, "sight word" texts, and decodable texts (which are designed to reinforce the use of phonics to tackle unknown words). Careful analysis of texts is eye-opening for many participants who have not realized that leveled and predictable books require students to try to read many words whose spelling-sound correspondences have not been directly taught. While analyzing decodables, teachers can identify the specific correspondences that will enable students to read the words independently—without relying on contextual guesswork.

Understanding of the process of reading development, combined with knowledge of the writing system itself, usually results in teachers shifting toward using decodable books to reinforce instruction in phonics. The transition away from leveled texts may pose challenges if schools have limited funds, but some free or inexpensive materials are available online.[‡]

### Assessments

Differentiation of instruction and assignment of students to flexible, needs-based small groups is only valuable if relevant data are driving the grouping process. Within book 1 of LETRS, teachers learn to use a phoneme awareness screening test,[§] the

LETRS Phonics and Word Reading Survey, and the LETRS Spelling Inventory (a diagnostic survey). In addition, we encourage the use of Acadience Reading's screeners, progress-monitoring tools, and supplementary diagnostic tests.** These informal measures provide enough data to make initial decisions about student grouping. We have teachers work through case studies with student and classroom data from these sources so they can learn how to use the data to meet students' needs.

We also coach teachers on interpretation of spelling and reading errors. Students' errors or naive attempts at word reading or spelling are windows into their processing of both speech and print. Linnea Ehri's phase theory, combined with error analysis, can indicate whether a student needs additional work on phoneme awareness and, if so, which sounds need practice and at what level of challenge. Likewise, the data can indicate which phonics concepts should be targeted, which morphemes the student is ready to learn, and whether the student is receiving sufficient practice to become fluent and automatic in word reading and/or spelling.

### LETRS, Year 2: Vocabulary, Language Comprehension, and Writing

Referring again to the Simple View of Reading (Word Recognition x Language Comprehension = Reading Comprehension), participants in the second year of LETRS focus on the language comprehension part of the equation. Beyond the translation of the written alphabetic code into speech, comprehension of written text involves very much the same verbal capacities as comprehension of spoken language. Those include background knowledge, knowledge of word meanings, understanding of complex sentence structures, awareness of text structures (such as narrative and informational text formats), and abstract reasoning (including inferencing). Furthermore, the process of comprehension during reading begins with literal meanings and builds to a mental model of deeper meanings and associations. We envision the teacher playing a very active role in facilitating text comprehension through careful pre-reading preparation, purposeful questioning during reading, and use

---

*In the print edition, this stated that "letters *c*, *u*, and *x* are among those that are not doubled." That statement should have been qualified regarding combining Latin roots and a prefix (as in *accord*) or the neutral noun marker *-um* (as in *continuum*).

[†]To learn more about English spelling, see "How Words Cast Their Spell" in the Winter 2008–2009 issue of *American Educator*: go.aft.org/uxe.

[‡]For free decodable texts, see opensourcephonics.org.

[§]We use the Phonological Awareness Screening Test, which is available for free (along with guidance for using it) at thepasttest.com.

---

**Acadience's materials are available for free at acadiencelearning.org/acadience-reading/k-grade6.

of various after-reading activities to help students deepen and consolidate their understandings. All of this, we recommend, should occur with high-quality texts selected for their knowledge-building potential.

### Oral Language and Literacy

Throughout LETRS, we emphasize the intricate interaction between and interdependence of oral language competence and literacy. We review data on early language development and the contextual factors that facilitate it, especially the verbal behavior of caretaking adults, such as taking turns while talking about shared experiences, enthusiastically answering children's questions, and purposefully mixing in new vocabulary. (This aspect of early childhood experience is a major focus of LETRS for Early Childhood Educators,[16] which is aimed specifically at the needs of children 0–5 years of age.)

> A common reaction of participating teachers is, "Why didn't anybody teach me these things before?"

### Vocabulary

Book 2 of LETRS begins with a unit on understanding and teaching vocabulary. Teachers learn that knowledge of individual word meanings is a major factor in overall reading comprehension outcomes. To bring the issue home, teachers complete exercises designed to challenge their own comprehension, such as reading passages with obscure words. Book 2 reviews research on the relationship between word-learning opportunities and overall language and reading growth between infancy and third grade, with an emphasis on how to narrow gaps that arise early in development. During the unit, participants are also expected to acquire and then evaluate how well they have retained relevant professional terms so that they expand their own vocabulary while they are learning principles of instruction to apply with students.

Like many other professional development sources, we discuss routines for in-depth teaching of selected words.[17] The needs of multilingual learners for expanded vocabulary support are addressed throughout. Teachers use example texts to select, plan, model, and share how they would teach key terms to their students. Through practice exercises, they also apply techniques such as teaching multiple meanings of words, categorizing, scaling words on a qualitative dimension (e.g., *miserable* to *ecstatic*), and using semantic feature analysis. In addition to promoting students' use of new words, a goal of the unit is to upgrade the complexity and precision of teacher talk in the classroom so that students will be continually exposed to richer and less common vocabulary.

### Text-Driven Comprehension Instruction

Units 6 and 7 of LETRS prepare teachers to facilitate their students' understanding of complex and worthwhile texts. We do not want teachers to equate comprehension instruction with reading a text silently and applying comprehension strategies to answer multiple-choice questions. Reading should be undertaken for a stated purpose, and that purpose should serve a larger, knowledge-building goal.* Our aim is for teachers to view themselves as chief navigators—active guides who will help students make connections between what they know and what the text says. To prepare teachers for that role, we ask them to distinguish the mental *processes* involved in constructing a text's meaning and the visible *products* that students generate along the way. We examine what occurs in the mind during reading and review research showing where comprehension can and does break down. We ground this discussion with a graphic illustration depicting the contributions of long-term memory and working memory as we make sense of language.†

Our emphasis is not so much on teaching traditional strategies (such as making predictions, finding the main idea, questioning, and summarizing), but on selectively employing such techniques in the service of exploring the meanings in a specific text. Research-supported strategies are embedded within three distinct phases of teaching a text for a defined purpose: before, during, and after the reading. Our comprehension planning guide addresses key considerations and actions to take in each phase. Here are some activities teachers rehearse during these LETRS units:

Preparing the text (before reading):

- Decide and state the "enduring understandings" you want your students to take away from the reading.
- Preview the text to identify and select key vocabulary for in-depth instruction.
- Preview the text to find challenging forms of academic language, such as unusual syntax, word use, figures of speech, or pronoun references.
- Prepare an introduction to the content that will build sufficient background knowledge to begin the reading.
- Anticipate where you will probably ask questions that will help students make inferences and build their mental models of what the text says.

During the reading:

- Inject clarifications as necessary, such as brief definitions of topic-specific terminology.
- Pose queries to help students clarify, associate, summarize, and predict what might happen.

After the reading:

- Use graphic organizers, two-column note charts, story boards, and/or illustrations to review, retell, or summarize the reading.
- Structure writing tasks that respond to the reading.

---

*For more on the importance of this larger goal, see "Building Knowledge: What an Elementary Curriculum Should Do" in the Summer 2020 issue of *American Educator*: aft.org/ae/summer2020/wexler.
†For details on long-term memory and working memory, see "How Knowledge Helps: It Speeds and Strengthens Reading Comprehension, Learning—and Thinking" in the Spring 2006 issue of *American Educator*: go.aft.org/ap4.

### Writing in Response to Reading

The final unit of LETRS addresses beginning writing instruction. We discuss why writing is challenging for many students and review research showing that mastery of writing foundations (handwriting, spelling, punctuation, basic grammar) facilitates composition of longer and higher-quality text. This unit devotes more time to a topic introduced in unit 6: how to recognize and construct simple, compound, and complex sentence structures, and how to link sentences together in a cohesive paragraph or composition. To wrap up the unit, we review writing samples with the help of an evaluation rubric and use them to pull together many other concepts taught throughout the whole LETRS course of study.

## Impact of LETRS

LETRS professional development is designed to be implemented over two years so that teachers have time to absorb, integrate, and apply the concepts. Teachers often experience complex emotional reactions as they learn more about the science of reading and the structure of language. Some teachers express grief and regret over their past use of ineffective (but widespread) practices and anger that their prior opportunities to learn about teaching reading were inadequate or even misinformed. A common reaction of participating teachers to their experience in LETRS is, "Why didn't anybody teach me these things before?" The value of the information is readily apparent when students begin to make progress. Student growth quickly validates teachers' efforts to teach language, reading, and writing explicitly.

In translating concepts and guidance from research, we encourage teachers to confront and abandon ideas, practices, and programs that many have used or been taught—often under district or state standards and requirements—that do not align with current understandings grounded in evidence. For example, many districts are still wedded to programs and approaches based on "cueing systems," a tenet of guided reading that does not recognize the central role of phonology or phonic decoding in learning to read and spell. An underlying assumption that reading is primarily a visual imprinting activity drives other misconceived but all-too-common practices, such as posting "sight" words on an alphabetic word wall regardless of the beginning sounds in the words (e.g., posting *out*, *once*, *only*, and *often* under *o*). Many district and state standards require kindergarten and first-grade readers to memorize dozens of words on flash cards or spell lists of words by rote visual memory, even though in reading science, all words are eventually learned "by sight" through a process of speech-to-print mapping, beginning with phoneme-level processing.[18] Turning away from common but unsupported practices poses dilemmas for teachers and schools because the misconceived ideas have been established in reading education for so long. Many published programs have yet to catch up to the science, and relatively few incorporate good instruction with both components of the Simple View equation. The transition from status quo to new approaches can be fraught with problems of curriculum alignment and time allocation that have no easy solutions. Nevertheless, many schools and districts have reported significant gains after deciding to move ahead, such as the Cedar Rapids Community School District in Iowa, Enid Public Schools in Oklahoma, and the Cullman City Primary School in Cullman, Alabama. As several educators at Vado Elementary School in New Mexico explain (see page 12), the transition away from unsupported practices can be difficult—but the rewards are soon apparent. As kindergarten teacher Patricia Ramos put it, "Now with explicit teaching, the light bulb moments are brighter for sure."

Perhaps the dramatic gains in Mississippi between 2014 and 2019 are the best example of what can happen when all aspects of a system are working toward the same goal. Mississippi was the only state to make significant progress on fourth-grade reading on the National Assessment of Educational Progress in 2019, after a five-year effort that included LETRS training for K–4 teachers, K–8 special education teachers, elementary-grades administrators, and most professors of reading.[19]

In my experience, knowledge-building through LETRS is more likely to result in student improvement if it is supported with in-class coaching, training for school leadership, alignment of instructional materials, and assessments that enable teachers to differentiate instruction. It is very frustrating for teachers to participate in LETRS if these supports are not provided by a school or district, and certainly the impact of the training will be diluted if teachers are left on their own to do the best they can with materials that are not based on the science of reading.

A lesson we have learned many times over is that schools with low-performing students can "beat the odds" when instruction aligned with scientific research is consistently delivered and supported.[20]† Although it has taken decades for many textbook publishers, college faculty members, and organizations to embrace reading science, we are optimistic that, finally, our collective efforts may be paying off. □

**For the endnotes, see aft.org/ae/spring2023/moats.**

---

†For more on teaching struggling readers, see "Identifying and Teaching Students with Significant Reading Problems" in the Winter 2020–21 issue of *American Educator*: aft.org/ae/winter2020-2021/vaughn_fletcher.

**During small-group instruction, students build consonant-vowel-consonant (CVC) words.**

# Light Bulb Moments

*Vado Elementary School Shines with LETRS Professional Development*





Two children identify sounds on a sound wall (left); a child writes consonant-vowel-consonant (CVC) words (above).

As part of New Mexico's education "moonshot," which includes raises for educators and tuition-free college for most in-state students, the state is making a substantial investment in ensuring its children become strong readers. The statewide initiative, called Structured Literacy New Mexico, launched at the beginning of the 2020–21 school year and emphasizes consistent use of evidence-based practices (learn more at go.aft.org/bmw). While the pandemic complicated implementation, one core component is LETRS training for kindergarten through fifth-grade literacy educators (including interventionists and administrators) throughout the state.

*To learn more about how LETRS is helping teachers across New Mexico reexamine their instructional practices, we asked Carol Tolman, who has coauthored many LETRS texts and online supports with Louisa Moats, to sit down with educators involved in the transformation of instruction at Vado Elementary School in Vado, New Mexico. Tolman was a classroom teacher and special educator at the elementary and secondary levels for over 25 years. She spoke with Cheryl Coyle, Vado's principal/directora; Lee Anna Vasquez, a reading interventionist; Patricia Ramos, a kindergarten teacher; and Keren Buenfil, a first-grade teacher. They were joined by Christy Quesada, assistant director of Literacy and Humanities in the New Mexico Public Education Department.*

*—EDITORS*

PHOTOS BY PAMELA WOLFE

**CAROL TOLMAN: Cheryl, could you begin by sharing a little bit about your school?**

**CHERYL COYLE:** Vado Elementary has a vibrant community. We're a 50/50 dual language school offering Spanish and English, and about two-thirds of our 329 students are in the dual language program. The school is 100 percent Title I; all our students receive free breakfast and lunch. Almost 100 percent of our students are Hispanic, and 59 percent are English learners on their way to being bilingual and biliterate. Our ultimate goal is to provide a high-quality 21st-century education, empowering all students to become literate, productive members of their global community. We want our students to value their multiculturalism, create success today, and prepare for tomorrow.

**CAROL: That's such an important mission. What then led you to choose LETRS as your literacy professional development?**

**CHERYL:** In May of 2018, the state of New Mexico requested applications for a Striving Readers Comprehensive Literacy grant. I was fortunate to be part of a team that wrote the grant. During the grant writing process, we decided to focus on providing LETRS training for all K–3 teachers. A few people within the district had attended LETRS training and felt that it was "phenomenal." The general feedback was that they had wished they had taken it as a course in college and

felt that all elementary teachers should receive this training. It also met the grant requirements that all professional development and resources be researched based. So, when we wrote the grant, that's what we requested. The following semester, in the fall of 2018, all kindergarten and second-grade teachers in the Gadsden Independent School District (ISD) started LETRS training, and then the following year, Gadsden ISD added first grade, special education, and administrators. Then we added third grade, and now our fourth-grade teachers have started their journey learning about the science of reading.

**CHRISTY QUESADA:** Statewide, we started a couple of years ago with first-grade teachers, reading interventionists, and special education teachers. That was during COVID-19, unfortunately, so some people understandably pushed back. But I felt we couldn't wait—we knew that our students in New Mexico were struggling, and there was never going to be a perfect time. During the 2021–22 school year, we added in kindergarten teachers in the fall and second-grade teachers in January. This year, we wrapped in third grade. And at this point, all elementary special education teachers should be enrolled in or have completed LETRS. And along the way, administrators are enrolling in LETRS too.

**CHERYL:** Making these changes during the pandemic has been hard, but I agree that we couldn't wait. We were a balanced literacy district, and we were struggling. Our reading scores had been flat for years. We tried everything we could think of, but nothing was working. With LETRS, we've been systematic in our rollout, including training new teachers as they come in. It's been great to do this as a district because we now have seven instructional coaches and one district instructional specialist who are LETRS facilitators, so we have built the capacity to help carry us forward.

**CAROL: How has your LETRS experience influenced instructional practices at Vado?**

**LEE ANNA VASQUEZ:** When I reflect upon both my undergraduate and graduate teacher preparation programs, it was very superficial regarding how to teach children to read. Both programs focused on balanced literacy and whole language. Balanced literacy is an instructional approach that strikes a balance between whole language and phonics. Whole language is a method of teaching children to read by recognizing words as whole pieces of language. As educators, we were expected to surround children with books and teach

them to make meaning of text from the three cueing reading strategies, which involved prompting students to draw on context, sentence structure, and the reference to letters to identify words.

For the first 18 years of my teaching career, I taught kindergarten through second grade with a balanced literacy approach. During that time, I felt that I was successful teaching students to read. When our school was first introduced to LETRS, I was a bit apprehensive. But as my knowledge of the science of reading evolved, I recognized there was more I could do. Although I was already using many good instructional practices, they were not as targeted, intentional, or explicit as they should have been.

As I've grown in my role as a reading interventionist, I've realized that this was particularly true of our phonics instruction. We taught some phonics, but we didn't follow a scope and sequence. Honestly, we didn't know the importance of teaching phoneme awareness and then moving on to letter-sound and letter-symbol correspondences. And without a scope and sequence, we were leaving gaps in children's reading and writing skills.

With LETRS and the science of reading, now I know how I can best teach foundational reading skills such as phoneme awareness and phonics, and I see the importance of teaching morphology, which I never even thought of before LETRS. This professional development also helped strengthen my skills in developing students' spoken and written language. All of this combined has improved my students' ability to read fluently with comprehension.

**KEREN BUENFIL:** Just like Lee Anna, LETRS was an eye opener for me because I had been trained under the umbrella of balanced literacy. I'm bilingual, with English as my second language. My colleagues and I knew there was something missing from our teaching, especially for our second language learners. Spanish is a very phonetic language, but our kids were even suffering in Spanish. LETRS gave us a new perspective, showing us what was missing; we realized that we needed far more explicit instruction incorporating all of the components from Scarborough's Reading Rope* for our kids to become readers.

This is making a difference for my first-graders. I have seen how they have grown. This year, one student came to first grade with no previous schooling. Because of the

_____

*To learn about Scarborough's Reading Rope, see go. aft.org/3b9.



**"When you take the guesswork out of learning to read, children read for enjoyment."**

**–Patricia Ramos**

way that we have been explicitly instructing him in his native language and in English, by October he was already making rapid progress and transferring skills to English. I get the chills because he's even transferring skills to write in English. It is really amazing to see. I'm sure we're on the right path—I'm seeing what a difference it makes to teach skills in the right sequence.

**PATRICIA RAMOS:** I agree with Lee Anna and Keren. I will just add that the LETRS professional development has given us the perspective needed to focus on what literacy skills need to be taught, why they need to be taught, and how to plan to teach them explicitly. It is the road map that was missing. In my kindergarten classroom, I now know the importance of stimulating that left hemisphere of our little scholars' brains. We use music and movement, engaging the whole child when teaching the fundamentals of reading in a fun way. It has just been amazing to see the light bulbs.

**KEREN:** I can see a difference in my first-graders this year because Patricia and all of our kindergarten teachers were very good last year about providing the kids explicit instruction in phonemic awareness and the manipulation of sounds. My students are coming to first grade with more skills this year.

Before we learned the science of reading through LETRS, we used a mix of strategies—some of which were not effective.

Sometimes, we had children guess words based on the pictures, and children were stumped when there wasn't a picture to help them. Now, with our decodable readers, children are sounding out the words and reading.

**PATRICIA:** So many light bulbs are turning on. This school year, I have a little girl who was very quiet at the beginning. She was



"You have to start somewhere. Start here. Start today."

–Cheryl Coyle

reluctant and lacked confidence. But by October, she knew her letters' names, both uppercase and lowercase. She knew the 26 foundational sounds, and she was ready to fly. She started coming up to me to ask, "How do I spell that word?" I encouraged her to "stretch out those sounds and look at the individual letters from the beginning of the word." Now she is confident and learning so quickly. That is a great benefit of explicit instruction: I can see that she knows she is correct. Those moments are so gratifying because she comes back the next day and wants to do it again. When you take the guesswork out of learning to read, children read for enjoyment and not as a task.

**KEREN:** I am also seeing my first-graders making connections. For example, when I wrote the sentence "*She writes in her notebook,*" a child questioned why *notebook* was written as one word. He said, "Ms. Buenfil, I think you wrote *notebook* wrong. There are two words within that word, but you did not separate the words. I think it's supposed to be *note book.*" I replied, "Yes, you are right. There are two words,

but *notebook* is a compound word. It is a word that you can break apart." We then had a class discussion of the meaning of the words *note* and *book*. That was an awesome moment of learning, with vocabulary and morphology.

**PATRICIA:** Students are making connections between the four processors that are active in the reading brain. These are phonological, orthographic, meaning, and context, which are encompassed within the Four-Part Processing Model offered in our LETRS training. Students are independently and confidently questioning everything about reading as they make meaningful connections.

**KEREN:** Yes!

**CAROL: That's wonderful. Beyond these individual examples, what data do you collect and what do the data show you? How do you know that the students are progressing?**

**LEE ANNA:** In balanced literacy, the assessments we used were not research based. In retrospect, I see that we were leaving gaps in a student's foundational reading skills and decoding ability. We are now triangulating data. We try not to use assessments that are not research based. Our state mandates that all K–2 students take Istation's Indicators of Progress early literacy assessment. In addition to this assessment, at Vado Elementary we use the Phonological Awareness Screening Test (PAST) for all kindergarten students and for any student displaying a weakness in phonemic awareness.* In kindergarten through fourth grade, we are administering the LETRS

---

*The PAST, which LETRS recommends, is available for free at thepasttest.com.

Phonics and Word Reading Survey. With these data, we deliver targeted instruction that is supported by the scope and sequence recommended in LETRS.

I love the way our teachers are using the LETRS Phonics and Word Reading Survey for their structured literacy groups. In the past, the data that were used to drive our small-group instruction were not systematic. For example, if a shared reading book had several words with *ea* spelling patterns, we would focus our instruction on that spelling pattern. The next week, if a book had words with *oo*, we would change our focus to that particular spelling pattern. We were not following a scope and sequence. Together, the use of the LETRS scope and sequence and the LETRS Phonics and Word Reading Survey are very empowering.

**PATRICIA:** Everybody is not going to be at the same level in the classroom, so differentiating instruction is important. I find the LETRS survey especially helpful, providing me with the data needed to meet their individual needs.

**CAROL: This is great to hear. Teaching directly and explicitly while following the scope and sequence is crucial. Being confident in what kindergartners, first-graders, and second-graders should know, and being able to identify where they are struggling, are essential for meeting their needs. What words of advice would you share for others who are starting to learn about the science of reading?**

**CHERYL:** I think they just need to go for it. They should read *The Knowledge Gap* by

Patricia Ramos's kindergartners aim at the reading target to initiate learning.

Natalie Wexler[†] and listen to Emily Hanford's audio documentary *At a Loss for Words*[‡] and podcast *Sold a Story*.[§] To my fellow administrators, I'd encourage them to put together a plan and say, "Our students deserve to know how to read. And the only way to teach all students how to read is for us to understand structured literacy and how the brain works when learning to read." You have to start somewhere. Start here. Start today.

**LEE ANNA:** I recently had a conversation along these lines with a colleague who said, "I know how to teach children how to read." I replied, "I thought so too. But it's amazing everything that I have learned about the science of reading through LETRS. It is humbling to realize the gaps that I left in previous student learning. We're lifelong learners, and there is always more to learn."

**CHRISTY:** We can't leave reading to chance. Yes, we do have great teachers. They know how to teach. But we can't leave it to chance. We need to ensure that our teachers are fully trained, fully aware of what good instruction looks like. All of our kids deserve that. Reading is a right.

**CHERYL:** I agree. We all need to keep learning how to teach reading. Schoolwide, our approach is much more explicit than before. We retained some practices from the past, which may be a comfort to those who are just getting started, but we are far more explicit and intentional.

**LEE ANNA:** Yes, explicit teaching of foundational skills is our focal point.

**PATRICIA:** With explicit teaching, the light bulb moments are brighter for sure. Reading is so much deeper than just opening a book. I want my students to be fluent readers, not just survivors. LETRS has the tools to empower anyone to become a better reading teacher. So, embrace the change. Words of advice: gather all the resources, ask the questions, and seek the knowledge.

**KEREN:** As a dual language teacher, one thing I will add is that you can use the knowledge you gain through LETRS professional development in English and Spanish. Explicit instruction works well in Spanish too, and it helps students apply their Spanish skills to their reading and writing in English.

[†]For an excerpt from *The Knowledge Gap*, see "Building Knowledge: What an Elementary Curriculum Should Do" in the Summer 2020 issue of *American Educator*: aft.org/ae/summer2020/wexler.
[‡]*At a Loss for Words* is available at go.aft.org/wc5.
[§]*Sold a Story* is available at go.aft.org/d11.

**CAROL:** Absolutely. We do have to be aware of the differences, such as in phonemes, graphemes, and how we use vocabulary and sentence structure, but you're so right; there are lots of essential skills that apply to English and Spanish. When you strengthen language systems within the brain, the benefits apply across languages, which is so rewarding.

The examples you've shared show the depth of your engagement. What types of supports have been helpful for you?

> **"We all have the same goal: to impact student achievement and to build our capacity as educators."**
>
> **–Lee Anna Vasquez**

**CHERYL:** I prioritize time for teachers to sit down and truly dig through what they are teaching. As a district, we are working with Marzano Resources and the Southern Regional Education Board to develop a robust professional learning community (PLC) culture where grade levels meet and plan together. This year, the district is trying something new: early-out Wednesdays. After the students go home early every Wednesday, we have campuswide PLC. This has helped provide time for a deep dive into what we have identified as the priority standards, the resources we are using, and how to use the knowledge

we are learning from LETRS professional development. We also focus on assessing the students to ensure they have mastered the learning targets and provide small-group instruction targeting their specific needs.

Unfortunately, due to the COVID-19 pandemic, there are gaps in knowledge among our students. We are working to fill those gaps, especially for our older students who did not benefit from teachers trained in LETRS.

**PATRICIA:** Cheryl, our administrator, goes above and beyond making herself available for all of us, even when her plate is full. Mrs. Coyle sees the potential in each of us and helps find and support ways for us to expand our talents. She allows us to have a voice—she seeks our opinions. Her open door is really open (and I'm not just saying that because she's sitting here).

**LEE ANNA:** Cheryl's approach has helped with teacher buy-in. She has given everyone the time to learn about the program and how to align the assessments with our instruction. She values everyone's professional opinions. We all have the same goal at our school: to impact student achievement and to build our capacity as educators. Our hope is that we build fluent readers through our focus on foundational skills, language, comprehension, and content. Her support has helped us launch a schoolwide structured literacy program. We are really going to see significant growth in our data. We feel good about where we are, and we are very hopeful for what's to come. □

# Rethinking STEM in the Elementary Grades

## Honoring the Special Role of Math in Cognitive Development

By Douglas H. Clements and Julie Sarama

There is a growing interest in STEM (science, technology, engineering, and mathematics) units and projects in the early childhood and elementary years.[1] As former teachers turned researchers, we welcome this nascent movement, but because of our experience we suggest reflection and caution—particularly regarding the role of math in STEM education. There are many advantages of embedding math in STEM contexts and activities; it can be excellent for reinforcing math (as well as science, technology, and engineering) concepts and skills. However, there may be unintended problems. Especially if the core attributes of the disciplines are not respected, students can become overloaded with the number of new STEM concepts, and essential domain-specific content may be missed. We provide an alternative interdisciplinary approach that maintains the positive aspects of STEM through careful integration while minimizing the possible negatives by focusing on the content that students most need to master. Math is at the top of that list.

## The Role of Mathematics

Arguably, math plays a central role in the sciences. Throughout the world, almost every STEM advance (from more efficient solar energy to telescopes that probe deeper into the universe) is expressed in the language of math. And throughout schooling, mathematical development is central not only to STEM but also to overall school success. For example, the more math courses students take in high school, the higher their performance in college math, biology, chemistry, and physics courses. In fact, taking more high school *math* courses increases achievement in the sciences as much as, or even more than, taking more science courses![2]

Perhaps more surprisingly, high-quality math learning may contribute to students' development of reading,[3] language,[4] social competencies,[5] and executive function.[6] It's also the best predictor of graduating high school.[7] High-quality math experiences always encourage students to answer questions such as "How do you know?," What is your strategy?," and "Can you prove that?" Students have to dig deeply, metacognitively (thinking about their own thinking), to answer such questions, building both language and executive function competencies. Even everyday word problems help develop language and executive function. Reading, "There are six birds in a tree. Three birds already flew away. How many birds were there from the start?," students have to inhibit the immediate desire to subtract engendered by the phrase "flew away" and instead figure out the sum six plus three.[8] This need to inhibit the first impulse to answer and carefully examine the problem might be a key reason why math contributes so much to later achievement in all subjects, including science. Such inhibition is an essential part of well-developed executive function, and executive function is the best predictor of later science achievement.[9] Given that math is important in itself *and* appears to support learning across so many other domains (including general thinking skills), we conclude that *math is a core component of cognition*.[10]

This is not to say educators should focus more on math; indeed, the STE of STEM deserve more time in school. The answer to that may lie in recognizing that literacy/reading is often the "curriculum bully"[11] and time is better spent developing reading and writing in the service of STEM investigations.[12] What we *are* saying is that time on math may increase but more important is that the *quality* of math teaching and learning increase.

## Establishing Truth: STE vs. M

Along with its unique contribution to learning across domains, math differs from science, technology, and engineering in how it establishes "truth." Validity in math comes from logic, reasoning, and proof—it is *within the structure and content of mathematics* and thus develops and processes within one's mind. Validity in STE comes from the scientific testing of ideas and theories in the world and a social consensus about the results. Preschoolers implicitly learn these knowledge foundations when given the opportunity. For example, about 15 years ago, we were in the first preschool classrooms to pilot our learning trajectories approach to teaching and learning math,[13] in which we determined how to sequence math topics to be in step with how most children

develop their mathematical understandings. In a geometry activity, one four-year-old said to another, "You don't have to ask the teacher. Triangles have three sides connected. This one is really skinny, but it's *got* that. It has to be a triangle!"[14] In the same classroom, the teacher recorded a long discussion of an engineering project, ending with, "We don't know if this design is the best. We need to test it." This is a fundamental difference: justifying a math idea comes from reasoning and proof in one's mind, whereas justifying a science or engineering idea requires supporting empirical evidence.

This fundamental difference between STE and M has implications for instruction. Some attention to math *qua* math, emphasizing *argumentation* as the way to determine the truth of ideas, is needed. And attention to science, technology, and engineering is needed for students to learn about empirical truths.

By now, our concerns about STEM should be starting to emerge. We want to be sure that nothing interferes with students learning math or with them understanding the fundamental differences between math and the sciences. Do STEM units and projects interfere? Not necessarily, but they can—especially given limited instructional time and all the competing needs that elementary teachers must meet.

### STE+M

To better understand our concerns, particularly of math getting lost in STEM projects, let's look at a few examples—starting with STE and adding M. Science, technology, and engineering are a tight domain group, especially since technology and engineering put science to work, ideally for the good of humanity and the planet. And engaging students in STE projects can be an excellent way for them to learn about each discipline while also learning core content. For example, in fifth grade, students might engage with a unit developed by Youth Engineering Solutions* called Engineering Plastic Filters.[15] This unit highlights how plastic pollution can affect organisms in marine ecosystems. It challenges students to design a filter to reduce the amount of plastics entering the ocean. The unit integrates life science, earth science, and engineering performance expectations and focuses on environmental engineering. Comics introduce the problem as well as the scientific ideas that students will explore during the lesson. For instance, in one comic, characters ask how a fish could get sick from a water bottle. They call a scientist, who explains that plastic breaks down over decades into teeny pieces, called microplastics, that fish ingest. Following a model of engineering design, students pose questions, then turn to imagine, plan, create, and test filter solutions that might clean water coming from a stream before it hits the bay. They test their creations and think about ways to improve them.[16]

Inching closer to STEM, students also benefit from data analytic strategies as they collect and analyze evidence in engineering and science projects. As an example, elementary students were observing the hatching and growth of hundreds of silkworm larvae.[17] They closely observed and identified the larvae's related structures *and* their related functions, such as of their mouthparts. The teacher guided students to collect data, including the larvae's length over days, and asked small groups to invent data *displays* that would help the class understand their growth. One group created a chart that illustrated the clumps and holes in this data set. This generated a science question: Why were there so few larvae at each end, especially at the end with the longest larvae, and why were there a lot of holes in that section? Children *conjectured* that this might be due to the timing of the hatching. They remembered that although most of the larvae emerged around the same time, a small number hatched early. These larvae might have gotten a good head start and thus more of the food. The students used the *shape of the data* to investigate the scientific properties of the silkworm larvae.[18]

Moving to full-fledged STEM, computational thinking practices such as looping, conditionals, and debugging can be used to explore science, engineering, and math concepts.[19] Writing code to direct a robot through a maze involves sequencing, looping and conditionals (e.g., "keep going straight until you touch a wall, then turn"), and debugging ("change this left turn to a right turn").[20]

Although all the above are great STE/STEM projects, one thing is missing: opportunities to *learn* math as opposed to *apply* math. And even though these projects include opportunities to learn science, there is the risk that the sequencing of content and skills may not be coherent enough to maximize children's learning. So we value connected STEM learning experiences and believe that practicing and applying math show its usefulness—valuable goals. In addition, however, each domain includes concepts and practices that need to be developed deeply and systematically.[21]

### The Challenges of STEM Integration

Some early childhood scholars and educators claim that elementary-grades curricula and pedagogical approaches should *fully integrate* all aspects of STEM and other domains. They believe every planned or emergent experience should include all valued domains: all four STEM domains, and others such as language, literacy, and art. Not only will interconnections be built, they claim, but teaching multiple domains simultaneously will be efficient.[22]

Even if we did not have concerns about the deep learning that is needed in each discipline, the history (including evaluations) of completely integrated educational efforts raises concerns about their exclusive use. For example, reviews of research in preschool

and later grades reveal that there is little evidence that fully integrated curricula are superior to traditional structures and that there are challenges in implementing such curricula.[23]

Why *might* this be so? One possibility is that fully integrated activities place excessive demands on students' (and our own—so many topics!) limited cognitive processes.[24] That is, introducing multiple new concepts and principles simultaneously increases the probability that students will struggle or fail to learn them.[25]

Another possibility is that some aspect of the content may not be challenging enough—amounting to an opportunity to practice something already known, but not to learn something new. We saw this in USMES,[26] an acronym for Unified Science and Mathematics for Elementary Schools (informally renamed Unified Science and Mathematics and English for Schools due to the large amount of language and literacy included). Several professors and graduate students at the University of Buffalo worked collaboratively with local fifth-grade classrooms on implementing USMES units. Integration was strong; however, math was usually limited to adding and subtracting whole numbers. Application

port children's understanding and learning.[29] Also, math has an anxiety problem; without developing competence and a productive disposition in math in the early grades, students are unlikely to enter STEM fields.

We agree with Gina Picha, an elementary instructional coach in a Texas public school district, who wrote that "Educators can successfully integrate math with other core subjects, but I wonder why we are focused almost entirely on integration. Integrating mathematics isn't an easy thing to do well. Often times it is math that is put in the passenger seat to lightly serve another subject, project, or task."[30] Again, integration of math in STEM projects is valuable and a valuable contribution to children's confidence and enjoyment of math. However, children also need targeted, high-quality experiences that focus on the cutting edge of their mathematics development.

## Creating Our Interdisciplinary Approach

These concerns and our belief that each domain requires unique teaching and learning strategies led us to create an *interdisciplinary approach*.[31] Here, rich connections are made between domains, but



# Mathematical development is central not only to STEM but also to **overall school success**.

of math arguably has value: students see the *need* for the subject. However, these experiences taught them nothing new in math. With USMES, the needs of the projects took precedence over the needs of the subject. Students should have been learning topics such as fractions, ratios, and proportions; advanced measurement; and geometry instead of practicing basic arithmetic.

Here's an early childhood example. Planting seeds in spring is good for learning science in pre-K or kindergarten, but counting the few seeds that germinated for each student is a superficial connection[27] that will likely not serve students' needs in math.[28] Counting or better extensions into arithmetic ("How many germinated for the class?") or data ("What was 'usual' for our class?") may be useful practice but are not likely to be at the "cutting edge" of children's math development.

Based on our experience and research, integration can be beneficial but should be planned carefully. A distinct focus on the nature of math is essential, mainly because more than STE, math content and practices may need more explication to sup-

each retains its core conceptual, procedural, and epistemological structures. That is, two or more domains are always—and *only*—integrated when that combination is both consistent and complementary with those structures for *each* domain.

The ideal situation is when the STEM project requires and supports math learning that is meaningful to the children's development. Through such projects, students gain exposure to math skills in an appropriate sequence, and scientific inquiry promotes a deep understanding of concepts and processes. For example, STEM projects may require collecting and representing data at just the right level for students' development of these competencies.

In less-than-ideal situations, sometimes adjustments can be made. For example, suppose the project only uses math the children already know. In that case, teachers can emphasize the usefulness of math *and* teach other math topics outside the project. On the other hand, if a problem or context calls for

mathematical concepts or tools that are not yet accessible to students, it may not be the most productive context to explore (or to develop) mathematical understandings and practices within. Another issue to consider is what approach will be most supportive of students' learning. Often, a big disciplinary idea is better introduced alone before it is integrated with another concept or principle within or across disciplines.[32] Instead of jumping right into a STEM activity, teachers might repeatedly foreground the desired math content, temporarily backgrounding other STEM content, and then bring them together. Thus, when connections

through and how each topic can be sequenced to support another.[35] We call these sequences *learning trajectories*,* and we used them as the basis for C4L, adding on fruitful connections to science. Led by co-author of science Kimberly Brenneman (a program officer for early mathematics at the Heising-Simons Foundation), we found that the science investigations could often be sequenced to maximize opportunities for integration, allowing these units to influence the placement and order of the relatively independent (e.g., geometry vs. number) math learning trajectories.[36]

> We integrate STEM domains **if and only if** such integration serves children's development.

*are* drawn between math and science, they are genuine and detailed, with their impact undiluted by less fruitful attempts at integration.

To illustrate the potential of this approach, consider an interdisciplinary curriculum for science/engineering, math, literacy, and social-emotional learning called Connect4Learning (C4L) that we have developed along with several other colleagues.[33] The "4" in C4L refers to the four domains we emphasize and to the fact that most children in pre-K, our target setting, are four years old. And, of course, we use the homophone ("four"/"for") to emphasize that we connect the domains *for* learning. That is, we support teachers and children to make connections within and among the domains to support the learning and development of the whole child. We believe it is possible to provide high-quality learning experiences for young children across *all* critical domains—not only in the language and literacy and social-emotional domains—and that the fundamental academic domains of STEM provide rich content on which to build these learning experiences. We integrate them whenever it is advantageous to *each of the domains*, but we do not force integration. We integrate them *if and only if* such integration represents a happy alignment in which the cognitive activity serves children's development in two or more core domains.

One strategy begins with math, for which we have derived research-based developmental sequences of core concepts and core process skills.[34] Through extensive work with young children in real classrooms, we have determined the levels, or patterns, of mathematical thinking and learning most children progress

The other domains were similarly designed. For example, think-pair-share and collaborative investigations, which promote positive social interactions and executive functions, teach content from other domains. Specific teaching of social and emotional ideas and competencies was designed by co-author Mary Louise Hemmeter (a professor of special education at Vanderbilt University). Literacy competencies were structured into all STEM activities, informed by the broader language and literacy learning trajectories created by co-author Nell Duke (executive director of Stand for Children's Center for Early Literacy Success).

Inappropriate integration was avoided. Let's return to the example of teaching the garden unit in the spring. We agreed that counting the number of seeds each child germinated did not fit our mathematical learning trajectories. The science topic determined the sequence, and therefore we included activities requiring arithmetic operations and geometric shape composition. For example, students make a collage of flowers by composing shapes to make compound geometric figures (consistent with development verified in research).[37] Further, this new math topic is first foregrounded in activities focusing on shapes, their attributes, and how they can be composed.

As another example from a recent project, this one emphasizing structure and function, a class engineered a toy: a ball-and-scoop throw and catch game.[38] To emphasize the STEM ideas,

---

*Our learning trajectories, along with a wide array of related resources, are available for free at LearningTrajectories.org.

the teacher had a puppet tell the students that he was stuck; his ball wouldn't go into the milk jug scoop. The students told him the hole was too small for the ball. They suggested solutions, including cutting off the whole bottom of the jug or widening the hole at the top of the jug. They used mathematical reasoning (comparing the sizes of a hole and the ball that's supposed to go in it) to determine what is possible physically (science) as they worked iteratively to improve the design of the toy (engineering and technology). They also developed collaboration and language competences as well as literacy skills as they and the teacher cooperatively wrote their own how-to text with the materials and steps required in case another class wants to reproduce the game (literacy).[39]

Another example[†] involved building ramps.[40] Investigating the science concepts of force and motion, students soon wished to engineer the ramps to maximize their effect: sending an assortment of objects (including balls, toy cars, and plastic dinosaurs) down the ramp and across the floor as quickly and as far as possible. What level of the length measurement learning trajectory had students attained, and thus, what would be the *next* level that would maximize their learning?

Our learning trajectory for measuring length has 12 levels, ranging from Length Senser: Foundations, in which babies as young as six months make simple, intuitive comparisons of length, to Abstract Length Measurer, in which students in grades 4 to 6 meaningfully measure length, compute with lengths in various contexts, and grasp derived units such as miles per hour. Among preschoolers, the most relevant levels are two through six. Level two is the Length Quantity Recognizer, in which children learn what length is (often age 3), and level three is the Length Direct Comparer, in which they physically align two objects to compare lengths. In level six, the End-to-End Length Measurer, students learn to place multiple "units" (e.g., blocks or inch cubes) along the object to be measured and count these individual units to report the length. Children at this level often insist that the linear space *must* be filled by the units (although they may initially leave small gaps between them), but they do not insist that the units must be equal in size! Their goal is simply to fill the space and count to determine the length.

In one classroom, teachers determined that most students could compare lengths directly and were ready to learn End-to-End-level ideas and skills.[41] Therefore, the teachers ensured that students' ramps were oriented differently, prompting them to measure to compare the factors. Teachers also provided enough physical units (e.g., blocks of the same length to place on the floor) that children could develop the End-to-End Length Measurer level of thinking and acting. However, they also saw that several students were soon ready for level eight, Length Unit Relater and Repeater, so they challenged these students by providing them with only a few physical units—and of different sizes. Students collected data on the distances that balls traveled and related them to the science and engineering variables (smoothness of ramp, height of ramp, nascent concepts of slope, and so on), testing and revising their designs and their ideas.

## Conclusions and Implications

Integrating domains is a valuable way to promote both meaningful and efficient learning. However, fully integrated approaches to early and elementary education, in which all experiences are guided to include all domains, are unwise. We have described an alternative, *interdisciplinary* approach as one in which rich connections are made between domains but each discipline retains its core conceptual, procedural, and epistemological structures.

Based on our research and classroom experiences, we suggest the following guidelines.[42]

- Maintain high expectations for what children can do in each domain and across domains.
- Use research-supported practices: specific techniques inside and outside of STEM, such as providing practice with subitizing and interactive writing, can be embedded within and contribute to the unit project's purpose.
- Incorporate investigations and explorations, including in math.[43] Educational activities that emphasize exploration and design are often ripe with opportunities for integration.[44]
- Establish a real-world purpose for children's STEM projects. Activities should be realistic or focused on authentic, real-world problems parallel to problems addressed by scientists, engineers, or applied mathematicians.[45]
- Focus on the shared concepts (especially the "big ideas" of a domain), processes, and practices across the STEM domains and make them explicit.
- Consider the role of each domain in the project: it may be easier to see where science and math come in, but be sure to consider technology and engineering as well as literacy, music, and the arts.
- Take an interdisciplinary approach. Look for all possible connections between domains but avoid forcing integration. Ensure that students are learning appropriate content—challenging but achievable. When you do integrate, make the integration explicit and respect what's unique about each discipline, especially how it determines the truth. □

**For the endnotes, see aft.org/ae/spring2023/clements_sarama.**

---

[†]To learn more about this project, the STEM Innovation for Inclusion in Early Education Center, visit stemie.fpg.unc.edu, where you'll find a wide array of free resources and activities for educators and families.

# Reimagining School Safety



By Heather M. Reynolds and Ron Avi Astor

The COVID-19 pandemic and recent racial justice movements have made it very apparent that our current approaches to keeping students safe and healthy in schools need major restructuring and reform. We lack mental health supports in many schools at a time when students need them most.[1] We are punishing and removing students of color from schools at much higher rates than white students, and students with disabilities are three times more likely to receive a punitive punishment than their nondisabled peers.[2] Additionally, there are strong calls from communities across the United States to remove law enforcement from schools immediately,

with little planning or data-driven support. With the infusion of federal money into states and schools to help address student achievement losses and mental health challenges as a result of the COVID-19 pandemic, we have an opportunity for real change.[3] This is an opportunity to create sustainable systems and infrastructure that help local districts address their most pressing safety needs through districtwide data-driven strategies that show long-term, positive outcomes for the entire school community.[4]

Recent data show that 14 million students in the United States attend schools with police but no counselor, nurse, psychologist, or social worker.[5] The National Association of School Psychologists[6] recommends that the ratio of school psychologists to students be at least 1 for every 500 students. Only one state met this recommendation as of 2021, and over 20 states had a ratio of more than 1,500 students per school psychologist.[7] There is no national strategy or infrastructure to lower the ratio of students to counselors, social workers, nurses, and other helping professionals to ensure more supports are available to struggling students.[8]

In addition to diverting resources that could fund better mental health supports, punitive school security and discipline policies have a strong negative impact on students of color and students with disabilities. More specifically, suspension and expulsion rates, referrals to law enforcement, and punitive discipline rates are disproportionately and consistently higher for students of color and students with disabilities in urban, suburban, and rural communi-

*Heather M. Reynolds is a professor of teacher education in the School for Graduate Studies at SUNY Empire State College, where her research focuses on creating safe, engaging, and welcoming school and classroom environments. Ron Avi Astor is the Crump Professor in the UCLA Luskin School of Public Affairs, department of Social Welfare, with a joint appointment in the School of Education. His work focuses on the socio-ecological influences of society, family, community, school, and culture on different forms of school violence. This article is adapted from "Reimagining School Safety During and After the COVID-19 Pandemic: A Call for Policy Strategies to Address Racial and Social Justice," which Reynolds and Astor contributed to* Our Children Can't Wait: The Urgency of Reinventing Education Policy in America, *edited by Joseph P. Bishop.*

ties across the United States, beginning even before students enter kindergarten.[9] We should be asking what our schools need to be welcoming and supportive to all. And more importantly, how can policymakers help support that vision with infrastructure, training, and funding to ensure success and sustainability over time?

## Shifting the Focus to Social, Emotional, and Mental Health, and a Positive School Climate

Reenvisioning education and schools across the United States must account for the large bodies of research showing that schools with strong, caring, culturally supportive, and positive climates can not only address issues of ongoing victimization but also prevent students from being victimized.[10] Little evidence suggests that law enforcement strategies have prevented school shootings or made schools feel safer for students.[11] However, significant research has highlighted the negative impact that security, law enforcement, and punitive approaches can have on school climate, including lowering students' sense of belonging and safety and academic performance.[12] These negative outcomes disproportionately affect students of color and students with disabilities, which can lead to social isolation, disengagement, and dropping out of school.[13] Given the existing evidence, policies need to shift from "hardening" practices (such as more police and metal detectors) to strategies that foster a positive community and civil relationships in schools.[14]

This change requires a shift of funding and support from policing, punishment, and surveillance to long-term investments in holistic prevention and empowerment of schools and communities. Given wide local, regional, and state variation in populations, the most effective and appropriate interventions are driven by local school safety assessments, capacity building, integration of academic and social goals, partnerships with community organizations, consideration of the voices of all school stakeholders, and collaborations with universities.[15]

The arguments to fund security measures in schools are generally based on fear, opinion, and often, political views.[16] In most school shootings with mass casualties, schools had armed personnel either on campus at the time of the shooting or there within minutes,[17] and their presence failed to prevent the shootings or stop the shooters from using weapons on school grounds (e.g., Marjory Stoneman Douglas High School and Robb Elementary School). Similarly, most mass shootings have occurred in schools that had security cameras, security protocols, and electronic monitoring systems.[18] And finally, most shooters were students or former students who were familiar with the layout of the school rather than random strangers targeting a school.[19]

More than 20,000 school resource officers (SROs) work in schools across the country, which doesn't include the presence of armed security or "guardians" who are not active-duty law enforcement officers.[20] Federal funding (COPS in Schools and other grants) during the past several decades has encouraged schools to hire active-duty law enforcement to work full time in schools. Research on the effectiveness of SROs is mixed, and no definitive data have indicated that the presence of an SRO deters or lowers casualties in a mass school shooting.[21]

However, evidence suggests that punitive disciplinary policies and the presence of a law enforcement officer in schools can affect the numbers of students being arrested, with devastating effects on students of color and students with disabilities.[22]

Although Black students represent 15 percent of student enrollment, they represent 29 percent of students referred to law enforcement and 32 percent of students subjected to school-related arrest.[23] Regarding students with disabilities, the rate of school arrests is three times that of students without disabilities, and it increases exponentially when police are present on campus.[24]

Despite federal and state funding and incentives, most states have very limited guidance and legislation related to SRO training, and as of 2018, 18 states had "no laws on SRO certification, use,



## Our Children Can't Wait

This article is adapted from chapter 11 of *Our Children Can't Wait: The Urgency of Reinventing Education Policy in America*. In this edited volume, scholars challenge inequality as something inevitable in America's schools and society, focusing on new, broader social policy responses to address persistent disparities in academic outcomes apparent by race and income. We explore the perspectives of multiple experts on interrelated policies beyond schools that profoundly affect students, such as neighborhood conditions, public health, community resources, housing, air quality, school safety, and segregation. An education policy playbook that looks both within and outside the school walls for solutions that begin to dismantle the entrenched forces of systemic racism in our country has never deserved greater attention or focus. That redemptive journey starts with making an unapologetic commitment to our young people. Our children can't wait.

–JOSEPH P. BISHOP

*Joseph P. Bishop, editor of* Our Children Can't Wait, *is the executive director and cofounder of the Center for the Transformation of Schools in UCLA's School of Education & Information Studies. His research explores the role of policy in our society, specifically its impact on historically marginalized communities in education settings.*
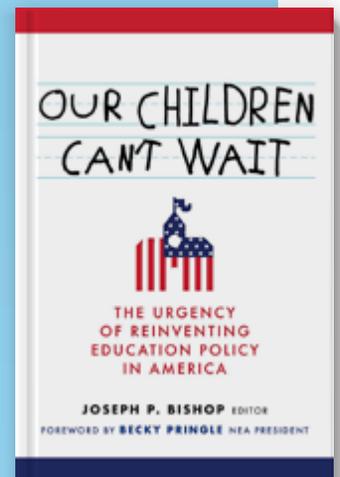
or training."[25] The National Association of School Resource Officers (NASRO), the largest training organization for school-based police in the United States, recently released a statement about the importance of "local and collaborative" decision-making that focuses on "weighing the risk of harm" with potential benefits prior to hiring law enforcement to work in schools.[26]

### Creating a Positive, Supportive, and Welcoming School Climate

A large body of research has demonstrated the positive impact of whole-school and whole-child prevention approaches that focus on developing and maintaining a welcoming and supportive climate and minimizing the removal of students from school.[27] A positive school climate is characterized by respectful student, teacher, and staff relationships; teacher and peer support; clear, fair, and consistent rules and disciplinary policies; support for diversity and inclusion; effective school-home communication; and student engagement and a sense of belongingness in school and school activities.[28] Sharing some of the same core principles, social and emotional learning refers to supports and processes that help "children and adults understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions."[29]

School safety researchers know that there are promising, data-driven findings indicating that programs that focus on schoolwide or districtwide efforts to improve school climate and promote social and emotional learning can lower levels of victimization in school and increase feelings of safety for all students.[30] Strong evidence suggests that efforts to improve school climate or promote social and emotional learning are most impactful when they are schoolwide or districtwide and involve all stakeholders. When these programs are implemented with consistency across a district, all students experience significant improvements in academic and victimization outcomes, along with a reduction in discrepancies in academic achievement and discipline among students of color, students with lower socioeconomic status, and students with disabilities.[31]

Restorative justice techniques and comprehensive threat-assessment teams are a promising alternative to punitive, zero-tolerance policies when these programs are part of the comprehensive safety plan for a school or district.[32] Restorative justice practices focus on improving the overall culture and climate of the school through engaging in conflict resolution and problem solving; developing and nurturing positive relationships in the school environment; reinforcing positive communication strategies; encouraging all students to be actively involved in their school; and promoting, teaching, and reinforcing respect for one another.[33] Restorative practices, when clearly structured and used

> Policies need to shift from "hardening" practices to strategies that foster a positive community and civil relationships in schools.

schoolwide, can effectively disrupt discrepancies in exclusionary punishment practices based on racial and disability status.[34]

Another effective alternative to zero-tolerance policies is comprehensive threat assessment.[35] Teams of trained school professionals use a step-by-step procedure to gather information and assess threats as either transient (not serious or intentional) or substantive (clear intent to carry out the threat). Appropriate interventions and supports are then instituted based on the needs of the student who made the threat and the safety needs of other students.[36] When threat assessment is implemented on a districtwide basis, multiple studies[37] have shown lower suspension rates across all racial and ethnic groups, a more positive school climate, fewer instances of bullying and violence, and increases in teachers feeling safe; one study found a 79 percent decrease in bullying.[38]

Many schools have started to include positive social and emotional learning and climate measures but have not removed preexisting punitive approaches. The simultaneous use of punitive and positive approaches to safety in the same school or district can lead to confusion about student discipline and send inconsistent messages to students about behaviors and consequences. Rather than funding competing programs or policies with conflicting messages, there is a need to develop a unified whole-school approach to safety.[39] It is critical that school board members, superintendents, administrators, and teachers have access to research and training, both at the pre-service level and through professional development, on the devastating impact exclusionary and punitive disciplinary practices can have on certain groups of students.[40] Adding social and emotional learning or a program focused on improving climate to a school or district while still utilizing policing or punitive discipline does not make sense, is confusing, and is not data driven. Yet many districts opt for both approaches as a form of political compromise without consideration of the mixed message this creates for the entire school community.

### Key Components of an "Optimal" Vision of School Safety

The National Association of School Psychologists,[41] in collaboration with NASRO and several other professional organizations, introduced recommendations that would allow districts to create and maintain comprehensive, research-based school safety policies. These recommendations include flexible and sustainable

funding streams that allow schools to address their most pressing safety needs by promoting school-community partnerships, multi-tiered support systems, inter- and intra-agency collaborations, and the use of evidence-based standards.[42] Partnerships, assessment, and sustainability are critical to the success of any school safety program.

From a policy standpoint, funding, flexibility, incentives, and infrastructure to promote collaborations between universities and local decision-makers would make it more viable for districts to use data from a wide range of stakeholders to address their most pressing school safety needs. These partnerships should be integrated into the curricula of teacher-, social worker-, school psychologist-, principal-, and superintendent-preparation programs in universities. Such partnerships would set up a system for key school personnel to develop an understanding of how to create welcoming, safe, and supportive schools through procedures and structures for collecting and using local data and constituent voices to drive safety policies and procedures in every school. Creating and sustaining infrastructure in preparation programs to encourage local data-driven decisions also would create an opportunity to address issues of school safety in terms of race, gender, disability status, policing and social justice, and punitive safety policies in an academic setting. In addition, this would help university-based preparation programs build capacity to help school professionals understand data-driven, welcoming, and growth-oriented school safety policies and practices.[43] And local decision-makers need to be able to advocate for and have resources and funding available to support a whole-school approach to safety, which is more likely to have an impact and be sustained over time.[44]

A vast literature indicates what works and what doesn't work in the field of school safety. Drawing from evidence-based programs and policies that have a positive impact on perceptions of safety in schools[45] will help policymakers focus on the best ways to address their community's unique school and community safety needs.[46] Federal policies and funding that encourage schools to examine strategies for removing zero-tolerance, policing, and punitive policies are vital for a seismic shift to occur in how we approach school safety. It is critical that local stakeholders and decision-makers have the support of university collaborators to collect and analyze their own data and make evidence-based decisions that are appropriate for their district. Decades of research show that any "hardening" of security efforts needs to consider the potential impact on the climate of schools and the disproportionate impact punitive discipline can have on students of color and students with disabilities in terms of academic success and feelings of connection to school.[47]

Federal and state policymakers need to direct legislation and funding away from school policing to more holistic, supportive, and nonpunitive practices. There are some promising signs, including the Every Student Succeeds Act allowing some flexibility for states to examine school climate and social-emotional variables to help meet the reporting requirements for school quality or student success.[48] Although not required, departments of education at the state level can choose to look at school climate and/or social and emotional learning through support from the National Center on Safe Supportive Learning Environments and/or apply for federal grant opportunities such as the School Climate Transformation Grant.[49] This is a promising step, but the funding for these initiatives is still miniscule when compared to the funding allocated to school-based policing. Incentivizing or requiring all states to evaluate school climate through providing infrastructure and financial support for collaborations between districts and researchers would likely increase the number of districts that include these variables in academic and safety-related discussions.

Years of research show us the value and effectiveness of inclusive and comprehensive safety programs and policies, prevention and investment in data-driven practices, and the creation of welcoming and supportive schools and districts.[50] Empowering districts to invest in long-term, research-based solutions can begin with national calls to examine punitive disciplinary policies in every district and to consider holistic and empowering models for safety. There are so much data to spark this conversation (e.g., Civil Rights Data Collection, Welcoming Empowerment Monitoring Approach). We now need structures and incentives for bringing decision-makers and researchers together over time for meaningful and goal-oriented interactions. Encouraging discussion and partnerships in the area of school safety is a key component of creating and sustaining holistic, evidence-based, financially viable, relevant, and data-driven school safety solutions that work for all. □

**For the endnotes, see aft.org/ae/spring2023/reynolds_astor.**

> Restorative justice practices can disrupt discrepancies in exclusionary punishment practices based on racial and disability status.

# Incentivizing Equity

## A New Way to Distribute Federal Aid and Spur Adequate Funding for All



By Bruce D. Baker, Matthew Di Carlo, and Mark Weber

**C**urrent federal aid allocation policies do an admirable job of targeting aid to school districts serving the neediest students. This is not only because they distribute funds through states to local public school districts based largely on proxies for needs and costs such as Census poverty rates (which are fairly effective predictors of K–12 costs) but also because higher-poverty districts are more likely than their affluent counterparts to be underfunded. But these policies have one significant, underlying weakness: they fail to consider states' effort levels (and their capacities to raise revenue).

This "effort neutral" approach fails to target crucial aid at states with smaller economies and higher costs. These states, despite strong effort levels, cannot possibly meet students' needs. Conversely, it effectively rewards states that fail to provide adequate funding for all students despite having the capacity to do so.

*Bruce D. Baker is a professor in and the chair of the Department of Teaching and Learning at the University of Miami and the author of* Educational Inequality and School Finance: Why Money Matters for America's Students. *Matthew Di Carlo is a senior fellow at the Albert Shanker Institute and the author of numerous reports on school funding and equity. Mark Weber is the special analyst for education policy at New Jersey Policy Perspective and a lecturer in education policy at Rutgers University. He is also a music teacher in Warren Township, N.J. This article was adapted from* Ensuring Adequate Education Funding for All: A New Federal Foundation Aid Formula *with permission from the Albert Shanker Institute.*

Our proposal, put simply, is for federal aid to be allocated based not only on student need (as is currently the case), but also on how much states and districts are able and willing to contribute—in other words, based on their effort. With full funding and compliance, this proposal would provide every school district with the estimated revenues necessary to reach the goal of average national outcomes in mathematics and reading.

Some form of this "foundation funding" system is how state and local K–12 funds are distributed in almost all states, at least in theory. States determine how much each district requires to meet the needs of its students—i.e., a "foundation" funding amount. Districts are then expected to contribute a reasonable amount of local revenue toward these costs, given their capacity to raise those funds (e.g., at the same tax rate, a wealthy suburban district will raise far more revenue than a low-income city district). Finally, state aid makes up the difference between this local fair share contribution and the minimum foundation funding level. Our proposal integrates the federal government as the top layer in a national foundation formula, in which the federal government fills the gaps that state and local governments cannot reasonably fill themselves.

In order to understand the conceptual basis for this proposal, it is useful to begin with a brief discussion of, first, how school finance systems should work and, second, how they actually do work.

## Current School Finance Systems

On average, about 90 percent of school funding comes from a combination of local and state revenues. Local revenues, mostly from property taxes, are collected and distributed at the school district

level, with states exerting substantial control over local revenue by defining the bounded geographic spaces of local districts, determining how properties are valued and taxed, and deciding how those taxes are incorporated into the broader school finance system. State revenues, usually derived mostly from sales and income taxes, are "pooled" and distributed to districts via a statewide funding formula. The details of these formulas vary substantially from state to state, but they are designed, in theory, to accomplish two goals:

1. *Account for differences in the costs of achieving equal educational opportunity across schools, districts, and the children they serve.* Costs vary because student populations vary (e.g., some districts serve larger shares of disadvantaged students than others) and characteristics of school districts vary (e.g., some districts are located in labor markets with higher costs of living than others). School funding formulas attempt to account for these differences by driving additional funding to districts with higher costs.

2. *Account for differences in fiscal capacity, or the ability of local public school districts to pay for the costs of educating their students.* In many states, school districts rely heavily on local property taxes to raise revenues. This advantages wealthier communities: because their property values are higher, they can tax themselves at lower rates. State funding formulas attempt to account for this difference by driving more funding to districts with less capacity to raise local revenues and meet their students' needs.

These two factors—local costs and local capacity—are strongly (but not perfectly) associated with each other. This creates a compounded issue of sorts, in which districts with the highest costs also tend to be those with the least capacity to raise revenue to pay those costs.

A well-designed state school finance system, therefore, begins by setting a need-/cost-adjusted target level of funding for each local public school district to achieve the desired outcome. Then, the goal is to determine the "local fair share" or "required local effort" to be paid by local communities toward the cost target. This contribution is usually determined with respect to the taxable property wealth of the communities and the income of taxpaying residents. For districts that do not meet their per-pupil cost targets with local revenue alone, state aid is allocated to make up the difference (most districts fall in this category, albeit by degrees that vary widely).

In states that fail to account for these discrepancies with state aid, there are often massive gaps between resources and needs in high-poverty districts. Such failures carry serious consequences for US schoolchildren because money does, indeed, matter.* This conclusion is supported by a growing body of high-quality empirical research regarding the importance of equitable and adequate financing for providing high-quality schooling to all children.[1]

Sadly, most state school finance systems fall far short of even a realistic approximation of the ideal system and funding gaps (discrepancies between resources and costs/needs) persist. Such gaps are most egregious between local public school districts within the same state—but they are also found between states and even between schools within the same district.[2]

There are two primary reasons for this failure. The first and often the most basic problem is that most states do not set their district funding targets based on any empirically defensible system. Some states' targets are products of poorly designed costing studies or no cost analyses at all. Other states rely on consultants who use "evidence-based" methods in which the "evidence" is better described as personal opinion and who are subject to political pressures to understate additional costs associated with student needs. In any case, the failure to set proper target funding levels can serve to justify inequitable funding and relieve pressure to increase revenue or reform how it is distributed.

The second primary reason that state finance systems work less well in practice than in theory is the failure of some states to raise enough revenue to support their schools. Sometimes this failure is due to limited capacity; in other cases, it is essentially a policy choice (e.g., choosing to keep tax rates very low or to cut taxes despite inadequate funding).

We have found that there is no relationship between states' capacity to fund their schools and their effort. New York



Over half of all US districts are funded below our estimated adequate levels.

This new report from the Albert Shanker Institute offers a reasonable, doable framework for adequately funding all districts in the United States. In short, all states and localities would have to pay their fair share (many already are), and the federal government would target new aid to the neediest districts. This article, which is drawn from the report, explains the framework, outlines a proof-of-concept simulation, and offers key national results. The report provides far more details on the framework and state-by-state results. In addition, there's an online data visualization tool to cost out different versions of the framework.  —EDITORS

**shankerinstitute.org/fedformula**



*In part for these reasons, many state courts have reaffirmed that their constitutions mandate statewide school funding systems that take these factors into account. That is, they require states to make up the gaps between districts' needs/costs and their ability to pay those costs with local revenue.

and New Jersey, for instance, are high-capacity states that also put forth above-average effort, generating copious K–12 resources statewide. But there are also a number of states, such as Delaware, Massachusetts, and California, that are high capacity and put forth relatively low effort. In contrast, several states, such as Arkansas, Kentucky, Maine, Mississippi, South Carolina, and West Virginia, exhibit rather strong (or at least above average) effort, but their relatively limited capacity (i.e., smaller economies) means that students in those states will be under-resourced vis-à-vis states that put forth similar effort but have greater capacity.

To the extent that states leave it to local communities to raise what they will for local public schools, differences in income and policy choices across local districts will lead to differences in spending, quality, and outcomes. And to the extent the federal government provides a limited share (roughly 10 percent) of all K–12 aid and continues to distribute that limited share without regard to states' effort and capacity, these differences will continue to drive interstate inequality.

## A New Framework for Federal Funding

We propose a new federal aid framework that functions similarly to how state finance systems are supposed to work—that is, by distributing federal aid based on both costs/needs as well as states' and districts' ability and willingness to pay their fair shares of bringing all districts up to a minimum adequate level. As a proof of concept, in our report we provide extensive calculations and analysis to simulate one reasonable manifestation of that framework: a voluntary supplemental federal aid program in which eligibility is contingent upon fair share state and local contributions (i.e., minimum effort), and new federal funds fill the gaps between that contribution and adequate funding levels in eligible states. While we encourage readers to read the full report, here we offer a summary of this simulation showing that what's needed to ensure adequate funding for all districts is reasonable and doable.*

We began our simulation by estimating adequate per-pupil funding levels for the vast majority of public school districts in the United States. These estimates come from the National Education Cost Model, which uses a national database of school district finance data, data on student and district characteristics, and nationally normed testing data. The model determines how student population characteristics (percentage in poverty, percentage of English language learners, percentage of students with disabilities, etc.) and district characteristics (relative wage costs, enrollment size, grade-level enrollments, etc.) affect student outcomes and how much funding is needed to reach a specified outcome goal



**Bringing effort and capacity into the federal aid equation ensures funding goes where it is needed.**

given these variations. The goal we have chosen is relatively modest: national average outcomes in reading and math.

Today, over half of all US districts are funded below our estimated adequate levels. In many states, most students attend districts with below-adequate funding. But even in those (relatively few) states where most districts' resources are above our adequacy targets, there are still many that fall through the cracks, and these school districts tend to have the highest costs and least capacity to pay those costs via local revenue. Our simulation calculates the cost of bringing all of these inadequately funded districts up to their target levels. However, *eligibility* for these additional gap-closing federal funds is contingent upon states and districts contributing a reasonable fair share (if they don't already do so). We define this fair share contribution in terms of fiscal effort, which is simply total state and local revenue divided by capacity.† And we set this minimum effort level at roughly the US average. This fair share requirement ensures that neither the federal government nor states with smaller economies (and/or very high costs) are required to bear a disproportionately large burden in meeting the needs of their student populations, particularly when localities aren't contributing enough themselves.

The final step in our simulation was allocating new local, state, and federal aid. This procedure entails several sub-steps, models, and tests (which we discuss in the report), but put simply, a combination of new state aid and new local revenue brings states up to the minimum required "fair share" effort levels (if they are not at those levels already) and then distributes the new funding to districts proportionally to their funding gaps. Any district in which this new revenue is insufficient to raise total funding up to adequate levels receives new federal aid to make up the difference. Therefore, one key feature of our proposal is that we achieve universal adequacy *without any reduction in revenue in any district* or any shifting of current funding between districts.

## Adequate Funding Is a Reachable Goal

In our proof-of-concept simulation, we assumed full participation by states (even though our proposed supplemental federal aid program is voluntary). Therefore, our national results represent maximum possible estimates of costs—as well as benefits—in the districts we were able to include (which serve approximately 95 percent of all public school students). We found that:

- **Universal adequacy would require roughly $52 billion in additional federal funding annually.** Existing (pre-pandemic) federal aid, which constitutes around 10 percent of all K–12 revenue,

---

*For technical reasons, we do not include Alaska, the District of Columbia, Hawaii, and Nevada, as well as a relatively small number of districts in various other states, in our simulation. The districts that are included serve roughly 95 percent of all US public school students.

---

†In our report, we provide two ways of determining capacity, one focused on the monetary value of states' goods and services, the other on the sum of personal income for a state's resident population.

# In Most Districts, Funding Is Below Adequate

In the figure on the right, we compare actual and adequate spending by district poverty level for almost all states. There are only 11 states in which average spending is above adequate levels in the highest-poverty districts. In the typical state, spending is below estimated adequacy targets in its highest-poverty districts, approximately adequate in its medium-poverty districts, and above adequate in its most affluent districts. Still, there is quite a bit of variation between states. Some, such as Connecticut, New Jersey, and Wyoming, provide rather robust funding overall; however, it is still poorly calibrated with costs, resulting in massive opportunity gaps between higher- and lower-poverty districts.
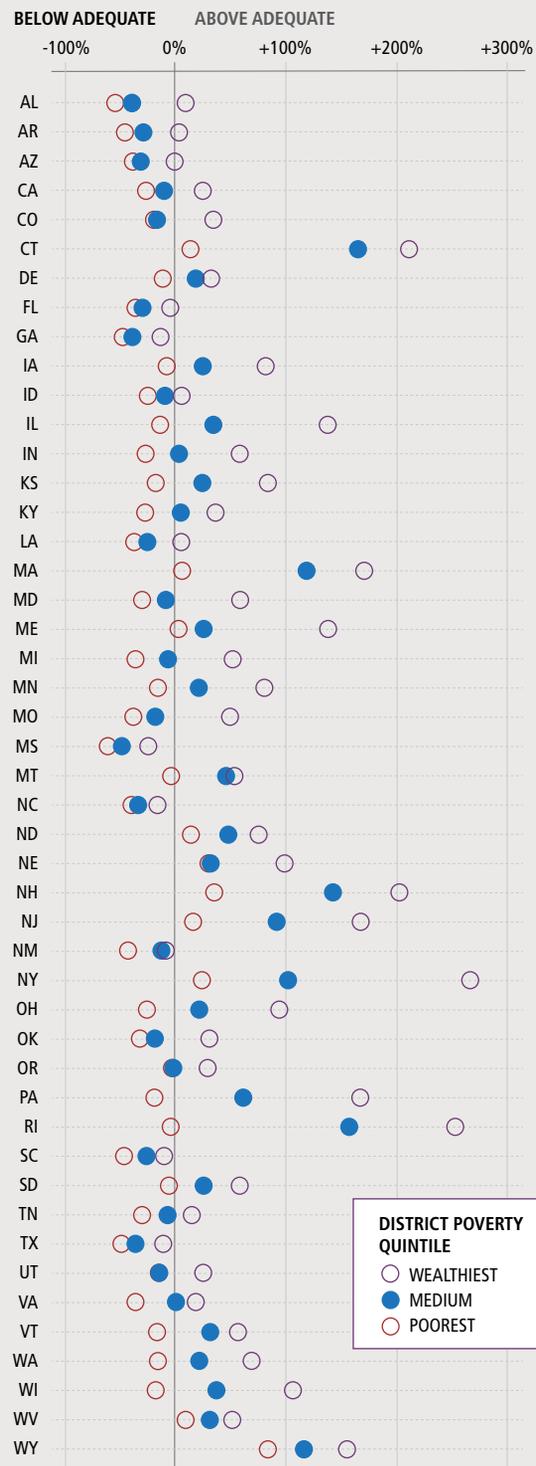
—B. D. B., M. D. C., and M. W.

## Funding adequacy by district Census poverty quintile and state, 2019



Note: Figures are percent differences between actual spending and spending levels required to achieve national average test scores. Plot does not include states (AK, DC, HI, NV) excluded from the analysis reported here.

SOURCE: SCHOOL FINANCE INDICATORS DATABASE

would roughly double in our full compliance simulation. Yet this increase in federal funds would be accompanied by an additional "fair share" state and local investment of approximately $80 billion, which is an aggregate increase of about 13 percent in total state and local revenue for fiscal year 2019.[†] These increases vary widely by state, depending on current effort levels.

- **The additional federal funds would be targeted at districts in 34 states.** These states (and districts) are those that cannot achieve adequate funding despite meeting minimum state and local effort levels. Based on their current funding levels indicating that they are already paying their fair share, 18 states are "pre-eligible"—i.e., they would not have to increase state and local revenue to be eligible for new federal funds. Conversely, our simulation suggests that roughly a dozen states are not pre-eligible for federal aid and do not need it—they have sufficient capacity to achieve universal adequacy by raising effort up to our fair share minimum levels. Several of these states, such as California, Colorado, Florida, and North Carolina, currently exhibit severe and widespread funding gaps despite having the means to rectify them.

- **Full participation in this program would cause a decrease in the percentage of students in inadequately funded districts from about 55 percent to 0 percent.** In other words, if all states increased state and local investment up to our target fair share levels, and roughly $52 billion in new federal aid filled the remaining adequacy gaps, around 26 million schoolchildren would no longer attend schools in inadequately funded districts. These beneficiaries and the districts in which they attend schools are a diverse group, as inadequate funding is a widespread problem. But a disproportionate share of our proposal's beneficiaries attend schools in higher-poverty districts, and almost 60 percent are African American and Latinx students, who make up just over 40 percent of all students in our simulation.

- **Full participation would also reduce the overall unequal opportunity gap—the average difference in adequate funding gaps between the highest- and lowest-poverty districts in each state—by over 60 percent.** On average, the 20 percent of districts in each state with the lowest poverty rates are funded

---

[†]It bears noting that this total amount of required new state and local investment is roughly equivalent to our estimates of how much total state and local funding would increase if all states returned to their average effort levels before the 2007–09 recession.[3] The failure of most states to reinvest in their schools as their economies recovered from that recession has had disastrous consequences for the funding of schools and other public services, and a large portion of the required state and local investment increases in our simulation are making up that ground that was lost and never regained.

## Percent reduction in district poverty–based and race/ethnicity-based opportunity gaps by state



Legend:
- ● WHITE/AFRICAN AMERICAN
- ○ DISTRICT POVERTY (Q1/Q5)
- ○ WHITE/LATINX

Note: Percent change in existing (2019) gaps under a simulation with no excess aid (see text). Gaps (existing and simulated) are the difference (in dollars per pupil) in adequate funding gaps between each combination of district poverty and race/ethnicity groups. Figure does not include AK, DC, HI, or NV, which are not included in the simulation.

SOURCE: SCHOOL FINANCE INDICATORS DATABASE

approximately $3,400 per pupil above estimated adequate levels. In contrast, the highest-poverty districts are funded roughly at an equal amount *below* adequate levels, for a total "unequal opportunity gap" of just over $6,700 per pupil. Our proposed framework, with all states meeting minimum effort levels and additional federal funds filling adequate funding holes, would reduce that gap to $2,638 per pupil, a decrease of about 61 percent. (For state-by-state results, see the figure to the left.) In addition, the program would reduce the national opportunity gap between African American and white students by 59 percent, while the Latinx/white gap would decline by 49 percent. In several states, such long-standing poverty- and race-/ethnicity-based funding gaps would be largely eliminated.



We emphasize that several of the important features of our proposal and proof-of-concept simulation, such as the fair share effort levels and the selection of the student outcome for adequate funding targets, are flexible. We have chosen parameters that we believe are reasonable and attainable, and in our report we have made an effort to test and present separate results for different possibilities (e.g., different definitions of capacity in our effort measure). The actual design and implementation of our framework might require changes, and we believe it is flexible enough to meet these challenges. (To see results for different scenarios, including different minimum state and local effort levels, use the online data visualization tool accompanying our report: shankerinstitute.org/fedviz.)

The framework we lay out in this report is, most basically, a proposal for a new federal aid program, though this approach could also be used to allocate existing federal aid. Its most important benefit would be the improvement in student outcomes from more adequate and equitable funding in participating states. By bringing effort and capacity into the federal aid equation, as is the case in virtually all states' systems, our framework ensures that the new federal funding goes where it is needed most.

Yet the framework is also designed with the longer-term goal of improving and harmonizing K–12 school finance at the state and local levels. While a handful of states' finance systems do a reasonably good job of providing adequate funding for all students, most do not. Insofar as roughly 90 percent of all K–12 revenue comes from state and local sources, any serious effort to improve this situation will require substantial additional investment from states and districts. The federal government cannot compel such investment directly, but it can play a crucial role in helping the students most in need, while also incentivizing new state and local investment by rewarding states that contribute a reasonable fair share of their resources to public schools. □

**For the endnotes, see aft.org/ae/spring2023/baker_dicarlo_weber.**

# Creating Safe and Welcoming Schools, Colleges, and Universities

## The AFT and AAUP Join Forces to Protect Academic Freedom and Inclusive Instruction

Last summer, the AFT and the American Association of University Professors (AAUP) joined forces through a historic affiliation. Along with committing to making colleges and universities excellent places to teach and learn, the partnership is dedicated to securing academic freedom and bolstering our democracy.

Given conservative extremists' efforts in recent years to dampen educators' professional autonomy in K–12 and higher education, we encourage all of the AFT's education members to explore the AAUP's resources: aaup.org/programs/aft-higher-ed-members. To that end, we offer a two-part excerpt from the AAUP's *Journal of Academic Freedom*. This annual journal explores academic freedom and related issues, including shared governance and collective bargaining. The current volume responds to recent attacks on teaching honest history and calls for creating classrooms that are safe and welcoming for all students. Many of the articles take on the myth that K–12 schools are teaching critical race theory (CRT, which is a subject taught primarily in law schools), and they expose the reality that previously uncontroversial lessons on historical facts like enslavement, Jim Crow, and segregation are being censored in far too many communities across America.

In the first part of this excerpt, we share edited portions of the editors' introduction, in which they show the dangers of censored history lessons and discuss the importance of academic freedom. Their explanation of the difference between free speech and academic freedom is particularly important for all educators. In the second part of this excerpt, we shift to another crucial form of censorship, sharing selections from an article on attempts to ban books and curricula that support LGBTQIA+ people. While the complete article explores the history of instructional policy on LGBTQIA+ issues and offers more details on today's political context, our edited selections focus on how to support teachers in creating inclusive classrooms.

We hope these excerpts spark your curiosity. Like *American Educator*, the *Journal of Academic Freedom* is available for free online. To keep reading, visit aaup.org/reportspubs/journal-academic-freedom/volume-13.

–EDITORS

ILLUSTRATIONS BY SONIA PULIDO

# Memory Laws or Gag Laws? Disinformation Meets Academic Freedom

From the *Journal of Academic Freedom* Editors' Introduction*

By Michael C. Dreiling and Pedro García-Caro



The new volume of the *Journal of Academic Freedom* engages with recent political challenges to academic freedom, which have mobilized the antidemocratic notion that academic knowledge—whether in the United States or elsewhere—can be scripted by outside agencies such as a legislative body, a board of trustees, a ministry, or a governmental commission. The resulting laws openly vilify "histories that call attention to the historical realities of genocide, slavery, oppression, and dispossession," and their advocates have deployed "many disinformation tactics, including the production and dissemination of a counterfeit version of critical race theory (CRT)."[1] We explicitly sought to investigate the impact that this exaggerated form of prescriptive historiography is having on K–12 schools and college and university campuses. The contributors to this volume have offered a chilling panorama of the ongoing struggle between legitimate scholarship and nostalgic propaganda—between informed discourse seeking to enlighten and expand knowledge about past and present and dogmatic censorship.

The open season on CRT and the call for a "patriotic history" have become key components in the political agenda of right-wing US ethnonationalists seeking

*Michael C. Dreiling is a professor of sociology and department head at the University of Oregon, where he specializes in political and environmental sociology. He served two terms as president of AAUP Oregon and three terms as the inaugural president of United Academics at the University of Oregon from 2013 to 2018. From 2014 to 2020, he worked alongside allies and faculty activists to help unionize three additional bargaining units in Oregon. Pedro García-Caro is an associate professor of Spanish at the University of Oregon, where he specializes in transatlantic cultural relations between the Americas and Spain and previously directed the Latin American Studies program. He served for 10 years in the University of Oregon Senate and served as secretary and vice president for faculty governance and academic freedom of AAUP Oregon. He was appointed as a 2022–23 provost fellow for academic freedom.*

to script, through memory laws, a lopsided account of the country's history. This censoring movement is at the center of a renewed culture war in which the results of research and the activities of academics are monitored and judged as "anti-American" whenever they do not fit the narrow views of those seeking an epic account of American exceptionalism.

Over the past few years, an inquisitorial impulse reminiscent of the 1940s and '50s McCarthyite House Un-American Activities Committee (HUAC) has been unleashed on public libraries, schools, colleges, and universities. The "inquisitors" seek to identify books, classes, syllabi, and lectures that appear to threaten or undermine the tale of America's greatness. Much like HUAC ironically branding its victims as "Un- American," the banning of books and the censoring of academics carried out by the latest authoritarian nationalists has also been described as deeply flawed and un-American, and over 150 US academic associations signed a June 2021 statement opposing such legislation.[2] Encroachment on academic freedom and on freedom of speech often takes the form of a blanket condemnation of CRT, critical theory, critical thinking, and any cultural product deemed "subversive," with the accusers needing little evidence to substantiate their suspicions and allegations as they claim full proprietorship over the nation's essence. In this respect, today's inquisitorial impulse follows dictionary definitions of McCarthyism as (1) "the practice of publicizing accusations of political disloyalty or subversion with insufficient regard to evidence" and (2) "the use of unfair investigatory or accusatory methods in order to suppress opposition."[3] Lack of evidence, on the one hand, and the political aim to "suppress opposition," on the other, seem to sum up well the current movement to repress "identity politics" and any other discourse that may counter the white supremacist account of American "greatness."

In the stormy closing days of the divisive Trump administration, the President's Advisory 1776 Commission called for an active program of censorship of any critical account of US history. The stated purpose of the advisory committee was to enshrine "patriotic education in our nation." It published its 40-page report in the fateful month of January 2021, just two days before the inauguration of Joe Biden

and less than two weeks after the unpatriotic January 6 insurrection at the US Capitol. The report is a mixture of insipid summaries of the founding principles of the republic followed by a tirade—in an unsigned appendix—disparaging "identity politics" and equal opportunity programs. There is no citation apparatus, and the work has been described by the executive director of the American Historical Association, Jim Grossman, as a "hack job" and as "outright lies" by others.[4] As a piece of academic writing, it does not meet customary expectations even for undergraduates.

**At their core, gag orders infringe on the right of faculty to teach and the right of students to learn.**

Nonetheless, as a disturbing but predictable ripple effect of the 1776 Commission and the culture war fed by Trump and many of his supporters, Republican state legislators across the United States have introduced dozens of new laws targeting curricula related to race and racism since the spring of 2021. A number of states have already passed laws or established administrative requirements to restrict the teaching of US history, while others are set to follow suit. This is a form of doublespeak, an Orwellian limitation on speech in the name of free speech.

Gag orders, such as bans on teaching critical race theory or Florida's "Stop WOKE Act" signed into law in April 2022, are aggressive efforts to restrict education about racism, bigotry, and US history. Under the guise of prohibiting students from exposure to "divisive concepts," these politically orchestrated initiatives—although the details vary by state—seek to politicize curriculum, punish faculty who

exercise academic freedom, and demonize teachers, schools, colleges, and universities. At their core, these gag orders and legislative bans infringe on the right of faculty to teach the results of current research and the right of students to learn.

## Academic Freedom Is Unlike Free Speech

Academic freedom is informed speech, and as a recent book by professors Michael Bérubé and Jennifer Ruth asserts, "It's not free speech."[5] Politicians, pundits, and public bullies are not necessarily held to rigorous standards of expertise for their



opinions, claims, and assertions. They may exercise free speech, but it is not academic freedom. Opinionated rants are not the same as scholarly publications or a curriculum that must adhere to standards and expectations among a field of experts. This is what separates the claims of scientists, historians, and literary critics from opinions exercised as free speech. The former are bound to peer review at multiple levels and subject to refutation and rebuttal, contributing over time to a body of knowledge established and sustained with checks and balances. Formed through a recursive vetting process, legitimate academic claims arise in the context of scholars and scientists exercising academic freedom. A claim is not "right" because someone has the loudest mic or the most money or the greatest power but because their argument maintains validity within a larger community of people whose claims are also subject to scrutiny and vetting. Teachers trained in a field of expertise draw from that body of

vetted knowledge. In this way, knowledge produced by and accountable to academic freedom should not be dismissed as mere opinion. This credibility is what makes academic freedom so central to the functioning of a free and democratic society, and distinct from free speech. The exercise

## Colleges and universities must protect academic freedom from outside political, ideological, or economic interests.



of academic freedom is both a guarantee and a buffer against the routine harm that comes to democracy, social inclusion, and public knowledge through belligerent partisan attacks, calculated and profit-seeking manipulations of opinion, or deliberate disinformation campaigns.

It warrants repeating: academic freedom does not thrive under authoritarian governments.[6] Routinely we witness the effects of censorship in crushing critics, smothering dissent, and forcing scientists

and scholars to flee authoritarian states.[7] Certain historical and social conditions are necessary for academic freedom to persist and flourish, which in turn creates the space for innovative inquiry, exploration, and dynamic scientific and academic communities. The *Journal of Academic Freedom* and the AAUP more broadly have contributed to greater fluency in our collective understanding of the connections between and among history, democracy, and academic freedom.

To situate academic freedom in the institutional milieu of a free society is not arbitrary. It is instead a recognition of the contingency of academic freedom, much as any variant of national democracy is also historically contingent. Consequently, the practice of academic freedom by scholars, scientists, and educators is imbued with and constrained by social and political struggles over knowledge, memory, and identity. As the articles in this volume demonstrate, academic freedom within a state or nation is not static; it is an institutionalized value system tenuously built into modern universities, colleges, and a larger, often contested, system of education.[8]

### Democracy and Academic Freedom

One of the most underappreciated factors necessary for a minimally functioning democracy is a civil society with a robust knowledge sector. Knowledge sectors include a variety of institutions and organizations, from nonprofits to formal public and private schools, colleges, and universities. Within that sector, educational

institutions must not be hampered by violence, institutionalized discrimination, or interference from powerful political or economic interests. This is why colleges and universities and their accrediting bodies must protect academic freedom from outside political, ideological, or economic interests. Of course, when powerful political or economic interests attempt to shape or control the agenda of educational institutions, academic freedom is at risk of being hollowed out. The current wave of conservative reaction is about silencing critics and censoring honest discussions about bigotry, race, and racism. More starkly, violence or threats of violence target teachers and faculty, especially underrepresented faculty and those who teach topics that white nationalists want to silence. Teachers and faculty encounter these threats in the form of doxing, graffiti, and vandalism, which further erode their sense of safety and trust—and, ultimately, the promise of inclusive teaching, learning, and dialogue. The oppressive shadows of bigotry, discrimination, bullying, and inequity similarly threaten trust and safety. Democracy suffers when such assaults hamper or encumber the knowledge sector in civil society. Democratic societies require a highly open flow of information, discourse, and perspective-taking, which in turn facilitate the conditions for accountability with checks and balances. The free press is obviously a part of this equation. But educational institutions and nonprofits play a key role in bolstering the connective tissues between and across communities in a larger deliberative, complex, and inclusive society.

The legislative and political incursions into the realm of academia reviewed in this volume's 13 articles clearly usurp the rights of academics to freely and ethically conduct research and to share it through their teaching. If allowed to continue, the recently inaugurated racial censorship and its legislated limitations on knowledge production will have a lasting impact on generations of Americans who will grow up ill-prepared to live in a multicultural republic, uninformed about its complex histories, and unable to truly strengthen its civic bonds. □

**For the endnotes, see aft.org/ae/spring2023/ dreiling_garcia-caro.**

# Pride and Prejudice

## Teacher Autonomy and Parent Rights in the Incorporation of LGBTQ+ Studies in K–12 Education*



By Ricardo Phipps

Recent resistance to teaching students about the history of racial power and privilege dynamics in the United States has been accompanied by a parallel resistance to LGBTQ+ studies and resources in K–12 classrooms, libraries, and extracurricular spaces. Parents and politicians in two particular states have launched recent, highly politicized efforts to block exposure to LGBTQ+ culture through K–12 library book holdings and classroom reading curricula. Texas and Virginia have been the sites of heated arguments over the benefits and the dangers of students reading books with significant LGBTQ+ themes.

*Ricardo Phipps is the dean of the School of Humanities and Social Sciences at Stevenson University. A licensed professional counselor, he is active with the Maryland Counseling Association and recently served as president of the Maryland Association for Multicultural Counseling and Development (2021–22).*

*This is an edited excerpt, used by permission, from a longer article published in the AAUP *Journal of Academic Freedom*: Volume 13. For the original, see aaup.org/reportspubs/journal-academic-freedom/volume-13.

Demands have been made of school boards in both states to forbid school libraries from circulating LGBTQ+ themed books. In 2021, a Texas state legislator, Matt Krause of Fort Worth, compiled a list of 850 books that he deemed in need of investigation because of sexuality- or racism-themed content that he found concerning for K–12 consumption.[1] Framing the reading of LGBTQ+ themed books in K–12 as an issue of morality, Governor Greg Abbott[2] insisted that the state's education agency "investigate any criminal activity in our public schools involving the availability of pornography," which has librarians worried that their book choices could be criminalized.

In Virginia, Governor Glenn Youngkin framed book bans as an issue of parental prerogative and control.[3] The Henrico County Public Schools is one of the Virginia districts that has established a review committee to investigate parent concerns about the content of books. A parent filed a complaint with the school district about the appropriateness of a book titled *I'm a Gay Wizard*, found only in a district high school library, citing concerns that a scene of oral sex between two boy characters could result in "premature sexualization" and subsequent "pornog-

raphy addiction."[4] Other states, such as South Carolina[5] and Mississippi,[6] have been the sites of similar conflicts.

In other states, legislatures have taken even more aggressive action to curtail the inclusion of LGBTQ+ culture in school curricula. Bills in states such as Tennessee, Missouri, Louisiana, and Florida have called for restrictions on the mention of any nonheterosexual orientation in classroom or extracurricular activities.[7] The first such "Don't Say Gay" bill was introduced during Tennessee's 2005 legislative session. To date, such legislation has only been passed and signed into law in Florida. The Florida law restricts any Florida school district from encouraging "classroom discussion about sexual orientation or gender identity in primary grade levels [particularly K–3] or in a manner that is not age-appropriate or developmentally appropriate for students."[8] Critics of "Don't Say Gay" bills argue that they violate the First Amendment rights of both educators and students and promote stigmatization of LGBTQ+ identity, which negatively affects the mental health of students who identify as LGBTQ+.

### The Impact of LGBTQ+ Studies on Student Development

One of the arguments made against the rampant banning of LGBTQ+ themed books is that these books are instruments of self-discovery and identity development for some students who do not find this support elsewhere.[9] In books with primary characters who identify as LGBTQ+, students are able to encounter images of themselves and narratives that mirror their own or their families'. They find models for families with same-sex parents, for coping with homophobia and transphobia, for coming out, and for forming support systems beyond their biological family. Integration of LGBTQ+ themed literature into school curricula also provides a space for challenging the homophobic and transphobic messaging that is still common in the United States. LGBTQ+ affirming course content can be a vital resource for healthy cultural identity development.

Several models exist to describe cultural identity development, with particular models articulated to outline various aspects of LGBTQ+ identity development. Professor Eli Coleman[10] posits a five-stage model for gay and lesbian adolescent identity development. It consists of the pre–coming out stage,

the coming out stage, the exploration stage, the first relations stage, and the integration stage. In the pre–coming out stage, individuals may question their sexual identity due to nonnormative sexual thoughts and attractions and try to resolve the internal conflict by seeking out information to increase their self-understanding. Books that normalize sexual identity confusion can help young people realize that they are not alone in their struggle for identity clarity and confirma-



**LGBTQ+ themed books are instruments of self-discovery and identity development.**

tion. Parents who oppose the inclusion of LGBTQ+ themed books in school libraries and school curriculum argue that LGBTQ+ themed books are most dangerous when youth are in this pre–coming out stage and may not be certain about sexual orientation identity.[11] They argue that exposing students to information about LGBTQ+ identity without guidance may lead to premature acceptance of gay or lesbian identity. Books may also be a source of support during the other stages of identity development, during which time individuals begin to disclose their identity to others and to build their first relationships, friendships, and possibly romantic relationships as people who iden-

tify as gay or lesbian. Because these types of relationships are not commonly seen in mainstream culture, individuals may seek answers to questions about how to form and maintain such relationships from literature. The lack of candid conversations in families, churches, schools, and other civic settings about nonheterosexual identity development leaves a vacuum of the information, role modeling, and support that is critical for healthy self-esteem. Less research has been conducted to deepen understanding of transgender identity development than has been done for gay and lesbian identity development.[12] Transgender identity development models often over-rely on models more relevant to sexual orientation identity development. A characteristic shared by all these differing models is that individuals typically experience anxiety about their identity not matching the heteronormative, cisgender mainstream and about how their interpersonal relationships may be affected.

Exposure to LGBTQ+ themed literature by students who do not identify as LGBTQ+ serves to challenge stereotypes and myths that may be held about nonheterosexual identities. Students who have been presented with negative, one-sided messages about LGBTQ+ people from home, places of worship, or various media outlets can explore other aspects of the needs, interests, and concerns of people who identify as LGBTQ+, providing these readers a space to reflect on biases and assumptions they have formed. Prejudices can typically be overcome when the person holding them has meaningful contact with the group that is the target of prejudice.[13] This could happen through in-person interactions but may also be facilitated through literary contacts with persons from a group about whom prejudiced views are held.

## The Role of Teachers in LGBTQ+ Studies Curriculum Construction

There is a very practical benefit to trusting teachers to craft lessons that integrate LGBTQ+ culture into their classrooms. Classrooms can be relatively safe spaces to challenge cultural biases and assumptions if discussions are managed appropriately.[14] The availability of literature that depicts diverse cultures is important in helping young people develop cultural sensitivity and respect for those from different backgrounds. In the case of LGBTQ+ culture, gaining information about LGBTQ+ history

and relationship dynamics is important in reducing misinformation that can fuel bullying, microaggressions, and other forms of discrimination in schools. Numerous studies document increased depression, anxiety, posttraumatic stress disorder, nonsuicidal self-injury, suicidal ideation, and suicidal activity linked to discriminatory treatment experienced by LGBTQ+ students in schools.[15] To make effective this practical benefit of supporting teachers' integration of LGBTQ+ culture into their classrooms, teachers must be allowed instructional autonomy to craft lessons around cultural competence. Instead, significant restrictions have been placed on educators in some areas.

Simply leaving to teachers decisions about integrating LGBTQ+ themes could have harmful results. Teachers who have unconscious biases toward LGBTQ+ people could unknowingly manifest these biases in the classroom. Oversight and accountability must exist in terms of cultural infusion in K–12 curricula. Advisory groups comprised of parents, teachers, school counselors, administrators, and community representatives, including people from culturally diverse backgrounds (race or ethnicity, sexual orientation, gender identity, religion, disability, etc.), are needed to support educators as they design lessons that address cultural communities with a history of marginalization, and school administrators have the ultimate responsibility to monitor the pedagogy of their teachers for content and teaching style.

Recent movements to limit LGBTQ+ themed literature is a matter of academic freedom for teachers, but it is also a matter of recognition of the LGBTQ+ community as a valuable cultural component of society rather than as an immoral faction of the population that should be avoided and silenced, especially by children and adolescents. Teachers who commit to designing lessons that include LGBTQ+ cultural content generally recognize the contributions of LGBTQ+ culture and the consequences for their students of living in a world that does not recognize these contributions. However, teacher-education programs should include intentional activities to equip future teachers to effectively integrate LGBTQ+ themed content into their classes. Professor Joseph Jones presents a model for faculty in teacher-education programs to help pre-service teachers learn

to address homophobia in K–12 schools.* Laurie Hansen (a teacher-education fieldwork manager) proposes strategies for fostering safe discussions and critical thinking about LGBTQ+ topics.†

The challenge for teacher-education programs is to prepare pre-service teachers to constructively confront resistance they may face in integrating LGBTQ+ themes into their classrooms. Professors Jill Hermann-Wilmarth and Caitlin Law Ryan[16] suggest that it is prudent to expect that some parents will object to the inclusion of LGBTQ+ themes in elementary school classrooms but that teachers should avoid overgeneralizing that all parents will resist. Hermann-Wilmarth and Ryan suggest helping pre-service teachers gain comfort with some simple strategies for navigating the inclusion of LGBTQ+ themes in elementary school curricula, such as clearly situating LGBTQ+ themes within the larger realm of inclusion and diversity. The authors suggest incorporating LGBTQ+ themed literature as part of a series of books about understanding different types of families or traditions, alongside topics such as multiracial families or families with differently abled people. Hermann-Wilmarth and Ryan also recommend creating a space to educate parents about the importance of LGBTQ+ inclusion in the elementary classroom and to apprise parents of the scope and limits of the inclusion so that parents understand the age-appropriateness of the lessons. Lastly, rather than simply abandoning the lesson plan, teachers who encounter resistance should be prepared to offer individual accommodations for students whose parents adamantly object to their children participating in LGBTQ+ themed lessons. For pre-service teachers, these can be moments of great apprehension and anxiety. Teacher-education program faculty must commit themselves to equipping pre-service teachers to confront the variety of reactions they may face to incorporating LGBTQ+ themes into elementary classrooms. Faculty should also empower pre-service and novice teach-

*Jones explains his model in "Infusing Multicultural Education into the Curriculum: Preparing Pre-Service Teachers to Address Homophobia in K–12 Schools," which is available for free at files.eric.ed.gov/fulltext/EJ1104934.pdf.
†Hansen shares her strategies in "Encouraging Pre-Service Teachers to Address Issues of Sexual Orientation in Their Classrooms: Walking the Walk & Talking the Talk," which is available for free at files.eric.ed.gov/fulltext/EJ1065498.pdf.



# Teachers must be allowed instructional autonomy to craft lessons around cultural competence.

ers by helping them understand that teachers' freedom to design and execute curricula does not preclude the need to engage with parents to secure buy-in.

Current political efforts to prohibit any incorporation of LGBTQ+ themes in elementary school pedagogy directly contradict the multicultural competencies required by the Council for the Accreditation of Educator Preparation and prioritized in most teacher-education academic programs. Do program leaders simply yield to legal pressures and stop teaching pre-service teachers to skillfully acknowledge alternatives to heteronormativity in elementary school classrooms, or do they equip pre-service teachers to be advocates for inclusion even in defiance of legal restrictions? Teacher-education programs do not teach pre-service teachers to promote any particular sexual orientation or

gender identity but instead prepare them to appropriately recognize that differences in identity and family structure do exist, without endorsing one as preferred and others as inferior.

## Conclusion

Rather than restricting K–12 teachers from introducing LGBTQ+ themed information into their classes, an alternative approach is to develop curricula that are transparent and provide basic learning objectives related to LGBTQ+ culture. These can help professionals, including teachers, study constructs like cultural competency,[17] cultural humility,[18] and cultural efficacy[19] to use as frameworks for their own self-reflection and professional practice. Teachers trained in cultural competency, cultural humility, and cultural efficacy are prepared to reflect on their own biases and assumptions, identify power and privilege dynamics, and craft lessons that are culturally affirming. Such educators teach in a way that welcomes multiple perspectives. Also, having some background in developmental psychology, educators have insights about psychosexual development and about what is age-appropriate for students. Teacher-education programs need the latitude to freely craft their curricula of multicultural infusion based on what is known about children's ability to appropriately grasp differing cultural identities from the social sciences rather than based on political pressures.                    □

**For the endnotes, see aft.org/ae/spring2023/phipps.**

# WHEN WE FIGHT

**A DOCUMENTARY ABOUT THE LOS ANGELES TEACHERS' STRIKE**

In response to overcrowded and underfunded classrooms, 98 percent of teachers in the nation's second-largest school district authorize a historic strike for the schools their students deserve.

Watch as the strike unfolds before our eyes, highlighting the stories and leadership of teachers, parents, and students.

Ask your union leader to arrange a free screening.

**HOST A FREE SCREENING:**
whenwefightmovie.com/contact

WORKERS UNITE FILM FESTIVAL 2022 "WHEN WE FIGHT" BEST DOCUMENTARY SHORT

Official Selection Swedish RåFILM Institute

SPECIAL MENTION MARCH ON WASHINGTON FILM FESTIVAL 2022

# New Resources to Support Educators, Students, and Families

## Supporting English Language Learners

ColorinColorado.org, a collaboration of PBS station WETA and the AFT, is the nation's most widely accessed website serving educators and families of English language learners (ELLs) with information on how to help ELLs succeed in school. The resources on Colorín Colorado are used in professional development and for family outreach by schools across the country and reach more than three million users each year.

Several new literacy resources are now available. They're all specifically designed for educators and families who are hungry for culturally responsive, multilingual tools to support student success, school-family partnerships, and professional growth.

The collection "Using Diverse Books with ELLs: A Guide for Educators" (colorin colorado.org/diverse-books) offers numerous practical tips for expanding access to books for ELLs and immigrant students—including how to choose books that reflect students' diverse experiences, cultures, and languages, and how to ensure books will be challenging but not frustrating for students. Visit this collection to learn more about why students need access to diverse books and how these books can support writing instruction, and to get specific recommendations for high-quality books across grades, subject areas, genres, and topics.

Another valuable resource is the family literacy video series, which has three new projects available in multiple languages. "Being Bilingual Is a Superpower!" (go.aft.org/h56) is an engaging animation developed for family members of ELLs, with practical and easy recommendations to support language and literacy development at home. "Family Literacy Tips" (go.aft.org/hl3) is a series of short public service announcements featuring an early childhood educator with practical tips for supporting reading at home regardless of adults' reading levels. Tips include ideas for families of young children, school-aged children, and teenagers.

Lastly, the "Indigenous Family Engagement" series was developed to share culturally responsive messages for Indigenous families from Latin America. The first culture highlighted is the Mam culture, with educator Henry Sales discussing in English (go.aft.org/upu), Spanish (go.aft.org/2gj), and Mam (go.aft.org/ff1) the importance of preserving family language and culture and of families' rights for language access.

These and many more resources for ELL educators can also be found on the new free web app, Colorín on the Go (go.colorin colorado.org).



ILLUSTRATIONS BY RAFAEL LÓPEZ

## Professional Development for Reading Instruction

The AFT has many opportunities for members to learn new teaching strategies, reinforce best practices, and stay up to date on helping all learners become strong readers. Beginning Reading Instruction and Reading Comprehension Instruction are the AFT's flagship reading courses offered either in a train-the-trainer model or as participant training. Beginning in summer 2023, two new modules will be offered that combine content from both courses in manageable time chunks.

First is a new 10-hour asynchronous e-learning course that will help any AFT member learn about the science of reading and high-leverage instructional practices. Next, Reading Interventions 101 is designed to help educators understand what makes a successful reader and how to support struggling readers with appropriate interventions. Participants will analyze student data to identify skill deficits and develop an instructional intervention plan with evidence-based reading strategies.

For more information on these courses, contact Lisa Dickinson in the AFT's Educational Issues Department: edickinson@ aft.org.

## Apply for the Next Teacher Leaders Program Cohort

It's time to identify the next cohort of AFT Teacher Leaders! The yearlong Teacher Leaders Program brings together a select group of teachers who want to learn how to take active leadership roles in their schools and communities, build their profession, and strengthen union connections to the community.

The AFT Teacher Leaders Program supports the goals of union locals and provides them with

- strong ties to community organizations and community leaders;
- an informed teacher voice and member engagement opportunity;
- a vehicle for positive messaging about public schools and their unions; and
- a pipeline for future school and union leaders.

Applications for the Teacher Leaders Program are due April 20. For more information, visit aft.org/position/teacher-leadership or contact Lisa Dickinson at edickinson@aft.org for a link to the program's informational webinar.

# Introducing SML's Higher Education Resources



SDI PRODUCTIONS / E+ / GETTY IMAGES

The Share My Lesson community expanded to include higher education in 2021 and now has over 600 resources, including webinars, lesson plans, and blog posts (start browsing at go.aft.org/1w5).

Here, we highlight two major collections—from the Edward M. Kennedy Institute and the Council on Foreign Relations—plus individual resources ranging from a blog post on supporting LGBTQIA+ students to rethinking language on mental health.

## Building Civic Muscles

SML is thrilled to have the Edward M. Kennedy Institute for the United States Senate as a partner. The institute, which strives to increase civic participation and strengthen our democracy, has added dozens of resources to SML (visit go.aft.org/1fx for its collection). One versatile resource for higher education is the "Dialogue Circles Activity" to help air sensitive topics, develop consensus within a group, and ensure students feel able to ask for support.

For developing students' understanding of lawmaking, explore the "Today's Vote in the Classroom" series; these lesson plans introduce challenging topics and have students take on roles as legislators. One excellent pairing is of "Today's Vote in the Classroom—Climate Change," in which students draft and debate provisions for a bill on climate change, followed by "My Political Autobiography," in which they reflect on their lives and their recent learning about environmental justice to explore their political identities.

## Studying the Globe

Another terrific SML partner is CFR Education, an initiative of the Council on Foreign Relations. The majority of its 70-plus resources are suitable for higher education (check out the collection at go.aft.org/v9y). Its lesson plans offer in-depth explorations of globalization, climate change, statehood and sovereignty, human trafficking, foreign policy, and more.

CFR Education has made these complex topics approachable. Some resources anchor the concepts in something familiar to students. For example, "The Globe-Trotting Journey of a Sneaker," which is part of a module on global trade, is a video showing how products—from design to materials to assembly to marketing—come from all over the world. Other resources intentionally build on each other. "What Is Sovereignty?" offers an introduction to self-determination and can be followed by "The Various Challenges to Sovereignty," which provides a much more nuanced look at internal and external threats. Both of these resources are embedded in a module on sovereignty that also explores the European Union and the millions of people who are stateless.

## Browsing to Meet Your Students' Needs

There's a great variety in SML's hundreds of higher education resources. Here are a handful chosen to show the range of supports you'll find once you start browsing.

- In her compelling blog post, "Queer on Campus," Bethany Gizzi (the president of the Faculty Association of Monroe Community College) explains the importance of all students having opportunities to engage in accurate studies of gender and sexuality; she also offers tips on how to create safe spaces for LGBTQIA+ students.
- The "Hydrogen Energy and Climate Change Educator Guide" is a detailed lesson plan from MIT's *TILclimate (Today I Learned: Climate)* podcast. With group activities and links to MIT explainers on climate change, students are able to delve deeply into our environmental crisis.
- The National Alliance on Mental Health posted "Your Language Matters: Talking About Mental Health" on SML. This well-designed one-pager helps students and educators more carefully choose their words; consider, for example, the difference between saying Juan "lives with a mental health condition" or "suffers from a brain disorder."

Do you have resources you'd like to share? SML makes it easy! And if you have ideas or requests, reach out to content@sharemylesson.com.

–THE SHARE MY LESSON TEAM

## Recommended Resources

To access these free resources, visit aft.org/ae/spring2023/sml.

Dialogue Circles Activity

Today's Vote in the Classroom—Climate Change

My Political Autobiography

The Globe-Trotting Journey of a Sneaker

What Is Sovereignty?

The Various Challenges to Sovereignty

Queer on Campus

Hydrogen Energy and Climate Change Educator Guide

Your Language Matters: Talking About Mental Health

# Trauma Counseling Program

**for AFT members to provide help and healing after facing personal or workplace trauma.**

TRAUMA COVERAGE®

## Covered Incidents

To receive this *free benefit*, AFT members who are actively working or on leave may submit a claim for up to one year after one of the following incidents:

**24/7**

Aggravated assault

Domestic violence

Sexual assault

Mass shooting

Acts of terror

Major disaster

**AT WORK**

Bullied, harassed or threatened

Traumatized by witnessing a violent incident

Infection by contagious disease

Secondary trauma

**aft.org/members-only**

aft
*A Union of Professionals*
AFT +
Member Benefits

# Save on eligible vet bills*

With our pet health insurance for dogs and cats, powered by Pets Best, you'll get reimbursed up to 90% on eligible vet bills.*



UNIONPLUS

aft
*A Union of Professionals*
AFT +
Member Benefits

See more at
**aft.org/benefits**

# AFT TEACH
## TOGETHER EDUCATING AMERICA'S CHILDREN

2023 AFT TEACH Conference ▶ July 21-23 ▶ Washington, DC

## Register for the 2023 AFT TEACH Conference

Join us July 21–23 for an inspiring, collaborative professional learning conference in Washington, DC! Be a part of 50-plus hands-on sessions that address issues facing your students, schools, and communities, such as

• educator and student safety and well-being;
• instructional strategies that span the curriculum;
• organizing and advocating for better schools; and
• supports for special populations.

Early-bird discounts end June 1.

### aft.org/teach

**f** @AFTteach

**y** @AFTteach

**↑** aft.org/teach