



A Union of Professionals

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AMERICAN Educator

A QUARTERLY JOURNAL OF EDUCATIONAL RESEARCH AND IDEAS

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**We Care.
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We Vote.**

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AFT 2020 Endorsement Process

Whether at the bargaining table or the ballot box, the AFT provides a vehicle for working people and our communities to build collective power and accomplish what cannot be achieved alone. The more involved our members are, the stronger our collective voice is and the more effective our political role becomes.

With the 2020 presidential election underway, our members' voices need to be heard.

That's why the AFT executive council approved a presidential endorsement process that aspires to ensure unprecedented member input, with the core objectives of:

- ▶ Expanding opportunities for members to give input and feedback;
- ▶ Keeping our members informed each step of the way;
- ▶ Providing for direct candidate engagement with AFT members to ensure candidates understand and value the issues affecting our members; and
- ▶ Striving for the highest level of member participation ever achieved in an AFT presidential endorsement process.

Visit AFTvotes.org to learn more, or email AFTvotes@aft.org to offer any suggestions or input on the process.

Make Your Voice Heard



The Freedom to Teach

RANDI WEINGARTEN, AFT President

In April, AFT President Randi Weingarten spoke at the National Press Club, detailing what she called a “crisis in the teaching profession” and outlining solutions to address it. The following is an excerpt of her speech, which is available in full at www.aft.org/freedomtoteach.

Consider what teachers have recently said about why they teach:

“I teach because I want to change the world, one child at a time, and to show them to have passion and wonder in their learning.”

“I teach so the next generation will question—*everything*. The classroom should be a place where we set children’s minds free.”

“I teach because our democracy cannot survive without citizens capable of critical analysis.”

Why I felt called to teach is best summed up by this poster I have moved from office to office since I taught in the 1990s: “Teachers inspire, encourage, empower, nurture, activate, motivate, and change the world.”

Teaching is unlike any other profession in terms of mission, importance, complexity, impact, and fulfillment. Teachers get the importance of their work. So do parents and the public. But teachers know that some people *don’t* get it—whether it’s the empty platitudes, or the just plain dissing. And this has taken a huge toll.

Teachers and others who work in public schools are leaving the profession at the highest rate on record. There were 110,000 fewer teachers than were needed in the last school year, almost doubling the shortage of 2015. All 50 states started the last school year with teacher shortages.

This is a crisis, yet policymakers have largely ignored it.

And it’s getting worse. Enrollment in teacher preparation programs is plummeting—dropping 38 percent nationally between 2008 and 2015.

More than 100,000 classrooms across the country have an instructor who is not credentialed. How many operating rooms do you think are staffed by people without the necessary qualifications? Or airplane cockpits? We should be strengthening teacher preparation programs, not weakening teacher licensure requirements, leaving new teachers less and less prepared. Why are we doing this to our kids?

Teaching has become so devalued that, for the first time in 50 years, a majority of parents say they don’t want their children to become teachers.

The challenge is not just attracting people to teaching. The United States must do a much better job of keeping teachers in the profession. Every year, nearly 300,000 leave the profession; two-thirds before retirement age. Attrition in teaching is higher than in nursing, law, engineering, or architecture. Schools serving majorities of students of color and students living in poverty experience the highest teacher turnover rates. Losing so much expertise has an enormous negative impact on students’ education. The financial consequences are also steep—more than \$2 billion annually, and that’s a conservative estimate.

It is a failure of leadership to discard so much experience and so much potential—and to lose so much money—to this endless churn.

We are losing the teacher diversity battle as well. A new analysis by the Brookings

Institution found that America’s teaching workforce, which is overwhelmingly white, is growing less representative of those they teach, as students of color now make up the majority of public school students.

These statistics reveal an alarming and growing crisis, and it’s well past time we took action.

This crisis has two major roots: deep disinvestment in public education and the deprofessionalization of teaching. America must confront both.

Disinvestment

The teacher uprisings of the last two years have laid bare the frustration over insufficient resources, deplorable facilities, and inadequate pay and benefits for educators. In what President Trump calls the “greatest economy ever,” 25 states still spend less on public education than they did a decade ago. In some states, conditions are so bleak that teachers who previously wouldn’t have dreamed of going on strike feel they have no choice but to walk out to get what their students need.

In 38 states, teacher salaries are lower than before the Great Recession. Research from the Economic Policy Institute shows that teachers are paid 24 percent less than other college graduates. And the stories are all too common of teachers working two or three additional jobs, and even selling their blood plasma, just to get by.

In addition to the soaring cost of healthcare, there is the burden of student loans. The average student loan for a



FCFT - Fairfax County Federation of Teachers

@FCFTcares



We face a local and national teacher shortage, after years of disinvestment and disrespect of the education profession. In Fairfax County and across the country, we need to [#FundOurFuture](#) and give educators the [#FreedomToTeach](#).

♡ 3 9:11 AM - May 2, 2019



master's degree in education jumped 82 percent between 2002 and 2012, and the portion of students taking loans grew from 41 to 67 percent over that period. One of the few ways of mitigating this—the Public Service Loan Forgiveness program—has been completely sabotaged by the Trump administration. Teachers are being squeezed in both directions: lower income and higher expenses.

And then there are the conditions in which students learn and teachers teach. Public school facilities got a D-plus from the American Society of Civil Engineers. That means thousands of schools are outdated, unsafe, and unfit, and are literally making people sick.

What does that look like? Rodent infestations in too many schools to count. What does that smell like? Toxic mold throughout schools in Puerto Rico. What does that feel like? Freezing classrooms in Baltimore, when patching up old boilers didn't work anymore. Don't tell these kids and their teachers that investment doesn't matter.

Inadequate funding for education is sometimes the result of weak economies. But more often, it is a deliberate choice—to cut funds for the public schools 90 percent of our students attend—in order to finance tax cuts for corporations and the superrich or to siphon off funds for privatization.

Everything I just described to you is a disgrace. Students know it's a disgrace. Parents know it's a disgrace. Administrators know it's a disgrace. Teachers know it's a disgrace.

And it is the root cause of the teacher uprisings. And it's at the heart of the AFT's Fund Our Future campaign, where we are fighting for adequate investment in public education—from school levies to full

funding of Title I and the Individuals with Disabilities Education Act.

Change is happening, like in New Mexico, which has just boosted funding for public schools, and in Illinois and Michigan, where their new governors have pledged to increase investments. But it is shocking that so many politicians do not seem to know it is a disgrace, or at least act like they don't know.

Deprofessionalization

The disinvestment in public education and the failure of many states to make teaching a financially viable career go hand in hand with another major cause of the crisis we face—the deprofessionalization of teaching.

Ask teachers why they leave the profession. It's not just underfunding. Teachers are frustrated, demoralized, and really stressed. The lack of classroom autonomy and discretion supercharge that dissatisfaction.

In our online focus groups with teachers from across the country, they spoke about entering teaching excited, optimistic, and determined to make a difference in their students' lives. And they spoke with equally deep emotion about the stress and disrespect they soon experienced. This deprofessionalization is killing the soul of teaching.

It's being micromanaged—told that the only decorations allowed in your classroom are the motivational posters provided by a textbook publisher.

It's worrying about the pacing calendar that requires teachers to follow a predetermined schedule for teaching each topic, even if students need more time to understand the content.

It's the systemic fixation on standardized testing that dictates virtually every

decision about student promotion, graduation, and school accountability, instead of authentic assessments of student learning, like research papers and project-based learning.

Just as the fixation on testing makes teachers' hair stand on end, so does excessive paperwork—data collection, data entry, and data reporting. One focus group participant summed it up this way: “Teachers are drowning in a sea of paperwork; just let us do our jobs.”

But before one yearns to turn the clock back, there are no halcyon days of teacher professionalism to return to. A century ago, the principles of Taylorism used in factory work were applied to the classroom, with the teacher reduced to the role of unskilled laborer. Decades later, in the age of No Child Left Behind and Race to the Top, prepackaged, corporate curricula were intended to standardize teaching to conform to standardized assessments. Scripted curricula, a.k.a. “teacher proofing,” took restricting teacher discretion to its extreme, not only denying teachers' creativity and expertise, but assuming their incompetence.

So the fight for professionalism isn't new—but it has always come from within the teaching ranks, and from our teachers unions.

More than 30 years ago, two powerful ideas that advance teacher professionalism came from the AFT. Our president at the time, Albert Shanker, introduced the idea for the National Board for Professional Teaching Standards, because it is essential to hone and recognize accomplished practice. And, because teachers have always known that the freedom to teach goes hand in hand with credible teacher development, feedback, and evaluation, the idea for improving practice through peer assistance and review originated in our ranks.

Nearly 20 years ago, the AFT's Albert Shanker Institute released a report on what teachers and other professionals need to succeed. The findings are all too familiar, such as the fact that teachers love their work but are “concerned about conditions on their jobs that deny them the respect, the rewards, the resources ... and discretion in decision-making ... to do their best work.”

And for almost a decade, participants in the AFT's Teacher Leaders Program

have turned their ideas into practice and their advocacy into policy.

While we have been at this work for decades, it has collided with a period in American education of top-down control, test-driven decision making, disinvestment, and teachers being denied authority to make educational decisions. That's not the case in high-achieving countries like Finland, Singapore, and Canada, where teachers are rightly considered "nation builders," and their pay, time for collaboration, and involvement in decision making reflect that.

It's not rocket science to see that the United States has gone in the wrong direction and that we need to reverse course. Teachers need the freedom to teach. If we want our public schools to be all we hope, if we want to attract and retain a new generation of wonderful teachers, this cannot be solely a teacher issue or a teacher union issue. We must act, and act together.

So What Do We Do about It?

Solving this crisis requires treating teachers as the professionals they are.

To change the culture so that the teaching profession is marked by trust, respect, and the freedom to teach, there are aspects we can legislate and we can negotiate.

And that starts by focusing on three essential areas:

1. Developing a culture of collaboration;
2. Creating and maintaining proper teaching and learning conditions; and
3. Ensuring teachers have real voice and agency befitting their profession.

I. Develop a Culture of Collaboration

Developing a culture of collaboration doesn't happen magically. It requires trust, leadership, and pioneers—all of which are in abundant measure in a district that has become an exemplar for school collaboration—the ABC Unified School District in Los Angeles County. They believe in solving problems, not winning arguments. They know that when teachers and administrators help each other succeed, they help students succeed. This is the ethos guiding other places, as well, including Meriden, Connecticut, and New York City, with its new Bronx Plan.

And the research confirms this. John McCarthy and Saul Rubinstein have researched collaboration in public schools for the past decade. They've studied 400 schools in 21 districts in six states. What have they learned?

- Formal labor-management partnerships at the district level lead to greater collaboration at the school level;
- Greater school-level collaboration improves student performance; and
- Collaboration reduces teacher turnover, particularly in high-poverty schools.

Teachers in countries that outperform the United States on international assessments have more time for collaboration and planning each day, and for visiting each other's classrooms. That's because these countries understand that preparing to teach is as important as actual instruction.

By contrast, half of the teachers in the United States reported in an extensive international survey that they have never observed other teachers' classes. They spend more time teaching than educators in higher-performing countries and average an hour less per day for planning and collaboration.

So here's an idea: build more teacher time into school schedules in addition to individual prep periods—to observe colleagues' lessons, look at student work, and plan collaboratively.

What else does collaboration do? Collaboration fosters trust, and vice versa. And one of the largest long-term studies of school improvement showed that the most effective schools have high degrees of trust. How do you do that? By sharing information, discussing issues, and solving problems with teachers, which gives them voice and respect as integral parts of a learning organization. This is every bit as

important as having a credible system of teacher development and evaluation. So here's another idea: trust teachers. Develop policies—from the school board to the principal's office—with teachers, not to teachers.

II. Create and Maintain Proper Teaching and Learning Conditions

For teachers, creating and maintaining proper teaching and learning conditions starts with a simple question: What do I need to do my job, so that my students have what they need?

I could say that class size should be small enough so that teachers and students can form real relationships, so they can delve deeply into projects that interest students, and so students are actively engaged in their learning. But many classrooms don't even have enough chairs and desks for every student, and teachers often have classes so large that they can't engage with every child every day, or can't thoughtfully review and grade their students' work without having to stay up until 3 a.m.

I could tell you that every classroom should have a state-of-the-art interactive whiteboard. But at the very least, every student and teacher deserves computers that work, along with decent internet. While we're at it, how about copy machines? With paper!

I could tell you every school should have the necessary wraparound services and enrichment opportunities for students, so that we are meeting every student's needs. But too often, resources are so limited that we are grateful for a part-time school nurse, overloaded counselors, and castoff athletic gear and musical instruments.

So here's another idea: ask teachers what they need to do their jobs so their students succeed. Let's take the answers



Rep. Pramila Jayapal
@RepJayapal



"We should be unleashing teachers' talents, not stifling them."
Yes! Fantastic speech from @rweingarten. It's time we give back teachers the #FreedomToTeach!

♡ 87 4:02 PM - Apr 18, 2019



Joe Doctor
@joefdoctor



...WOW.

For teachers to get better together, practice has to be public, and time and structures need to support teachers to observe each other and collaborate on improvement. #FreedomToTeach

♡ 12 9:38 AM - Apr 18, 2019

teachers provide and use them as the basis of an audit of teaching and learning conditions, and then integrate the results into assessments of the district. Ask principals and parents and students as well. Then let's act on those audit results—through legislation, lobbying, collective bargaining, and, if necessary, school finance lawsuits.

This would be the start of a long-term, sustainable commitment to the necessary teaching and learning conditions for every child in every public school, regardless of demography or geography.

III. Ensure Teachers Have Real Voice and Agency Befitting Their Profession

People like to say they want the “best and brightest” to become teachers. But when teachers start working, they find that, all too often, they don't get to make consequential decisions. They're essentially told to check their ideas, imagination, and initiative at the schoolhouse door.

A teacher in one focus group lamented the lockstep regimen at her school—that every class in the same grade must be on the same lesson plan, on the same day, regardless of student need. I hear this constantly.

Do we really want teachers to have to close the classroom door and hope no one “catches” them doing what they think is best for their students? We should be unleashing teachers' talents, not stifling them. Educators need the benefit of the doubt—the freedom to teach.

The classroom teacher is the only person who has knowledge of the *students* she is teaching, the *content* she is teaching, and the *context* in which she is teaching. *What* gets taught is determined by district guidelines and curriculum. But *how* it gets taught is best determined by teachers

using their professional expertise and judgment. Teachers meet students where they are, and teachers should have the freedom to find ways to get them to where they need to go.

Scholars Jal Mehta and Sarah Fine spent six years studying American high schools. They found that powerful learning was happening most often in electives, clubs, and extracurricular activities. I found this with my own students, as well, as we prepared for the “We the People” debate competition. We'd spend hours after school—working in teams, deciding their best arguments, practicing, and polishing. We developed deep relationships with each other and a meaningful understanding of the Constitution. Why do we free teachers to run with their ideas after 3 p.m. but rein them in during the school day?

Researcher Richard Ingersoll and his colleagues found that greater teacher leadership and influence in school decision making significantly improve student achievement in both math and English language arts. Yet, despite such evidence, they also found that, in most schools, teachers report having little involvement in school decision making.

Too often, top-down control trumps all else. That hurts students. And it demoralizes teachers.

The assumption should be that teachers, like other professionals, know what they are doing. When teachers are asked—or told—to do something, they should have the latitude to ask two fundamental questions: What is the purpose of what I am being told to do? And how does this contribute to teaching and learning?

Here's the last idea I'll offer today: respect teachers by giving them the latitude to raise concerns and act in the

best interests of their students without fear of retaliation, as New York City's United Federation of Teachers negotiated in its latest contract.

The ideas I have outlined are not quixotic fantasies. They are pragmatic strategies that create the sustainable teaching and learning culture that enables the freedom to teach.

These strategies are the reality in high-achieving countries. And they are enabled by the Every Student Succeeds Act, which Congress passed into law with bipartisan support in 2015.

Of course we must call out the austerity hawks, the privatizers, and those who disparage and devalue public education. But let's build on these two years of incredible educator activism. Let's bring the proposals I've outlined above to the bargaining table, to school boards, and to statehouses. And, if officials speak out of both sides of their mouths—saying teachers and teaching are important but acting as if they are anything but—let's hold them accountable, not just for their hypocrisy, but for failing to address the real crisis. And, yes, let's pay teachers appropriately for the tremendously important work they do.

Some say that you can't negotiate teacher professionalism, that you can't legislate respect for the teaching profession, that cultures forged over decades of deprofessionalization are too entrenched to change. Talk about being agents of the status quo. Of course change is possible. Many AFT affiliates across the country offer living proof that, where there are willing partners, they are finding ways.

Teachers are drawn to this profession because of their love for children and their passion for teaching. Let's reignite that passion, not extinguish it. So, to America's teachers, my heroes who “inspire, encourage, empower, nurture, activate, motivate, and change the world,” I say keep fighting. And keep caring. You are making a difference not only in your classrooms but in reclaiming our profession. The AFT commits everything we've got—the resources and influence of our 1.7 million members—to combat this disinvestment, deprofessionalization, and disrespect by fighting to fund our future and to secure the freedom to teach.



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Download this and other free guides and activities to support you and your students today.

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OUR MISSION

The **American Federation of Teachers** is a union of professionals that champions fairness; democracy; economic opportunity; and high-quality public education, healthcare and public services for our students, their families and our communities. We are committed to advancing these principles through community engagement, organizing, collective bargaining and political activism, and especially through the work our members do.

RANDI WEINGARTEN
President

LORRETTA JOHNSON
Secretary-Treasurer

MARY CATHRYN RICKER
Executive Vice President

AMY M. HIGHTOWER
Editor

JENNIFER DUBIN
Managing Editor

SEAN LISHANSKY
Copyeditor

JENNIFER CHANG
Art Director

JENNIFER BERNEY
Graphic Designer

RACHEL ANDERSON
Production Assistant

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FUND OUR FUTURE

In March, the AFT announced a sweeping campaign to fund the future of American public education. Amid the continuing wave of teacher activism protesting education disinvestment, the Fund Our Future initiative aims to take the teachers' megaphone into Congress, statehouses, and communities nationwide.

Launched by AFT President Randi Weingarten and AFT leaders across the country, this ambitious new deal for public schools and colleges zeros in on the concrete steps necessary to:

- Reverse the economic austerity masquerading as reform that has stripped support from K-12 and higher education, hurting children and sending tuition and student debt skyrocketing.
- Recognize those states that have made commitments to fund our future, where the campaign will be to sustain and build on that investment.
- Fight for a national commitment to the programs that can provide necessary and equitable investment in public schools and universities across America.

Fund Our Future includes an array of community- and state-based legislative initiatives. And on the national level, we're calling on Congress to fully fund Title I and the Individuals with Disabilities Education Act, increase investment in school infrastructure, secure operating funds at the national and state levels to counteract disinvestment in public colleges and universities, and forgive outstanding student loan debt under the Public Service Loan Forgiveness program. Read more at <http://go.aft.org/ae219news1>.



RECOGNITION FOR SCHOOL SUPPORT STAFF

Thanks to the activism of our members, paraprofessionals and school-related personnel (PSRPs) will be recognized in a new federal awards program, the first of its kind to honor public school preK-12 support staff. Every year, the Recognizing Inspiring School Employees (RISE) program will honor one classified employee to acknowledge the excellence shown by PSRPs nationwide. "What's amazing about the passage of the RISE Act is that, in an era of deep political division, this bipartisan bill passed in the Senate unanimously," says AFT President Randi Weingarten. "As a union, we've lobbied members of Congress and explained to them how important classified school staff are. This is the culmination of a tremendous effort by our members and leaders to raise the profile of some of the hardest-working people in our schools." Learn more at <http://go.aft.org/ae219news2>.

REPORT SERIES ON TEACHER SHORTAGES, LOW PAY

The Economic Policy Institute (EPI) is on a roll with a new report series on the teaching profession. One report highlights the challenges schools face in hiring and retaining teachers—challenges that are even tougher in high-poverty schools. It shows the struggles of schools to fill vacancies created by high teacher turnover. Such struggles are made worse by the shrinking pool of applicants and the reduced number of college graduates with education degrees or those completing teacher preparation programs.

In another report, EPI found that the teacher pay gap has hit a record high—public school teachers were paid 21.4 percent less than similar workers last year. This wage "penalty" has a huge impact on entire communities, as it keeps highly qualified teachers away from the profession. "To promote children's success in school, schools must retain credentialed teachers and ensure that teaching remains an attractive career option for college-bound students," the report states. "Pay is an important component of retention and recruitment." Read the reports at www.epi.org/research/education.

—THE AFT COMMUNICATIONS DEPARTMENT

Editor's Farewell

What an honor it has been to serve as editor of the AFT's *American Educator* for 25 issues! These past six years have reaffirmed my belief in union activism, the powerful connections between research and practice, and the many forces that can and should inform policy. It has been a privilege to work with such amazing educators, scholars, and union leaders in providing actionable research and a vehicle through which stories of the teaching profession could be told.

It has also been a privilege to work with the top-notch *American Educator* team, and with our colleagues across the organization, all of whom help make the magazine happen each quarter. As I head off on new adventures, I wish them and the entire AFT continued success in supporting our nation's public schools and the hundreds of thousands of outstanding educators within them.

With tremendous gratitude,

Amy Hightower

@ahtower



Supporting Students with Adverse Childhood Experiences

How Educators and Schools Can Help



BY DAVID MURPHEY AND VANESSA SACKS

Adverse childhood experiences (typically referred to as ACEs) are potentially traumatic experiences and events, ranging from abuse and neglect to parental incarceration.* A growing body of research has made it increasingly apparent that ACEs are a critical public health issue that can have negative, lasting effects on health and well-being in childhood or later in life.¹ However, more important than exposure to any specific event of this type is the accumulation of multiple adversities during childhood, which is associated with especially deleterious effects on development.²

One mechanism responsible for the effects of ACEs—toxic levels of stress—can be substantially buffered by stable and supportive relationships with caregivers. Schools and educators can also play a critical role by promoting these kinds of

caring relationships, as well as social and emotional skills, that support healthy youth development for all students; removing exclusionary and punitive disciplinary practices; and supporting the physical and mental health needs of students.³

Prevalence of Adverse Childhood Experiences

There is growing interest in understanding the prevalence of these adverse experiences across different communities in the United States, as well as their implications for families, schools, and other child-serving institutions. A recent Child Trends research brief, *The Prevalence of Adverse Childhood Experiences, Nationally, by State, and by Race/Ethnicity*, from which this article is drawn, used data from the 2016 National Survey of Children's Health (NSCH) to estimate the prevalence of one or more selected adversities among children from birth through age 17, as reported by a parent or guardian. The study

David Murphey is a research fellow at Child Trends and the director of the Child Trends DataBank. Vanessa Sacks is a research scientist in youth development at Child Trends. This article is adapted with permission from their research brief The Prevalence of Adverse Childhood Experiences, Nationally, by State, and by Race/Ethnicity (Child Trends, February 20, 2018), available at <https://bit.ly/2IJRCpO>.

*Some researchers limit the term “adverse childhood experiences” to the 10 items included in the original 1998 study that defined the term, while others use screening tools that have included a larger or smaller number of ACEs. Our work is primarily with the items included in the 2016 National Survey of Children's Health, which are similar, but not identical, to those in the original ACEs study. In this article, we use “ACEs,” “adverse childhood experiences,” and “childhood adversities” interchangeably.

team estimated the national and state-level prevalence of eight specific adversities: parental divorce or separation, death of a parent, parental incarceration, witnessing violence in the home, experiencing or witnessing violence in the neighborhood, economic hardship, living with individuals with substance use problems, and living with someone who is mentally ill. Our findings include:

- Among the adversities included in the survey, economic hardship and divorce or separation of parents or guardians are the most common adversities reported nationally and in all states.
- Just under half (45 percent) of children in the United States have experienced at least one adversity, which is similar to the rate of exposure found in a 2011–2012 survey.⁴ At the national level, about 1 in 10 children have experienced three or more ACEs. In five states—Arizona, Arkansas, Montana, New Mexico, and Ohio—as many as 1 in 7 children have experienced three or more ACEs.
- Children of different races and ethnicities do not experience adversities equally. Nationally, 61 percent of black children and 51 percent of Hispanic children have experienced at least one adversity, compared with 40 percent of white children and only 23 percent of Asian children. In every region of the United States, the prevalence of adversities is lowest among Asian children, and in most regions, the prevalence is highest among black children.

While these results show the prevalence of some adverse childhood experiences, they likely underestimate the problem, since other notable childhood adversities, such as homelessness, forced migration, and bullying or harassment, were not included in the survey. However, no single assessment tool can capture all potentially traumatic experiences.

Childhood Adversity, including ACEs, Can Have Profound Effects

Adversity can cause stress-laden reactions in children, including feelings of intense fear, terror, and helplessness. When activated repeatedly or over a prolonged period of time (especially in the absence of protective factors), toxic levels of stress hormones can interrupt normal physical and mental development and even change the brain's architecture. Childhood adversities have been linked to numerous negative outcomes in adulthood, and research has increasingly identified effects in childhood.⁵ Negative outcomes include some of society's most intractable (and, in many cases, worsening) health issues: alcoholism, drug abuse, depression, suicide, poor physical health, and obesity. There is also some evidence that exposure to adversity is linked to lower educational attainment, unemployment, and poverty.⁶ In childhood, children who have experienced multiple adversities are more likely to struggle in school and have emotional and behavioral challenges, including difficulties with paying attention and self-regulation.⁷ Nevertheless, not all children who experience one of these adverse events (or even more than one) are negatively affected; much depends on the context in which they occur—particularly the context of positive relationships.

Research has found that the risk for negative outcomes increases with the number of adversities; in other words, chil-

dren who have experienced multiple adversities are substantially more likely to be negatively affected than children who have experienced only one.⁸ A 1998 ACEs study found that adults who have experienced four or more ACEs have a particularly high risk for negative physical and mental health outcomes, including some of the leading causes of death in the United States.⁹ Subsequent studies have identified lower thresholds, ranging from one to three ACEs, as the tipping point at which risk increases greatly.¹⁰ Multiple factors likely account for individual variation in response to adversity, including contextual factors such as supportive adult relationships.

ACEs can have negative, lasting effects on health and well-being in childhood or later in life.



One of the most sobering findings regarding childhood adversities is preliminary evidence that their negative effects can be transmitted from one generation to the next.¹¹ Toxic stress experienced by women during pregnancy can negatively affect genetic “programming” during fetal development, which can contribute to a host of bad outcomes, sometimes much later in life.¹² Infants born to women who have experienced four or more childhood adversities are two to five times more likely to have poor physical and emotional health outcomes by 18 months, according to one recently published study.¹³

Responses to Trauma

The growing interest in understanding the effects of adversities has been accompanied by an increase in the development and application of trauma-informed care (TIC). TIC describes a variety of approaches that acknowledge the impact of trauma, recognize its symptoms, respond to its effects through appropriate practices and policies, and prevent further traumatization.¹⁴ TIC is increasingly used in systems and settings that serve young people and their families, including the child welfare system, early child care and education settings, healthcare settings, and

the juvenile justice system.¹⁵ For schools, the essential challenge is to go beyond using a trauma-informed approach to child-level services, and to intentionally develop and foster a universal, schoolwide strategy to create a trauma-informed climate.

How Schools Can Help

As our Child Trends colleagues have recently urged,¹⁶ schools should focus on promoting the kinds of caring, supportive relationships and social-emotional skills that underlie positive development for all children. And, for those children who have experienced trauma, schools should focus on fostering the kinds of positive relationships that can help these students recover and respond resiliently to future adversities. This approach is not about singling out students who have experienced adversity, but about shifting the culture, norms, and practices of an entire school to create a safe and supportive learning environment for all students. Three possible ways to start this shift are described below.

For schools, the challenge is to develop and foster a universal, schoolwide strategy to create a trauma-informed climate.



Strengthen interpersonal relationships and social and emotional skills.

Research indicates several protective factors that can prevent or ameliorate the negative effects of childhood adversities.¹⁷ A positive, supportive relationship with one or more adults is of primary importance.¹⁸ In addition to supportive relationships, a child's own intrapersonal skills can be a buffer to the effects of adverse experiences. Children who have experienced adversities but demonstrate adaptive behaviors, such as the ability to manage their emotions, are more likely to have positive outcomes.¹⁹ Children and adults alike can cultivate resilience—for example, through practicing self-care routines and strengthening key social and emotional skills such as empathy, self-regulation, and self-efficacy.²⁰

Support students' physical and mental health needs.

In addition, there is a critical need in schools for more support staff (for example, school social workers, nurses, and psychologists) with the training to serve the needs of students. In many communities, these services are lacking or inadequate, underscoring the importance of schools as a frontline setting for addressing trauma and other mental health concerns.²¹

Reduce practices that may cause traumatic stress or retraumatize students.

A key principle of trauma-informed care is to avoid practices that have the potential to cause, or reactivate, trauma. Our Child Trends colleagues recently addressed this risk: "State policies that allow or encourage exclusionary or punitive practices may restrict students' access to services and cause further trauma. For student behaviors that may reflect underlying unmet needs—such as bullying and truancy—punitive practices may be especially counterproductive. Policymakers should examine current policies for such provisions and consider how to support school communities in transitioning away from such practices."²²

Notably, we do *not* recommend that schools adopt universal or targeted screening for ACEs. A possible exception would be to include related items in anonymous schoolwide surveys to raise broad awareness of the prevalence of potentially traumatic experiences. At this point in our understanding of trauma, there are many more drawbacks to a screening-focused strategy than there are benefits. The limitations of current screening tools include a conception of adversity that is both overly narrow and imprecise, a neglect of children's strengths, and an inability to provide guidance on tailoring responses to a particular individual's symptoms and circumstances. In addition, many communities still lack the capacity to offer appropriate services to meet these needs.²³

How Policymakers Can Help Educators Create Supportive Learning Environments

Our Child Trends colleagues Kristen Harper and Deborah Temkin recommended a three-part strategy for trauma-informed education policy in a recent report, excerpted here:²⁴

Build a statewide initiative to create supportive learning environments. State policy should promote teaching and learning environments that integrate the goals of academic success, health, safety, and a positive school climate, and establish a process for school communities and state agencies to enact this vision.

Review and revise state policy. Existing state policies can either facilitate or run counter to efforts to create supportive learning environments. Policymakers should review initiatives regarding school safety and security to ensure they are consistent with trauma-informed principles.

Support locally based, school-driven initiatives to create supportive learning environments. School communities should have the resources required to engage in an inclusive process of exploring the community's needs, including schools' readiness to make changes in their culture and improve their capacity to meet the needs of all children.

Despite increasing attention and resources devoted to preventing adverse childhood experiences and building resilient individuals and communities, ACEs remain common in the United States: nearly half of all children nationally and in most states have experienced at least one ACE. Disturbingly, black and Hispanic children and youth in almost all regions of the country are more likely to experience ACEs than their white and Asian peers.

However, adverse experiences do not necessarily lead to toxic levels of stress; here, social support and other protective factors play critical buffering roles. The cultivation of supportive, protective conditions by parents and other adults, by children themselves, and by their broader communities provides an ambitious but essential public health agenda. Schools and educators play a critical role in that agenda, as well. All children should be able to learn in a supportive environment, within a school culture that promotes and supports the health and safety of students and adults. □

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Teaching in a Trauma-Sensitive Classroom

What Educators Can Do to Support Students



BY PATRICIA A. JENNINGS

The first step in providing support to children and teens exposed to trauma and adversity is helping them to feel safe at school and demonstrating alternative working models of relationships. By spending time in a supportive classroom, students can learn that school can be a safe place, and that teachers and peers can be caring, thoughtful people who are supportive and have their best interests at heart. Under these conditions, the school and the people in the school can serve as alternative attachment figures. This is not to say that teachers become their surrogate parents and that their peers become surrogate siblings. Teacher-student and student-peer relationships are different from family relationships, but they can serve a similar function by helping trauma-exposed kids develop new models of relationships and new models of the self in relation to others.

As human beings, the most important factor for our survival has been supportive relationships. We are strongly motivated to

be accepted as part of a community that recognizes our value and provides opportunities to contribute and receive. We evolved to be part of families and communities composed of individuals who care for one another. Without these bonds, human beings would not have survived or flourished as we have. However, today we are losing touch with these bonds. Trauma and adversity disrupt the development of attachment bonds that children need to develop their full potential. Our families and communities are fragmented. It's harder for children and teens to find alternative attachment figures to connect with, leaving many kids unmoored. There are growing numbers of children left without homes and caregivers due to the opioid crisis.¹ Furthermore, large numbers of refugee children and teens fleeing from severe hardship and war are entering our schools with special needs; many of them arrive unaccompanied by parents and require foster care.²

In this article, which is excerpted from my book *The Trauma-Sensitive Classroom: Building Resilience with Compassionate Teaching*, we'll explore how to build caring relationships with trauma-exposed students and how to help them build positive relationships with their peers. Admittedly, this is no easy task. Trauma-exposed students may interfere with classroom learning, which can be frustrating. Helping them can be particularly challenging because they may have difficulty trusting peers and adults, especially authority figures. They may be overly defensive, anticipating adult criticism, or defiant, as a way to assert control. Because trauma interferes with the development of relationship skills and emotion

*Patricia A. Jennings is an associate professor in the Curry School of Education and Human Development at the University of Virginia. A former preschool and elementary school teacher, her research and teaching focus on social and emotional learning and mindfulness in education. This article was excerpted from her book *The Trauma-Sensitive Classroom: Building Resilience with Compassionate Teaching* (W. W. Norton & Company). Reprinted by permission of the publisher. Copyright 2019 by Jennings.*

regulation, they often find themselves in conflict with peers, either victims or perpetrators of bullying. Educators also need to be aware of children who tend to dissociate and become invisible as a way to cope in social situations, leading to social isolation.

How Teachers Help Build Resilience

Clearly, traumatized students can behave in ways that may disrupt and interfere with teaching and learning. However, when we realize that their behavior—especially, lack of self-control—is a symptom of the trauma, we can begin to understand them and provide them with the support they need.

What can we, as their teachers, do? In 1998, two researchers of child development published a landmark review article of studies of children exposed to trauma and adversity.³ They wanted to better understand why so many children develop competency despite exposure to adverse conditions. They found three important factors associated with resilience among all children and teens, both those normally developing and those considered at risk. The factors are:

- A strong parent-child relationship, or a strong relationship with a surrogate caregiver who serves as a mentor if a parent is unavailable;
- Good cognitive skills, which are predictors of academic success and lead to prosocial behavior; and
- The ability to self-regulate emotions, attention, and behaviors.

While exposure to trauma and adversity can impair these three factors, bolstering them can help students become successful. This is why it is so important to help these children and teens acquire the underlying skills they need to function in school. Doing so will not only help them perform better academically, it will also help them heal from the effects of trauma and adversity.

Teachers and other school staff are well positioned to support these children and teens.* If the extended periods of time students spend in school take place in a safe, calm, and predictable learning environment, with adults and peers who show care and respect toward them, we can help them heal. We can recognize and focus on areas of strength and build upon them. We can partner with families to strengthen students' relationships with their caregivers and promote self-regulation skills so they can achieve their academic potential.

In order to be an effective teacher for these students, a *mind shift* is needed. When a student exhibits difficulties, the tendency is to ask, "What's wrong with him?" When you find yourself doing this, shift the question to: "What happened to him and how did he learn to adapt to it?" This will help you understand where he is coming from and how best to help him. One thing not to do is to ask him to explain himself by asking, "Why did you do that?" His behavior is likely as perplexing to him as it may be to you!

The Importance of Teacher Support

Years of research have shown that a connection with a sensitive teacher can shape the healthy working relationships children normally acquire in their relationships with loving and consistent caregivers, especially for students exposed to multiple risk factors.⁴ Social learning theory, which proposes that people learn from one



By spending time in a supportive classroom, students can learn that school can be a safe place.

another by observation, imitation, and modeling, has been applied to understanding how teachers' emotional support can have positive impacts on older students.⁵ Teachers become role models of healthy social and emotional behavior for teens to emulate. In this way, a teacher's social support can promote healthy emotional skills, healthy relationships, and motivation to learn.

Research has found three crucial dimensions of teacher-student relationships among elementary-aged students: *closeness*, *conflict*, and *dependency*.⁶ Closeness refers to the degree of positive emotion and warmth the teacher and student express to one another and is associated with positive academic and behavioral outcomes. Conflict refers to the expressions of negative emotion and lack of rapport between the teacher and student and is associated with poor academic and behavioral outcomes. Dependency refers to the extent the student clings to the teacher or demonstrates possessiveness, also associated with poor outcomes. Dependency has also been associated with attachment disorders and requires extra sensitivity from the teacher for the child to engage in meaningful learning activities.⁷

The critical dimensions of teacher-student relationships at the higher grades are *perceived support*, *utilization*, and *a sense of relatedness*.⁸ Perceived support is the students' perception that the teacher is sensitive to their needs and supportive. Utilization is reflected in the willingness of students to rely on the teacher for help. A sense of relatedness is reflected in the extent to which students feel successful in their bids for belonging and acceptance. All three are associated with desirable academic and behavioral outcomes in adolescence. Similar to healthy attachment relationships between children and parents, these relational dimensions between teachers and students give students a sense of security and the safety to explore and engage in learning, which can involve risks.

*For more on the importance of connecting with students, see "It's About Relationships" in the Winter 2015–2016 issue of *American Educator*, available at www.aft.org/ae/winter2015-2016/ashley.

A teacher's social support can promote healthy emotional skills, healthy relationships, and motivation to learn.

While there is evidence that children who enter school with insecure attachments have difficulty in their relationships with teachers, this is likely only true in cases where teachers are not highly sensitive. Researchers found that when teachers were highly sensitive, children with less secure attachments were not at risk for developing less close relationships with teachers.⁹ Unfortunately, exposure to a less sensitive teacher in the early years can lead to years of relationship problems with teachers, as the quality of teacher-student relationships seems to be fairly stable. In other words, if a child has a difficult relationship with his kindergarten teacher, he is more likely to continue to have difficult relationships with future teachers.¹⁰ This research points to the critical importance of the quality of teacher-student relationships in early childhood.

Responding to Students' Stress and Trauma

A Q&A with Barbara Outten



For 20 years, Barbara Outten taught third- and fourth-graders in East St. Louis School District 189 in Illinois. Now in her second year as an instructional coach, she is also an officer with her local union, the East St. Louis Federation of Teachers. In February 2018, she attended a three-day training, the Union Response to Students' Stress and Trauma, designed to instruct teachers, paraprofessionals, school support staff, social workers, coaches, principals, and others in how to build trauma-informed and responsive school communities. Developed by the AFT and the Illinois Federation of Teachers, this training was implemented across the district in collaboration with the East St. Louis Federation of Teachers and a community initiative called

East Side Aligned. * Below, Outten shares her experience with bringing this training to her colleagues at James Avant Elementary School this past school year.

—EDITORS

Q How did your district learn about this training?

A The Illinois Federation of Teachers presented it to our union. I knew right away it was something that would help our school district. So we took it to the district's administrators and convinced them that this was a training all our educators and staff members needed. We wanted everyone who comes in contact with our students to be trained.

After the district signed on, a labor-management team made up of three union members and an administrator was established for each school building. Each team would attend the training, and then team members would conduct trainings for their building.

Q What did the training entail?

A Because I attended the initial training last February to become a trainer myself, I was involved in rolling out the training both in our district and in my particular school. The first thing we did was to define trauma as a response to an experience that is so stressful that it

overwhelms a person's ability to cope. Then we discussed how trauma can manifest in students and possible long-term effects. We explained how trauma affects brain development in children and how it can result in physical and psychological health issues. We shared how it can prevent children from being able to form healthy relationships, and how it can impair their learning.

We emphasized that children who experience trauma are not damaged. They can heal from this. That healing starts with everyday gestures that we can make to celebrate them. Compliment them on a daily basis, if possible. Comfort them. Stay calm. Be present. Educators need to listen to children and show that we're really interested in them. And then we should try to inspire them. These are protective actions that can help offset the trauma they've experienced and how the trauma affects them.

Q Why is there a need for such training in your district?

A In East St. Louis, we have around 5,700 students enrolled in 10 public schools. We have a 73 percent graduation rate, a 17 percent mobility rate, and an 82 percent chronic absenteeism rate, which is the percentage of students who miss 10 percent or more of school days per year. Our district's chronic absenteeism rate is much higher than the state average of 17 percent. Roughly 83 percent of students come from low-income families, and 6 percent are homeless.

*For more on East Side Aligned, see www.eastsidealigned.org.

What Is Emotional Support?

An important predictor of positive teacher-student relationships is teachers' emotional supportiveness. What does this look like in the classroom and how can we cultivate it in our relationships with our students? Bob Pianta, dean of the Curry School of Education, where I work, was one of the first to study teacher-student relationships and interactions. He developed an observational measure called the Classroom Assessment Scoring System (CLASS), which is now a widely used and well-validated rating scale designed for applied research on teacher-student interactions.¹¹ This measure is organized according to three latent categories of teacher-student interactions: class organization, instructional support, and emotional support. Classroom organization focuses on interactions associated with classroom management. Instructional support focuses on

interactions that support academic instruction. In the box on page 17, I focus on the emotional support domain, which is composed of four dimensions: Positive Climate, Negative Climate, Teacher Sensitivity, and Regard for Student Perspectives. A classroom rated high on the domain of emotional support would score high on Positive Climate, Teacher Sensitivity, and Regard for Student Perspectives, and low on Negative Climate.

How Teachers Can Build Caring Relationships

As the teacher, you are the social leader of the classroom, and your students will follow your lead when it comes to relating to other students in the classroom. This is why it's very important to model the kinds of interpersonal interactions you want them to engage in. I spent 15 years supervising student teachers enrolled in a teacher education



Those kinds of positive home-school connections didn't happen before.

Many children come from single-parent homes. We have a large population of students who are being raised by grandparents. We have many students with an incarcerated parent. Some of our children have even witnessed violent crimes.

Such factors are considered adverse childhood experiences (for more on this, see the article on page 8). Because these experiences are traumatic, they can contribute to challenging behaviors in school. Those behaviors can make it difficult to teach lessons on a daily basis. As a teacher, it sometimes feels like you're putting out one fire, and then you turn around and another one is just starting. A teacher might say to herself, "If only I could just teach." Our school district needed training around trauma so that we could learn how to help our students and also teach our subject matter, without burning out from our work.

Speaking of burnout, another lesson from the training was on the importance of self-care. You have got to take care of yourself in order to do what we do here. The training included information about 50 different types of self-care, whether it's reading a book for a set number of minutes per day or walking your dog or doing yoga. The training highlighted not only the need to come up with your own plan for self-care, but also the importance

of finding somebody to hold you accountable for adhering to that plan.

As a result of the training, everyone in our district agreed to be part of a system we call Check and Connect. All students in our schools select an adult to call upon to help calm and assist them if they ever experience a meltdown or have some kind of outburst at school. Students can choose a classroom teacher, a paraprofessional, a custodian, anyone who works in the building. Classroom teachers have access to a list of adults each student has chosen so that they can contact them when necessary.

Once contacted, the adult might take the child for a walk to help him or her calm down from the trigger. This is a step that did not happen before. It's a change in mindset. When an outburst happens, our teachers are now recognizing that they haven't done anything wrong to make that child angry. And they're working on not taking any outburst personally. Instead, they're giving the child a chance to talk it out with an adult of his or her choice.

Now, every child has a dedicated adult in the school building to talk with when he or she needs help. Students know they can trust an adult in the building and tell that person what's bothering them and it will be OK.

Not all schools in our district have certified social workers. There isn't enough funding for that. But the state does allow schools to hire noncertified social workers who have completed a certain amount of coursework, and our school has one. He's very passionate about what he does, and he was a member of our train-the-trainers team.

Q What else is your school doing differently in terms of supporting students?

A Besides the Check and Connect system, classrooms engage in restorative circles. In these circles, teachers help students to resolve conflicts with peers and head off disruptive behavior. We're catching things before they happen because educators are taking the time to listen. Students are watching. They're seeing. And classroom referrals for behavior are way down from even just a year ago.

But teachers aren't just engaging with students and parents when something is wrong. The other day, a physical education teacher walked by and said, "Ms. Outten, you're going to be so proud of me." And I said, "Why? What's up?" And he said, "I called a parent today to say how great of a day a student was having."

Those kinds of positive home-school connections didn't happen before.

program. During this time, I learned much about how teachers' classroom behavior can build or impair relationships with their students. No teacher intentionally sets out to create negative relationships with students; it happens unintentionally. However, once a teacher and student have begun to engage in a coercive cycle of negative interactions, it becomes a model for the other students to follow.

Model Respectful Interactions

In one classroom I visited, Ms. Rohan was introducing her fifth-grade students to a new novel. As she gave them an overview of the author and the background of the story, she noticed that Joey was fiddling with a piece of paper on his desk. She became visibly annoyed and sharply told him to stop. It was obvious that there was already tension between the two of them, and I could see that Joey was not going to stop, primarily because she had called him out so publicly, and he was embarrassed. I was right: he kept fiddling, and Ms. Rohan became more frustrated. Finally, she went up to his desk, grabbed the piece of paper he was fiddling with, and threw it in the garbage.

This is an example of a power struggle. Ms. Rohan's relationship with Joey was already strained, and she was primed to overreact. What he was doing wasn't really a big deal, and when it started out, it wasn't an intentional attempt to disrupt class and make Ms. Rohan unhappy. But because of her preconceived idea, she assumed that his behavior was intentional, which increased her frustration and triggered her overreaction. When she told him to stop, she publicly shamed him, which made him want to dig in his heels to save face. She finally took the upper hand by grabbing

the paper on his desk and throwing it away.

If a student had grabbed a piece of paper from another student and thrown it away, what would we think? That she was a bully? That she was invading his space and taking something that didn't belong to her? When we act as if the rules don't apply to us, we send the message to students that *might makes right*; we are basically modeling bullying behavior. When students observe teachers treating a fellow student this way, two things can happen. First, the students learn that the fellow student doesn't deserve their respect. If the teacher doesn't respect him, why should they? They will begin to treat the student the same way as the teacher, possibly taking things, too, and being overly critical and judgmental of him. The second thing that happens is that the students learn not to trust the teacher, thinking, "If she does that to Joey, she might do it to me, too." Students who already feel less than safe feel frightened.

As you interact with your students, make sure you follow your own rules. Treat each student with respect and kindness. If you find yourself becoming annoyed, work to calm yourself down so that you don't unintentionally rupture a relationship and trigger a power struggle.

Cultivate Supportive Peer Relationships

Besides serving as a model of social behavior, teachers influence classroom social dynamics directly and indirectly. They can take actions to manage or change the social network patterns of their classrooms, or they can indirectly affect the network patterns through general teaching practices. New research has shown that teachers can affect a classroom's social status patterns, such as peer norms and status hierarchies, and social affiliation patterns, such as informal peer groups and friendships, which can dramatically affect the classroom climate.¹² In fact, just being more aware of the social networks can have a positive effect on your classroom. For example, peer norms against aggressive behavior are stronger when teachers' reports of their classroom peer networks are more accurate.¹³

You can tune in to your class as a social group by occasionally stepping back and mindfully observing during a time when your students have some choice about their social dynamics directly and indirectly. Imagine you are observing this group of students for the first time. How are they grouping themselves? Who's being victimized by whom? Who's left out? Who is leading the pack?

In a large longitudinal study of elementary classrooms, researchers examined peer networks and teachers' attunement with their classrooms' peer networks.¹⁴ They also asked the teachers what active measures they took to manage the friendships, aggression, and social hierarchies in their classrooms. The researchers classified these measures as follows: mitigating status extremes, supporting isolated children, managing aggression, and promoting positive behavior. Finally, they observed the teachers' classroom interactions and rated them using the CLASS measure described above.

They found that teachers who use "more active" strategies to manage friendships, aggression, and hierarchies have students who show "more positive" patterns in their social behavior and their academic adjustment across the school year. These effects were stronger if the teacher was also rated as "more responsive" and found to be "more attuned" to the social network dynamics of her or his classroom. Generally, teachers in this study reported working

As the teacher, you are the social leader of the classroom, and your students will follow your lead.



to reduce the status extremes in their classrooms by providing many alternatives for obtaining status, such as creating opportunities for low-status children to receive recognition, or by reducing the importance of status altogether. The more teachers reported taking active measures, the more their students reported feeling a stronger sense of peer community, higher levels of bonding with the school community, and enjoyment of learning by the end of the school year. One notable finding was that teachers who worked to support friendships, especially for children who seemed isolated, had students who reported a stronger sense of peer community. This research provides us with clear evidence that the active measures we take to improve classroom climate can be very effective and can support our trauma-exposed students. □



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The active measures we take to improve classroom climate can be very effective and can support our trauma-exposed students.

Understanding Emotional Support

Positive Climate reflects the strong emotional connection between the teacher and students and among students in the classroom, and the warmth, respect, and enjoyment communicated by verbal and nonverbal interactions. In a classroom rated high on Positive Climate, students appear comfortable to seek the physical proximity of the teacher, and the teacher and students share moments of positive emotions and show enjoyment of shared activities. Students are helpful to one another and engage in social conversation. The teacher and students express affection to one another through verbal and physical gestures and show respect through eye contact, warm and calm voices, respectful language, and cooperation.

Negative Climate, by contrast, reflects the general level of expressed negativity in the classroom and the frequency, quality, and intensity of teacher and peer negativity. In a classroom rated high on

Negative Climate, the teacher and students may appear irritable, angry, and aggressive. There is a tendency for the teacher to engage in punitive control strategies such as yelling, making threats, and issuing harsh punishments. The teacher and students may engage in sarcastic and disrespectful communication, including teasing and humiliation. In extreme cases, one may observe victimization, bullying, and physical punishment.

Teacher Sensitivity captures the teacher's awareness of and responsiveness to students' academic and emotional needs. In a classroom rated high on Teacher Sensitivity, one would observe a teacher who is proactive. She anticipates problems and plans accordingly and notices when students lack understanding or are having difficulty with an assignment. She recognizes and acknowledges the students' emotions and provides comfort and individual support when needed.

Students seek support when they need it and are willing to take risks in the learning process.

Regard for Student Perspectives reflects the degree to which the teacher-student interactions and classroom activities focus on students' needs, interests, motivations, and points of view and encourage student responsibility and autonomy. In a classroom rated high on Regard for Student Perspectives, the teacher shows flexibility, follows the students' lead, and incorporates students' ideas in her lessons. She supports student autonomy and independence by allowing some choice and giving students classroom responsibilities. She encourages student expression and elicits their ideas and perspectives. She allows freedom of movement in the classroom and allows students to save face when there's a conflict.

—P.A.J.

Trauma Care in Schools

Creating Safe Environments for Students with Adverse Childhood Experiences



BY EILEEN A. DOMBO AND
CHRISTINE ANLAUF SABATINO

Exposure to traumatic events in childhood and adolescence can have lasting negative social, emotional, and educational effects. For schools, or any environment that serves children, to be truly trauma-informed, they must address three crucial areas: safety, connection, and emotional and behavioral regulation. This article, which is excerpted from our book *Creating Trauma-Informed Schools: A Guide for School Social Workers and Educators*, will explore these three areas as the foundational pillars of a trauma-informed school environment.

Safety

At their core, all traumatic events are a violation of a sense of safety in the world and with others. People and places that are supposed to be attuned to the needs of children are often the ones that violate trust through abuse, neglect, and violence. Given that the caregiver-child relationship is the foundation on

which the child's senses of safety, competence, and self-containment are built, when this relationship is strife with traumatic events, those capacities are severely compromised.¹ Abusive parents and caregivers, violence in communities, and shootings in schools* are all too commonplace in American culture. The presence of traumatic stress has long-lasting negative impacts on children, and when severe and prolonged, it can be so toxic that it leads to neurological and biological health problems.²

What does safety look like? For children and adolescents, safety is felt through connections with people who have a calm and focused presence. They are attuned to the child's actions, words, and nonverbal communications and respect the child's boundaries and rights. Power and control are essential to safety in that the child is allowed to be in charge of himself or herself as much as is developmentally appropriate. When power is used to be punitive and demeaning, children do not feel safe. When seeking safety, children look for someone to be predictable and consistent. Following through on what they say they are going to do and avoiding chaotic and disorganized behaviors are essential to safety. All these require the person to stay calm, regulated, and focused when the child is dysregulated, out of control, or even aggressive. Some examples of safe and unsafe behaviors in a school setting are found in the box on page 20.

*Eileen A. Dombo is an associate professor in the National Catholic School of Social Service at the Catholic University of America, where Christine Anlauf Sabatino is the director of the Center for the Advancement of Children, Youth, and Families. This article is excerpted with permission from their book *Creating Trauma-Informed Schools: A Guide for School Social Workers and Educators* (Oxford University Press). Copyright 2019, Oxford University Press. All rights reserved.*

*The School Social Work Association of America has taken a stand to stop gun violence in schools. To read its position paper on the issue, visit https://docs.wixstatic.com/ugd/426a18_72b6376c6a9645d7ad256fe9fe4004f3.pdf.

Classrooms that feel safe to children are those that have clear expectations, well-defined routines, time for transition, choices whenever possible, and attuned teachers. Specific events in the classroom can serve as reminders of previous traumatic and therefore unsafe experiences. These current events *trigger* reminders of past events.³ Some examples of triggers in a classroom setting that can prompt a child to react from a place of traumatic stress and feeling unsafe are:

- Sensory reminders of the trauma—smells, sounds, or images that remind the child of a person, place, or time that is connected to a traumatic event.
- Touch—whether to focus the child with a gentle hand on the shoulder or a physical restraint of a child who is a danger to others. Touch that is unwanted or unexpected can be a trauma trigger.
- Fighting, arguing, or yelling, whether between children or between an adult and a child.

Some triggers can be managed by decreasing certain behaviors, such as yelling by the teacher or adult in charge, but others can be difficult to anticipate and manage because one cannot predict what a trigger might be for a specific child. For example, a child may have a traumatic stress reaction when triggered by the smell of an orange. Perhaps that child was abused by a caregiver who regularly ate oranges, and the smell of the orange being peeled reminds the child of that person and the abusive behavior.

A teacher would have no way of anticipating this, and the child may not even be aware that the smell of the orange is a trigger until that moment when the child is emotionally reactive, out of control, or dissociative. What teachers can do is be curious about what may have prompted the sudden change in that child and include a traumatic trigger as one of the possible explanations for the behavior. They also may pick up clues to triggering events by listening carefully to the way children discuss subjective experiences. There are signs about how a child primarily receives, interprets, and transmits sensory stimuli and expresses them in terms of sight (visual), sound (auditory), touch (kinesthetic), smell (olfactory), and taste (gustatory).⁴ Does a child use representational language that *pictures, hears, feels, whiffs, or flavors* an experience that may be helpful in recognizing how a child is triggered? Trauma-informed practices mean being compassionate and seeing behaviors and actions as attempts to express distress and seek safety.⁵ Current events provide ample evidence of how important it is to understand the impact of violence on child development and learning.

Connection

Children who have had traumatic experiences inflicted on them by adults learn that adults are not to be trusted. Children entering a new school or a new classroom will be careful around adults and will watch closely for indications that they need to protect themselves. This sense of hypervigilance and wariness will make it difficult for them to connect with adults in a school setting, but connection is essential for the development of safe, trauma-informed settings.⁶ Power imbalances also disrupt connection. In the classroom, teachers are in charge and make the rules, which can lead children to feel powerless. If a child has experienced an adult using his or her power to abuse others, this power imbalance will impair connection. It may also create a situation in which the

child seeks power and control to feel safe, which creates disconnection.⁷ In trauma-informed classrooms, teachers recognize this dynamic and strive to create corrective experiences with an adult who is associated with positive experiences. Trauma can be re-enacted in relationships with adults who react to the child's search for safety, power, and control with anger, punishment, suspicion, and distance.⁸

Adults can get drawn into a trauma re-enactment with a child who is testing them to learn how they respond. Often, this is not done purposefully but instead comes from a defensive, self-protective action when a child engages as he or she would with the abusive



Safety is felt through connections with people who have a calm and focused presence.

adult. In other words, in order to know what to expect and to confirm the child's suspicion that the adult is unsafe, the child may engage in a conflictual way. This can be done through behavior that is aggressive or unsafe, verbal assaults designed to hurt or bring about rejection, or mistreatment of another child in the classroom. This child will often be described as being "provocative" or "self-sabotaging," but it is important to not label but rather to wonder why. Why would this child behave this way? When this is seen as a traumatic reaction, a self-protection against vulnerability and being harmed yet again by an adult the child is supposed to trust, it makes sense. It is a survival behavior. When viewed in this manner, it can be helpful in not personalizing the behavior. When the adult does not respond as expected, then there is hope for safety.

In order to establish connection in school settings, it can be helpful to start off the school year by setting some ground rules for the classroom and asking each student to voice his or her own needs, either by creating a rule or agreeing with a rule made by a peer. Connecting with each student's basic need for safety and

respect is a good start. Connecting to children through their behavior is also a way to get to know them better.⁹ Instead of responding in anger or exasperation to a student who is "acting out," respond with curiosity. "I noticed that you threw your pen across the room when I corrected your spelling. I'm wondering if you noticed that too, and what you think that's about?" This neutral, curious, and concerned stance shows the child that you are not judging but want to connect.

Instead of responding in anger or exasperation to a student who is "acting out," respond with curiosity.

The school environment offers a major opportunity for children to develop positive experiences through new social interactions with adults and peers that are in contrast to their own negative models of relationships. Classroom connections for maltreated students are developed through consistent adult responses, helping them to understand the rules that create predictable responses. Peer interactions are the hallmark of school-aged children's experiences, and classrooms are a natural context within which to help traumatized children make classmate connections.¹⁰

Routines and rituals are an antidote to life's chaos and disruptions, allowing children to shift out of survival mode and into new patterns of adaptive social interactions with adults.¹¹ Rather than reacting to overt behaviors, teachers can model for students how to react to the emotional message behind a student's behavior. They can help children learn strategies for negotiating interpersonal problems in a supportive context. Research shows that children flourish when they can predict environmental responses and understand the rules for interactions.¹²

Emotional and Behavioral Regulation

The ability to appropriately manage feelings, emotions, and impulses is impaired by childhood trauma.¹³ Emotional arousal can feel scary to a child who has not been taught how to self-



Safe and Unsafe Teaching Behaviors

Safe	Unsafe
Focusing on the student when he or she speaks to you.	Not making eye contact, looking away, or looking at something else when the student is speaking.
Speaking in a moderate tone and volume.	Yelling, muttering under your breath, or whispering to someone else.
Exhibiting consistent behavior so your students know what to expect.	Displaying erratic, unpredictable behavior.
Establishing clear rules that apply to everyone, with consequences appropriate to the violation.	Creating no rules, rules that are randomly and unevenly applied, or punitive measures that do not match the violation.
Having the ability to control your emotions and stay calm.	Having big emotional swings or outbursts, or being easily startled or rattled.
Communicating boundaries and respecting others' boundaries.	Setting no boundaries and not following others' boundaries.
Providing attention and care to all students.	Favoring some students and giving preferential treatment.
Allowing students to leave the classroom to go to a safe place if they feel triggered and unsafe.	Using threats to make students think they are unable to leave the classroom for any reason.
Practicing unconditional, positive regard for all students.	Judging some students for their behavior or taking student behavior personally.
Providing honesty and transparency.	Lying, obfuscating, or refusing to explain reasons for actions.
Holding all students to high standards and expecting them to work to their ability.	Ignoring or not expecting much from students because of their "problems."

—E.A.D. and C.A.S.



soothe and calm down. Imagine you are hearing an alarm go off in your house; it's loud, dark, and scary, and you cannot find where the noise is coming from to turn it off. In these cases, children need to be taught how to identify and appropriately express emotions. They also require guidance on how to tolerate distressing emotions and calm themselves through self-soothing and self-regulation.¹⁴ In a classroom setting, adults can help children with this essential task in a number of ways:

1. Label the emotions you see the children demonstrating. This will give them the language they are lacking. Much like learning the Spanish word for "door," the children are learning the language of emotions. By labeling the emotion as it is being expressed, the children learn what is going on inside themselves and also are calmed by that knowledge.¹⁵
2. Place emotion faces with the identifying labels around the classroom. This will help children develop the language of emotion as they learn what sad, happy, confused, and so forth look like.
3. Provide an opportunity to reflect on the behavior and feelings exhibited.¹⁶ Depending on the developmental stage, this can take the form of a drawing, poem, or essay. Having a quiet space in the school where the child can go to reflect and process what happened and why is a wonderful way to achieve this task.
4. Work with the child to calm down. This is also known as co-regulation and is particularly useful with adolescents.¹⁷ By focusing on the emotions, not the behaviors, and staying calm while speaking in a soothing voice, the adult identifies the distress and invites the child into a reflective, problem-solving encounter.
5. Add calming and mindfulness exercises for all the kids in the class during times of transition. This can be particularly good after a test or a fire/safety drill. These exercises can include listening to breathing, lying on the floor with a stuffed animal on

the stomach and watching it move up and down,¹⁸ mindfully eating a small piece of chocolate or candy while focusing on the taste and sensations in their bodies, or other activities.

6. Use times of emotional dysregulation and distress as an opportunity to educate children about how their brain works and how we can all get overwhelmed by feelings. Neuroscientist Dan Siegel has great videos on his website that explain how the brain works (www.drdansiegel.com). These videos can be shown to individual kids or to the entire class to help them better understand some of the brain science behind behaviors.

Through establishing safety, connection, and emotional and behavioral regulation in schools, the three pillars create the foundation of a trauma-informed structure for children in schools. The more children feel safe and connected to the adults around them, the more they can learn to understand and regulate their emotions and behaviors. This creates a safe learning environment for all children. □

Endnotes

1. J. Arvidson et al., "Treatment of Complex Trauma in Young Children: Developmental and Cultural Considerations in Application of the ARC Intervention Model," *Journal of Child & Adolescent Trauma* 4 (2011): 34–51.
2. M. Walkley and T. L. Cox, "Building Trauma-Informed Schools and Communities," *Children & Schools* 35, no. 2 (2013): 123–126.

(Continued on page 43)

Children flourish when they can predict environmental responses and understand the rules for interactions.



Understanding the Needs of Children with Incarcerated Parents

What Educators Should Know



BY KRISTIN TURNEY

The incarceration rate in the United States has increased dramatically in the past half century. In 1970, about 100 out of every 100,000 individuals in the United States were confined in prison. Today, that number is five times as large, with nearly 500 out of every 100,000 individuals confined in prison. This rate increase is especially striking among poorly educated men of color living in disadvantaged neighborhoods.¹

It is perhaps not surprising that confinement in jail or prison has deleterious consequences for currently and formerly incarcerated adults. Incarcerated individuals generally arrive in jail or prison with relatively low educational skills and low educational attainment. And, though there are sometimes ways to engage in educational opportunities while incarcerated (e.g., via training programs or opportunities to receive a GED), individuals experience barriers to engaging in additional educational opportunities upon their release.² In an era where incarceration is both common and unequally distributed across the population, concentrated among some of the most vulnerable citizens, incarceration has likely exacerbated race/ethnic and social class inequalities in

educational attainment among American adults.³

But incarceration is not only consequential for those who churn through the criminal justice system. It also affects those in their family and personal lives, including parents, romantic partners, and sons and daughters. The majority of incarcerated individuals have at least one child.⁴ Therefore, the increase in the U.S. incarceration rate means that an increasing number of children—and a substantial number of children—experience the incarceration of a parent at some point in childhood or adolescence. Research shows that parental incarceration negatively affects children's educational outcomes and opportunities.

Children's Exposure to Parental Incarceration

Currently, an estimated 2.7 million children—or 1 in 28 of those under the age of 18—have a biological mother or father who is incarcerated in a local jail, state prison, or federal prison. And, given that most individuals are eventually released from confinement, back to their families and communities, even more children will experience the incarceration of a parent over the course of their lives. Data from the Fragile Families and Child Wellbeing Study—a longitudinal study of nearly 5,000 U.S. children born in urban areas around the turn of the century—show that, by age 9, about one-third of children experience the incarceration of a biological father and about one-tenth of children experience the incarceration of a biological mother.⁵

Kristin Turney is an associate professor in the Department of Sociology at the University of California, Irvine, and a senior fellow of the University of California Criminal Justice and Health Consortium.

Importantly, not all children are equally likely to experience parental incarceration. Parental incarceration is more common among children of color (compared with white children), among children of parents with low educational attainment (compared with children of parents with high educational attainment), and among children living in disadvantaged neighborhoods (compared with children living in advantaged neighborhoods).

Consider differences in exposure to parental incarceration by race and ethnicity. Recent estimates suggest that by age 17, 24 percent of black children, 11 percent of Hispanic children, and 4 percent of white children will experience parental incarceration. Among children of parents without a high school diploma, 62 percent of black children are exposed to parental incarceration, compared with 17 percent of Hispanic children and 15 percent of white children. There is also regional variation in children's risks of exposure to parental incarceration, with children living in the South having the highest risks of having an incarcerated parent and children living in the Northeast having the lowest risks.⁶ Geographic variation also depends on race and ethnicity, as black children have the highest cumulative risk in the Midwest, Northeast, and two southern states, and Hispanic children have the highest cumulative risk in the West and Northeast.

Therefore, especially in urban and socioeconomically disadvantaged neighborhoods, parental incarceration represents an important obstacle for a large number of children and for the educational institutions they attend. This article discusses what teachers, principals, and counselors, who regularly interact with children of incarcerated or formerly incarcerated parents, should know about this particular student population.

Why Might Parental Incarceration Impede Children's Educational Opportunities and Outcomes?

Parental incarceration is an adverse childhood experience, defined as a potentially stressful or traumatic event that has lasting consequences for children's health and well-being. It often occurs in conjunction with other stressors, such as parental divorce, family economic instability, and household substance abuse. But the stressor of parental incarceration is also unique from other types of family stressors or adverse childhood experiences.

Parental incarceration involves the removal of a mother or father from the child's household or daily routine. This removal is a traumatic incident for many children and may be accompanied by other corresponding traumatic experiences, such as witnessing the arrest of a parent or encountering uncertainty regarding how long the parent will remain away from the household. This removal is often stigmatizing, too, and can produce isolation and shame that impedes social support systems, interactions with peers and teachers, and children's educational opportunities and outcomes.

In the wake of parental incarceration, families experience a variety of challenges, including economic insecurity, altered household and relationship dynamics and routines, changes in parenting, and changes in parental health. Families also face economic insecurity. Given that most incarcerated parents, prior to their incarceration, were working, incarceration leads to an immediate decline in family income, an increase in material hardship, and an increased reliance on public assistance.⁷

Parental incarceration generates additional economic costs for families, including those associated with the incarceration, such as making bail, paying for legal representation, or paying fines and fees; costs associated with maintaining contact with the incarcerated parent, such as paying for telephone calls or putting money on his or her "books"; and indirect costs associated with the parent's incarceration, such as taking time off of work to attend court dates or needing to pay for the child care necessary in the parent's absence.⁸ Therefore, children with an incarcerated mother or father face new economic challenges that stem directly from the incarceration of their parent, in addition to the economic challenges that may have led up to the arrest.

Research documents that children with incarcerated parents do have difficulties progressing through school.

Parental incarceration can alter household and relationship dynamics quite dramatically. It is common for children's living arrangements to change as a result of parental incarceration, either via children moving to a different household entirely or via children experiencing a change in their household composition. The degree to which these dynamics change may depend on the gender of the incarcerated parent. Children of incarcerated fathers often (but not always) remain living with their mothers. Children of incarcerated mothers sometimes remain living with their fathers but more commonly spend time living with extended family members and are sometimes placed in the foster care system.

Relationship dynamics between children's parents can also change. Maintaining romantic relationships while one partner is behind bars is challenging, given the far distance of prisons to some communities, the often inflexible visiting schedules, and the high cost of making long-distance phone calls from prison. It may be equally difficult to preserve romantic relationships after release. For example, research shows that the incarceration experience may encourage men to engage in violent behavior.⁹ These altered relationship dynamics mean that children of incarcerated parents experience household instability.

Parental incarceration may also lead to disengaged, ineffective parenting by mothers and fathers. During incarceration, parents are unable to engage with their children, potentially leading to long-term reductions in parental involvement with children growing accustomed to—and suffering from—this separation. In this regard, incarceration is comparable to other prolonged absences (such as military deployment), as the extended time away from children may inhibit future parental involvement even in the absence of other changes in family life. Also, stressors associated with parental incarceration may cause the nonincarcerated parent to change his or her parenting behaviors.¹⁰

Finally, parental incarceration may affect children's educational outcomes via its consequences for parental health. Incarceration is linked to reduced physical and mental health among the incarcerated. And the period a current or former romantic partner is incarcerated may be one fraught with anxiety, uncertainty, and loneliness for the partner left behind.

How Teachers and Schools Can Assist Children with Incarcerated Parents

A growing body of research documents that children with incarcerated parents, and particularly children with incarcerated fathers, do have difficulties progressing through school. Negative consequences extend across many types of academic outcomes, including a large number of school absences, inappropriate special education placement, grade retention, suspension, expulsion, low test scores, and measures of educational attainment, such as high school graduation and college attendance.¹¹ The

consequences also extend to children's behavioral problems. For example, children of incarcerated fathers, compared with their counterparts without incarcerated fathers, have greater internalizing problems (e.g., experiencing feelings of worthlessness or inferiority), externalizing problems (e.g., engaging in fights and bullying), and attention problems (e.g., engaging in impulsive behavior and being unable to sit still).¹² Most existing research focuses on the consequences of paternal incarceration, as opposed to maternal incarceration or the more general parental incarceration, likely because more children are affected by the incarceration of a father than the incarceration of a mother. That said, both paternal and maternal incarceration may have deleterious consequences for children's educational outcomes.

Given the link between parental incarceration and children's well-being, as well as the fact that children spend a substantial amount of time in school, schools provide a unique opportunity to intervene and aid children who have currently or formerly incarcerated parents. The existing research has a number of implications for how educational institutions may best serve children of incarcerated parents.

First, it may be useful to increase awareness among teachers and administrators about the prevalence of parental incarceration. They should also know that many children who experience parental incarceration also experience additional adversities in childhood, such as family instability, parental substance abuse, and violence. Knowing that parental incarceration is relatively common, especially among vulnerable children who often experience other challenges that can impair their well-being, may help alleviate some of the stigma that children of incarcerated parents encounter.

Knowing that parental incarceration is relatively common may help alleviate some of the stigma.

Teaching Students with Incarcerated Parents

BY TRACEY SHOLLENBERGER LLOYD

A few weeks shy of my 22nd birthday, I stepped into my own classroom for the first time in Baltimore. Like many teachers, my background was different from that of my students. I am white and had grown up in small, solidly working-class Pennsylvania towns, whereas my students, both black and white, were living in some of the most highly distressed urban neighborhoods in the country. Despite our differences, I shared with many of my students a personal history of early self-sufficiency—and a sense of humor—that opened up opportunities for connection. Not all of my

students were a fan of my Spanish class, of course, but I prided myself on showing them that I cared and on building relationships whenever I could.

In my high school classroom, I experienced many common obstacles to developing strong relationships with students. I had large class sizes, more IEPs (individualized education plans) than seemed reasonable, and a steep learning curve with classroom management. I hadn't yet internalized the extent to which great teaching is *leadership*, and I sometimes struggled to strike a balance between caring and captaining the ship. Between lesson planning, grading, advising students in extracurricular activities, calling parents and caregivers, cleaning desks, and washing chalkboards, there was not enough time in a week, or even in a school year, to get to know all of my students' stories and build the open, supportive relationship with each student I would have wanted.

Nonetheless, I developed enough rapport with many students and their families to learn about their lives beneath the surface level. Often, they shared positive things like career goals, hidden talents, poetry or song lyrics, and dreams for the future. I also heard about difficult relationships, financial struggles, housing instability, and health concerns. At times, my students discussed their experiences with police and upcoming court dates. Sometimes I learned about parents' situations. One student told me, after missing weeks of class, that his father's health had deteriorated, and he had assumed responsibility for his father's transportation and care. Other students shared with me worries about their parents' mental health or substance use. Once a student I was certain disliked me, or at least loathed my class, arrived with a giant smile: she told me that she had just received a letter from her father in prison and learned that she would see him soon.

Tracey Shollenberger Lloyd is a senior research associate in the Urban Institute's Justice Policy Center, where she coleads the center's Policing and Crime Prevention research team. Previously, she was a high school Spanish and mathematics teacher in Baltimore and a member of the Baltimore Teachers Union.

Second, it may be useful to increase awareness about the specific needs and challenges of children of incarcerated parents. As noted above, these children often experience a (conscious or unconscious) social stigma from their teachers and classmates that stems directly from their parents' incarceration. Educational institutions can help in reducing this stigma.

In particular, educators can play a critical role. They can avoid singling out or drawing attention to children with incarcerated parents, and they can refrain from judging, blaming, or labeling such children. This approach may directly benefit children by reinforcing the idea that parental incarceration is not their fault. It also signals to these children's classmates that they too should refrain from judging, blaming, or labeling children of incarcerated parents. In general, educators can also avoid saying negative things about those involved in the criminal justice system, as such statements could reinforce stereotypes and stigma surrounding parental incarceration.

Children of incarcerated parents may also have other specific needs that schools can address.* Schools may consider providing resources to children of incarcerated parents, such as developmentally appropriate books and pamphlets about parental incarceration. Teachers and librarians can encourage all students to read these books (as opposed to only children who have an incarcerated parent), which would help children of incarcerated parents but also foster awareness of this experience among their classmates (without singling out individual children).

Other resources include the Sesame Street in Communities program (www.sesamestreetincommunities.org/topics/incarceration). This website provides videos, activities, and

*Community schools in particular are well positioned to support children of incarcerated parents as well as other disadvantaged youth. For more on these schools, which partner with food banks, social service agencies, higher education institutions, health clinics, businesses, and youth organizations, see "Where It All Comes Together" in the Fall 2015 issue of *American Educator*, available at www.aft.org/ae/fall2015/blank_villarreal.



Since leaving the classroom in 2005, I have worked as a researcher studying issues affecting children and families, with a focus on criminal justice. I arrived at the Urban Institute in Washington, D.C., in the midst of pioneering work on prisoner reentry, motivated by the dual insights that the United States has a spectacularly high incarceration rate and that almost everyone who is sent to prison is eventually released. Back then, the effects of incarceration on individuals, families, and communities outlined in the article on page 22 were only beginning to be documented. People questioned, but had not yet assembled empirical evidence on, the extent to which incarcerating unprecedented numbers of people affected the families and communities they left behind.

As a researcher, my challenge was to determine whether incarceration caused children's and families' trajectories to

worsen, or simply occurred alongside a range of other issues. Reflecting on my classroom experience, I wasn't sure. Although the goal of research is often to isolate the size of the effect of one condition on another, reality is messier. Plenty of students whose parents are not incarcerated are also growing up in challenging circumstances, including situations where their parents are absent due to addiction issues, military service, or long-distance jobs. I could not have correctly guessed which of my students had a parent or caregiver in prison and which did not. I didn't always know, and it would have been inappropriate to ask. But when a student, caregiver, or staff member told me that a child I was teaching had an incarcerated parent, I also don't remember feeling surprised.

What I didn't realize at the time was that, in the context I was teaching in, incarceration was devastatingly common. Not only does the United States incarcerate

people at an unusually high rate, but the experience of being incarcerated is unequally distributed. The predominantly white towns I grew up in had people in jails and prisons, of course, but that experience was far from common. By contrast, a *majority* of black men without a high school degree experience incarceration by their early 30s.¹ Few people in my students' neighborhoods would have been untouched by this reality.

Research on children with incarcerated parents has yielded several insights that educators may find useful. In this article, I highlight three such insights. First, although having an incarcerated father is the more common experience, having an incarcerated mother is especially likely to disrupt children's everyday lives. Among people in prison who have minor children, mothers are more likely than fathers to have been living with their children and to have been their children's primary caregiver at the time of their arrest.²

articles specifically designed for children of incarcerated parents, all of which may provide teachers guidance on how to talk to children about incarceration. Teachers can also help children maintain contact with incarcerated parents, perhaps by providing them time and encouragement to create artwork or write letters, as maintaining these relationships may benefit children's well-being.

Children of incarcerated parents may also need emotional support and counseling in school. In addition to collaborating with mental health professionals, such as psychologists and guidance counselors, classroom teachers can help children work through their feelings about parental incarceration and/or connect these students to additional supports.

Schools may also be able to help address the needs of families more generally by making sure that all parents can participate in

school activities, such as parent-teacher conferences, volunteering, and visiting the classroom. Of course, incarcerated parents experience real barriers to their involvement in children's schools and home lives, but teachers can encourage children to talk with their incarcerated parent (via the telephone or in-person visits) about their homework and schooling activities.

The caregivers of these children may also experience difficulties that impede their involvement in children's schools, such as increased family and economic responsibilities. For example, they may have had to increase the number of hours they work to make ends meet, or they may have difficulty finding child care that would allow them to attend school activities, such as open houses or parent-teacher conferences. Teachers can take steps to facilitate parental involvement among all families by keeping all parents informed about opportunities to get involved in their children's



And whereas most children with incarcerated fathers live with their mothers, children with incarcerated mothers have much more varied living arrangements. Grandparents provide care most often, but many arrangements

stress when they return home.

Second, maintaining contact with an incarcerated parent is associated with positive outcomes for children as well as parents, but doing so can be challenging. As

Nonetheless, many incarcerated parents are eager to stay in touch with their children and seize opportunities to do so when they are available. They may also jump back into doing so when they are released.

Third, parental incarceration is just one piece of a larger concern: students are growing up in an era of an expanded criminal justice system that shapes not only their day-to-day lives, but also their perceptions of what is possible for their futures. For middle and high school boys in particular, frequent interactions with police and firsthand knowledge of men in their families and communities who have faced legal troubles or been to prison can cast a shadow over them as they enter adolescence. Research has focused on parental incarceration—for good reason—but even children whose parents are not incarcerated may have brothers, cousins, uncles, or other relatives who are. They may also know people in the community who are not in jail or prison but are on probation or parole or facing new charges.

In perhaps the most powerful exchange I had with a student while teaching, a young

It's important to educate all students on the prevalence of incarceration and what it means for families and communities.

exist, including living with other relatives or friends or in foster care.

Because of this, children may find even a mother's return home stressful, as caregiving arrangements are renegotiated. Incarcerated women are also especially likely to cycle in and out of jail quickly and to have histories of mental health challenges and substance abuse. Some children feel responsible for helping to keep their parents safe and may worry and experience

the article on page 22 explains, correctional facilities are often located far from home, and the costs and logistics of travel can make visiting difficult. Phone calls can also be expensive. For children who do visit their parents in prison, correctional facilities' visitation protocols can be intrusive and traumatic. If relationships are strained, children's current caregivers may not want to facilitate communication between their children and an incarcerated parent.

education. And, for parents who do not participate, it is important that teachers not assume that parents do not want to be involved. Instead, these parents may lack the child care or transportation that would make it easier for them to do so. Research increasingly shows that individuals with criminal records avoid community institutions such as schools because of fear that their criminal record will be discovered by the school. School administrators may consider, when appropriate, taking steps to assure parents that they welcome participation among all parents, including those with criminal records.¹³

Promising Programs

Relatively little is known about existing school-based programs that may help children of incarcerated parents. And even less research exists on if and how these programs improve student outcomes. Although more research would be helpful, two existing programs appear promising.

One such program is POPS (Pain of the Prison System) the Club,* which may be a model for how to design and deliver services to children affected by parental incarceration. The program began in Venice High School in Los Angeles and has since expanded to seven other high schools in the Los Angeles area, as well as to high schools in an additional four states. POPS gives students the opportunity to come together to share how they have been affected by parental incarceration. The program operates during the school day, usually during lunch, and gives students who may be experiencing the

stigma and shame of having a loved one in jail or prison a space to be open about their struggles and successes. POPS enables students to engage in three types of creative expression:

1. Self-expression, which gives students the opportunity to share their experiences through writing, drawing, photography, and performance;

Teachers can encourage children to talk with their incarcerated parent about their homework and schooling activities.

2. Self-healing, which gives students the opportunity to participate in mindfulness activities; and
3. Community engagement, which allows students to listen to and engage with outside speakers (for example, those who have been touched by the incarceration of a loved one).

In addition to the weekly meetings during the school day, this program also publishes students' literary works on its website. Most students who participate in POPS have experienced the incarceration of a loved one, such as a parent or sibling, and

*For more about POPS the Club, see www.popstheclub.com.

man in my class who was quiet and brilliant, and commanded universal respect from his peers, stopped into my classroom after school one day and sat down at a desk. In tears, he shared that his older brother had recently been incarcerated. He told me that he was feeling pressure to take up drug sales to replace his brother's income and keep his family afloat. His sadness was palpable. As he was grieving the loss of his brother—with whom he had shared a room and his daily life—he was facing new challenges brought about by his brother's absence. Fifteen years later, I can't remember exactly what I said to him. I am sure that I conveyed my care and concern for his well-being. Beyond that, what did I say? What *should* I have said or done? What *would* I do now?

Today, I think about returning to the classroom often. If I were to teach again, all that I've learned about parental incarceration—and criminal justice more generally—would inform my teaching practice. In addition to becoming familiar with the statistics on parental incarceration, there are several things I believe teachers and other school staff members can do to better

meet the needs of students with incarcerated parents.

In communities where incarceration is relatively rare, developing knowledge and sensitivity about the issue of incarceration among all students should be prioritized. In these settings, it's important to educate all students on the prevalence of incarceration and what it means for families and communities. Prohibiting jokes about prison and taking care to avoid language and examples that stigmatize are also practices teachers should engage in. And assigning readings that explore the scope of the U.S. criminal justice system can also help students understand the issue. If a student, caregiver, counselor, administrator, or other staff member discloses to you that a student has a parent in jail or prison, take care to ask how much the student knows about the situation (as caregivers sometimes choose to withhold information to protect children) and be certain to protect that student's privacy.

In communities where incarceration is common, recognize the extent of the problem, be mindful of challenging dynamics when engaging with students' families, and consider spearheading

schoolwide efforts to meet the needs of children with incarcerated loved ones. Recognize that many students already have firsthand knowledge of this topic. Understand that the removal or return of a parent or loved one from prison might not be an isolated event, but one in a series spanning long before and after their time in your classroom. Be mindful of potentially challenging relationship dynamics between incarcerated parents and current caregivers.

At times, these relationships are fraught, and it is important to be respectful of all parties. Incorporate opportunities for connection with incarcerated parents into daily curricula. Suggest that students prepare written assignments and artwork with incarcerated loved ones in mind. Discuss with caregivers the feasibility and appropriateness of mailing these items from school. Consider offering resources or clubs targeted toward students who have been affected by prison, including support groups, counseling, and extracurricular activities providing opportunities to process experiences through poetry, writing, arts, and journal writing. Framing these efforts broadly—i.e., as suitable for anyone who

some have experienced their own contact with the criminal justice system.

Like most other school-based programs designed to serve children of incarcerated parents, POPS has not been rigorously evaluated. However, participants of the program say their engagement has given them a space to highlight their challenges and successes. This program also likely reduces stigma among students affected by the criminal justice system and increases the sense of community among them.

Children who have caring adults in their lives are likely to be resilient in the face of challenges such as parental incarceration.

Another program, called Amachi, is run through Big Brothers Big Sisters of America.* This mentoring program provides guidance and support to children of incarcerated parents by pairing them with a mentor who spends time with them once a week. Amachi is based on the premise that children who have caring adults in their lives are likely to be resilient in the face of challenges such as parental incarceration. Though no rigorous evaluations of the Amachi program exist, some evaluations of Big Brothers Big Sisters find that pairing children with a mentor can have positive educational and behavioral outcomes for children.

Both POPS and Amachi provide concrete ways that schools can support children of incarcerated parents. Some schools may be uniquely positioned to begin similar school-based clubs that can go a long way toward reducing the social stigma of parental incarceration while also providing necessary emotional support. But if the development of such a program is not feasible, teachers and administrators can still work to alleviate the stigma, trauma, and strain experienced by children of incarcerated parents. □

(Endnotes on page 43)

*For more about the Amachi program, see www.bbbs.org/amachi.



has an incarcerated loved one or worries about this possibility—may allow for greater participation and connection among students.

In all school types, recognize that many parents are eager to be involved in their children's lives both while they are incarcerated and once they are released. Do what you can to facilitate these connections and meet parents where they are. Do not assume that absences from parent nights and other functions are voluntary. Besides work conflicts and transportation issues, parental incarceration may be an additional reason some parents in your school are not in attendance. If you are in a leadership position, explore innovative ways to include incarcerated parents in education and consider formal partnerships with departments of corrections. For example, it may be possible to facilitate parent-teacher

conferences with incarcerated parents by video, as is currently being done in the state of Washington.³ And investigate whether there are programs or service providers in your community serving families affected by incarceration, where you can refer students and caregivers for additional support.

Research on children with incarcerated parents has increasingly made clear that parental incarceration does cause children's outcomes to worsen independent of other challenges that may have existed in their lives beforehand. For students who do experience the incarceration of a parent, having access to teachers who share their experiences and who can relate to them can help.

Ideally, teachers and school staff members would have all the time they need to build strong, open relationships with students to engage in conversations

around these issues. But in the world we live in now—with millions of individuals and families touched by prison, and with teachers in many communities less likely than students to have experienced parental incarceration—there is still a lot we can do to provide the supportive, inclusive school communities children with incarcerated loved ones need.*

Endnotes

1. B. Pettit and B. Western, "Mass Imprisonment and the Life Course: Race and Class Inequality in U.S. Incarceration," *American Sociological Review* 69 (April 2004): 151–169.
2. L. E. Glaze and L. M. Maruschak, *Parents in Prison and Their Minor Children*, Bureau of Justice Statistics, August 2008.
3. Washington State Department of Corrections, "Parent/Teacher Conferences," accessed 2019, www.doc.wa.gov/family/conferences.htm.

*For additional resources and tips for educators, see www.youth.gov/youth-topics/children-of-incarcerated-parents.

Countering Childhood Adversity

As the research in this issue of *American Educator* makes clear, adverse childhood experiences literally change the brain and negatively impact students' abilities to learn. This same research also demonstrates the undeniable power we have as educators to help counter the effects.

While we cannot control much in children's home lives, there is reason for hope. Our students spend a significant amount of time with us in school. From the moment they step foot on school grounds, we have the opportunity to nurture, build up, and even heal our youth who need the most from us.

Even if you don't teach many students who regularly experience adversity at home, it is important to remember that neglect, abuse, and household dysfunction affect all demographics. Chances are there are students suffering in our classrooms, even if we are unaware of the situation at home.

And while this topic may feel overwhelming, Share My Lesson has you covered. Let's explore a few of the amazing resources that can help combat the impact of trauma on children's development.

Provide a Safe, Nurturing Environment

How nurturing is your classroom? Are students encouraged to take risks and learn from mistakes? Is teasing tolerated or immediately addressed as unacceptable? In the blog post "Make Your Classroom a Safe Place for Students," Share My Lesson contributing author Julia Thompson shares quick tips on making our classrooms safer.

Once we establish safe classrooms, we can take steps to ensure all students' voices are valued and heard. Check out Amber Chandler's blog post "Be Seen. Be Heard. Be Known: Mentoring Students to Use Their Voices." Asking students to contribute in class can counter the effects of neglect. Let's make sure each child feels he or she is a valued and contributing member of our schools.

We can help students navigate difficult situations with resources from an entire collection dedicated to "Helping Children Cope with Traumatic Events." One such resource is "Healing Gestures," demonstrating precise ways to reach out to students and counter the impact of trauma.

Bring on the Joy

There is reason to believe in the old adage that laughter can cure many ailments. How joyful is your classroom? How often do you all let out big belly laughs together? A webinar called "Let's Have Fun" shows positive ways to build social and emotional learning into literacy lessons.

Another resource, "Building a Joyful Learning Environment," includes tips and a self-reflection tool to help us consider areas that could be improved, such as using the physical space of our rooms to support learning and positive classroom culture.

Increase Order and Predictability

We can do a lot with routines and structures in our schools to counter the effects of the pain and distress our children may

face outside of school. While we want to increase joy, which can include the element of surprise, we also want students to know what to expect from their daily schedules.

For the brain that has experienced trauma, daily rituals and predictable patterns in schedules can be powerful ways to assure and calm heightened nervous systems. Our "Classroom Management and Teaching Strategies" mega collection contains more than 600 lessons and other resources for taking your classroom environment to the next level. Topics include bullying prevention, internet safety, restorative discipline practices, and more! There is also a whole collection of webinars on building a healthy school climate, so be sure to share this with your administrators, paraprofessionals, and other essential support staff at your school.

Finally, explore our partner profiles and pages for more free resources. The American Psychological Association, for example, has shared more than 20 lesson plans and articles that help teachers use the power of science and psychology to improve learning and well-being in schools.

The resources here are excellent for *all* students, even those unaffected by trauma. All people need connection, safety, play, and predictability to learn well and to thrive. We hope you find tools here that empower you to continue your great work with our children. If you have additional ideas or requests, please reach out to us at content@sharemylesson.com.

—THE SHARE MY LESSON TEAM

Recommended Resources

Make Your Classroom a Safe Place for Students
<http://go.aft.org/ae219sml1>

Be Seen. Be Heard. Be Known: Mentoring Students to Use Their Voices
<http://go.aft.org/ae219sml2>

Helping Children Cope with Traumatic Events
<http://go.aft.org/ae219sml3>

Changing Minds Now: Healing Gestures
<http://go.aft.org/ae219sml4>

Let's Have Fun: Ways to Integrate Social-Emotional Learning into Your Literacy Lessons
<http://go.aft.org/ae219sml5>

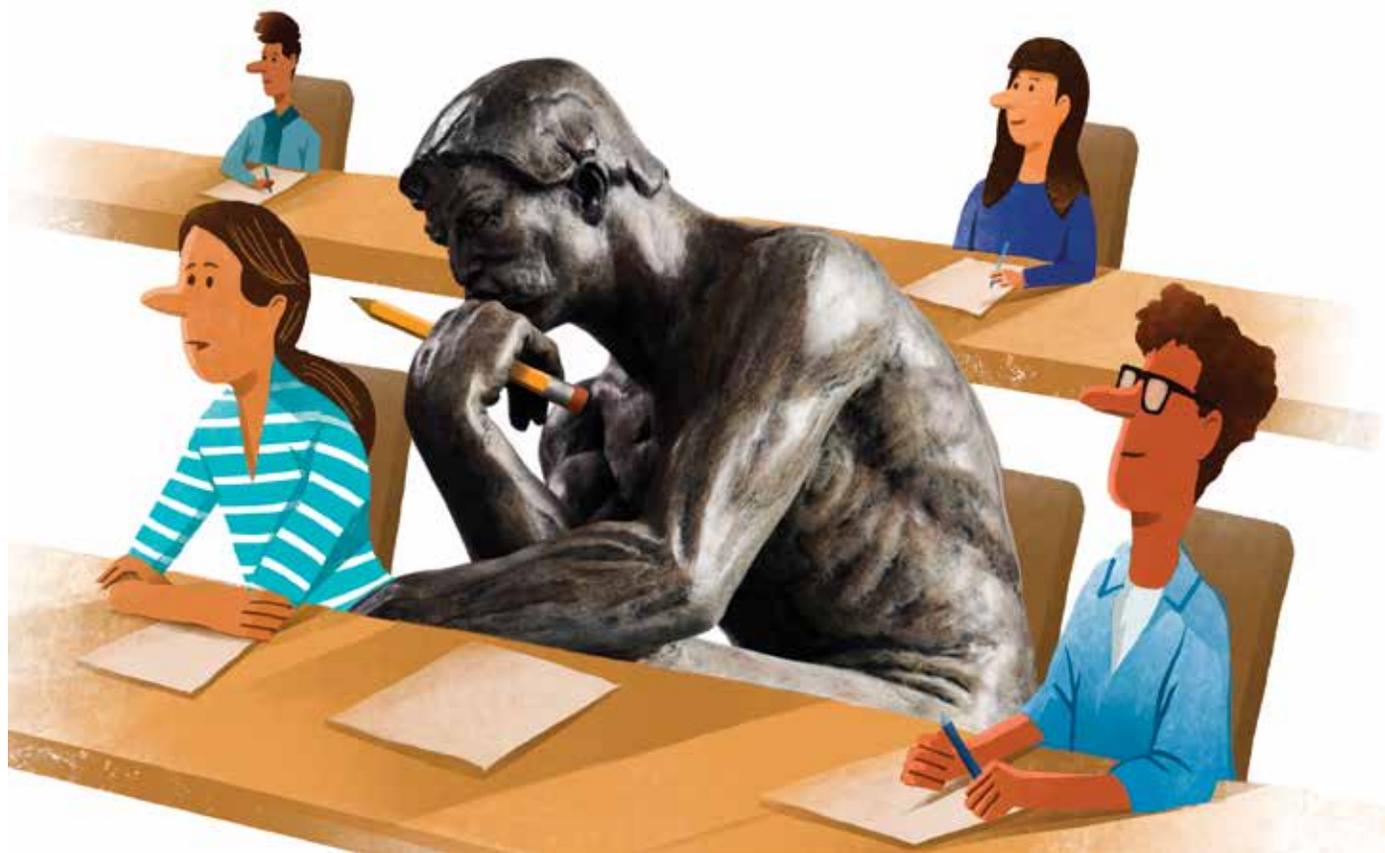
Building a Joyful Learning Environment
<http://go.aft.org/ae219sml6>

Classroom Management and Teaching Strategies
<http://go.aft.org/ae219sml7>

American Psychological Association
<http://go.aft.org/ae219sml8>



Should Teachers Know the Basic Science of How Children Learn?



How does the mind work—and especially how does it learn? Teachers’ instructional decisions are based on a mix of theories learned in teacher education, trial and error, craft knowledge, and gut instinct. Such knowledge often serves us well, but is there anything sturdier to rely on?

Cognitive science is an interdisciplinary field of researchers from psychology, neuroscience, linguistics, philosophy, computer science, and anthropology who seek to understand the mind. In this regular American Educator column, we consider findings from this field that are strong and clear enough to merit classroom application.

Daniel T. Willingham is a professor of cognitive psychology at the University of Virginia. He is the author of When Can You Trust the Experts? How to Tell Good Science from Bad in Education and Why Don’t Students Like School? His most recent book is The Reading Mind: A Cognitive Approach to Understanding How the Mind Reads. For his articles on education, go to www.danielwillingham.com. Readers can pose questions to “Ask the Cognitive Scientist” by sending an email to ae@aft.org. Future columns will try to address readers’ questions.

BY DANIEL T. WILLINGHAM

Question: Is it useful for teachers to know the basic science of how children learn? I thought it was, but a professor in my teacher education program disagreed; what teachers need to know, she said, are research-based findings about what works in classrooms. She thought there’s not much point in learning abstract science that doesn’t directly apply to classrooms.

Answer: There’s no doubt that research bearing directly on classroom practice is crucial. But I respectfully disagree with your professor and maintain that it’s useful for educators also to know the basic science around children’s cognition, emotion, and motivation, because beliefs about what children are like inevitably influence your practice. Everyone has such beliefs; the purpose of learning the science would be to broaden and deepen that knowledge, and to disabuse you of any misconceptions you might have. Still, not everything of concern to scientists is valuable to educators.

Scientific knowledge can influence educational practice in more than one way. Sometimes the applications are overt, as when scientific descriptions of how children learn offer new ideas for instructional methods. For example, researchers have described the learning benefits of spacing out practice,¹ and some educators have sought to incorporate that finding into their classrooms.

Science can also influence education through the use of scientific methods to evaluate the effectiveness of different educational practices. Scientists have a lot of experience designing experiments and can offer useful techniques to help decide whether, for example, two reading programs differ in how much they motivate children to read independently.

Both types of applications are overt and self-conscious. They are what researchers usually call “applied science.” That contrasts with “basic science,” research that is conducted not with the aim of improving education, but with the aim of providing a scientific description of the world. In this case, the basic science of concern tells us about how children learn, their emotional lives, and what motivates them. It’s a scientific view of what kids are like and how they develop. That basic scientific knowledge is the third avenue through which science can influence educational practice.

An educator’s practice is, of course, influenced by her beliefs about what children are like. Teachers try to tune their practice to what they believe to be children’s nature, in the perfectly reasonable belief that teaching will be more successful if it accounts for the way children learn. These beliefs influence not only planning but also teachers’ in-the-moment reactions and responses when something unexpected happens in the classroom. Furthermore, beliefs influence our receptiveness to new ideas.² When a vendor offers a new product, for example, or an administrator suggests a new classroom practice, teachers evaluate it in light of their beliefs about children.

Scientific findings provide one (but obviously not the only) source of information contributing to educators’ beliefs about the nature of children. Researchers and practitioners have written about the scientific backing of these beliefs, typically when they think there’s widespread misinformation about the scientific credibility of some finding. For example, a number of articles have appeared in the last 10 years pointing out the frail scientific basis for learning styles.^{3*}

Here I want to make a different point: *some statements concerning children’s learning are perfectly sound scientifically but should not influence educational decisions.* That includes some statements that seem like they ought to have a direct bearing on classrooms. In this article, I will describe three types of statements scientists make, only one of which ought to influence teaching practice. Even that type of statement, we’ll see, can be misapplied.

Three Types of Scientific Statements

To appreciate these three types of scientific statements and how they differ, we need a brief introduction to the scientific method. Again, we’re not talking about applied science, which sets a goal of *changing* something (in this case, improving education). Rather, we’re talking about the method of basic science, which sets the goal

of *describing* something (in this case, how children think and learn, what motivates them, how they experience emotions, and so on). This research is mostly conducted by scientists who don’t think about education at all.

Basic science operates in a four-step cycle, as shown in Figure 1 on page 32. First, a scientist gathers observations about the world. Next, the scientist attempts to summarize the observations with a small set of general statements—a theory. In the third step, the theory is used to generate predictions about phenomena that have not yet been observed. In the final step, the scientist conducts experiments to test the prediction. The result of the test constitutes a new observation about the world, and the cycle continues.

Not everything of concern to scientists is valuable to educators.

Consider psychologist Jean Piaget. He famously observed his own children at play to glean insights into their thinking.⁴ Based on those observations, he developed his theory of cognitive development, proposing that children move through a sequence of four stages, characterized by (among other things) increasing ability to use abstract thought. To test predictions of the theory, Piaget conducted experiments by asking children to perform carefully devised tasks. For example, in one task, children were to solve problems with a balance scale, using weights with differing characteristics.⁵

This brief summary of the scientific method illustrates two types of statements that are important to our purposes. First, there are observations of the world—for example, observing that children between 2 and 6 years old typically fail to understand that liquid does not change volume when it is poured into a differently shaped vessel (see Figure 2 on page 32).

Psychologists are especially interested in observations that they see consistently, even if children vary in background and age, and even if they complete different tasks in different contexts. For example, the observation that task performance improves with practice seems so universally observed, we assume it must reflect a very deep truth about the nature of learning. I’ll call that type of observation an *empirical generalization*, and I will argue it’s especially useful to educators.

The second type of statement is theoretical. *Theoretical statements* are much more abstract and general than empirical observations. They are meant to summarize many existing empirical generalizations and can be used to predict what ought to happen in novel situations. For example, one feature of the second stage of development in Piaget’s theory of cognitive development is *centration*; children focus on just one characteristic of a complex situation. Centration captures the observation about liquid and volume: children conclude that a narrow vessel holds more liquid because they focus on just one feature of the liquid—its height in the vessel.

*For more on learning styles, see “Does Tailoring Instruction to ‘Learning Styles’ Help Students Learn?” in the Summer 2018 issue of *American Educator*, available at www.aft.org/ae/summer2018/willingham.

Scientists make a third type of statement—epistemic—that’s not captured in Figure 1, and indeed scientists only occasionally explicitly make this type of statement. Scientists inevitably make assumptions about the nature of whatever is under study. Piaget made assumptions about the nature of knowledge: What does it mean for the child to know something? Should we just say, as Piaget did, that the child has a “belief” about the amount of liquid in a vessel? Or perhaps we’re starting off wrong by assuming that we can talk about what the child knows independent of the social context in which the child does his thinking? Or perhaps we’d be better off creating a theory of brain states rather than of beliefs; after all, isn’t what we’re calling a belief really a product of the brain? Or maybe it’s a bad idea to talk about beliefs or brain states, given that we can’t adequately measure either one. Maybe we should focus on what the child *does* instead.

You can see that unless you make some assumptions, it’s impossible to create a theory or even to describe what you think you observe. Assumptions shape how you describe what you observe and what you think a theory ought to look like. In the case of the psychology of thought, these are *epistemic assumptions*, statements about the nature of thought and knowledge.

The distinctions among these three types of statements scientists make—empirical generalizations, theoretical statements, and epistemic assumptions—may sound a little esoteric, but they are important to educators. In considering whether scientific findings should influence their practice, they (appropriately) ask whether the science is sound, because sometimes it’s not. For example, many practitioners have been told for years that there is scientific proof that younger students can multitask effectively, but that’s not actually the case.⁶

The point of this article is that scientists make lots of statements that are scientifically sound, but even if the statement is scientifically sound, it’s not always useful to educators. Recognizing the distinctions among empirical observations, theoretical statements, and epistemic assumptions is crucial to understanding when and how scientific statements may be useful.

Empirical Generalizations

I suggest that empirical generalizations have the greatest potential to be useful to educators. These are observations of how children think or feel in particular circumstances that are consistent across tasks, age, contexts, and subject matter. Their power comes from the fact that they tell us *what most kids are like most of the time*. Although it’s natural for educators to be interested in how children differ (so as to be sure to meet the needs of each child), children actually have much in common.⁷ The basic architecture of the mind is not wildly different from child to child, and we can identify some of the consistencies regarding how atten-

Empirical generalizations tell us what most kids are like most of the time.

tion is deployed, how learning operates, and so on. Indeed, over the years, these “Ask the Cognitive Scientist” columns in *American Educator* have emphasized such consistencies and what they might imply for the classroom (see the table on page 33).

Empirical generalizations like those in the table allow educators to predict how children will likely respond in a particular situation, and use that information to shape their practice. That said, this application is not always straightforward.

Empirical generalizations don’t offer an infallible guide for what to do. There are two ways they might be mistakenly understood as prescriptive. First, empirical observations could be seen as laws that must not be violated. For example, research shows that when

Figure 1: The Four-Step Process of Scientific Investigation

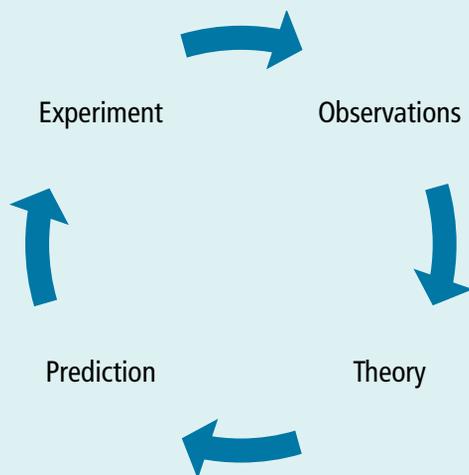
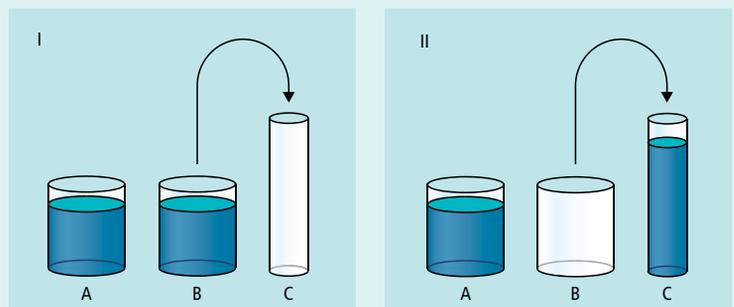


Figure 2: Conservation of Liquid Task



In Piaget’s conservation of liquid task, a child is shown two identical vessels (A and B), each containing the same amount of colored water, which the child readily affirms. Then the water from one vessel is poured into a taller, narrower vessel (C), and the child is asked whether the amount of water in the two vessels is still the same. Children between the ages of 2 and 6 usually say the taller, narrower vessel contains more liquid.

people are rewarded for a behavior, they may engage in the behavior to earn the reward, but their motivation may actually decrease once the rewards are discontinued.⁸ Yet, that shouldn't be taken to mean that rewards are *never* useful or appropriate. A teacher may recognize the risk of a tangible reward and nevertheless decide it's the right classroom decision for other reasons. For example, you may offer a small reward to prompt a decidedly nonreader to give a book a try, in the hopes that the student will be surprised by how much he or she likes the book after all.⁹ Empirical generalizations usually apply to *one aspect* of a complex situation, but educators must consider all aspects of the situation.

Second, many empirical generalizations concern student thought, not teaching behavior, and the way to prompt that student thought may not be obvious. Consider this empirical gener-



“Ask the Cognitive Scientist” Columns Highlighting Empirical Generalizations and Their Applications

American Educator Issue	Empirical Generalization	Application
Summer 2002	Memory is longer lasting when study is spaced out over time, rather than bunched together.	Teachers can revisit taught material to provide spaced practice.
Winter 2002–2003	Early learning is inflexible and transfers poorly to new contexts.	Set realistic expectations for transfer in early learning and plan for extended practice for knowledge that you expect to transfer broadly.
Summer 2003	Students remember what they think about.	Every lesson should be viewed through this lens: “I know what I hope students will think about during this lesson. Is that what they are actually likely to think about?”
Winter 2003–2004	That something seems familiar merely means you’ve seen it before, but students can mistakenly believe that familiarity means the content is committed to memory.	Students should be taught to test themselves to assess whether they know something.
Winter 2005–2006	Praise is meant to motivate, but there are many ways praise can backfire.	Praise should be sincere, earned, noncontrolling, and focused on the process rather than outcomes.
Spring 2006	Reading comprehension, problem solving, and other high-level thinking skills depend on subject-matter knowledge.	Knowledge learning is cumulative and so should start early in schooling.
Winter 2006–2007	Instruction in reading comprehension strategies boosts reading comprehension, but practice of the strategies does not bring added benefit.	Reading comprehension strategies should be taught, but with no more than perhaps 10 lessons.
Summer 2008	Cognitive development does not occur in discrete stages.	If a child is not cognitively ready to take on particular work, it’s not because she has not yet reached the right developmental stage. It’s because she doesn’t have the background knowledge to make sense of the work.
Winter 2012–2013	Sleep is important for learning, and U.S. teenagers do not get enough sleep, in part because of hormonal changes associated with puberty.	Changes to their surroundings and their habits can make teenagers less dependent on hormonal cues that it’s time to sleep and more dependent on environmental cues.
Summer 2016	Grit—passion for long-term goals and the stamina to pursue them—is associated with success.	Because an important part of grit is passion, teachers or parents can’t choose what a child will be gritty about. Researchers are just starting to explore ways to encourage grit.
Summer 2018	There’s no evidence that students learn best according to their preferred learning style.	Parents who advocate for teaching to their child’s preferred learning style should gently be informed of the lack of evidence for this theory.



Research since Piaget's death indicates that development does not proceed in stages. That prediction was wrong.

alization: memory is more enduring when students think about the meaning of the content and relate it to things they already know.¹⁰ Fine, but what are you supposed to do to prompt this sort of mental activity in students? One possibility is to set tasks for students (e.g., answering questions or making comparisons) that can only be completed if they think about meaning. This sort of teaching is often called “active learning,” because students are, it appears, more actively engaged in the learning process, in contrast to when they simply listen to a lecture.

But it's a mistake to equate activity we can see with mental activity. Students may be engaged in a hands-on activity that is rather mindless—for example, executing the steps listed in a biology lab without really thinking about them. And they may think deeply about the content of a carefully put together lecture, even if they appear to be merely sitting. This example offers another illustration of the possible misinterpretation of empirical generalizations. Sometimes they are generalizations of how students react to specific things teachers do, but other times they are generalizations about the consequences of particular mental activity on the part of the student. The two should not be confused.

Theoretical Statements

Theoretical statements would seem to be invaluable for practitioners. The purpose of a theory is to integrate and coordinate observations. So if, as I suggested in the previous section, empirical generalizations are valuable to educators, statements from theories *should* be still better: each summarizes many empirical generalizations.

That would be true if the purpose of a theory were indeed to integrate and coordinate empirical generalizations. That's the way a practitioner would develop a theory of children's learning, but

that's not the purpose to which scientists develop theories. As shown in Figure 1, a key purpose of theories in the scientific process is to generate new predictions. Those predictions will be tested in experiments that thereby create new observations, which are used to refine theories. So it's not enough for a theory to integrate and coordinate *existing* empirical generalizations. For a scientist, a theory must offer predictions of new, yet-to-be-verified observations. If it doesn't, science doesn't move forward.

The fact that theories go beyond existing data has a couple of implications that make them counterproductive for practitioners to use.* First, it is inevitable that some novel predictions derived from a theory will be wrong. As I mentioned earlier, Piaget proposed a comprehensive and highly influential stage theory of cognitive development. Developmental stage theories hold that children's thinking doesn't change gradually but rather is stable for long periods of time and then rapidly reorganizes, which is the shift from one stage to another.

An educator seeking to put Piaget's theory to use might draw the reasonable prediction that certain types of thought are simply beyond the cognitive abilities of some children—they haven't reached the right stage of development yet. Offering that work to the child would be developmentally inappropriate. But research since Piaget's death in 1980 indicates that development does not proceed in stages.¹¹ That prediction was wrong.

A second, related problem is that theories have a shelf life. Science operates in a cycle, as shown in Figure 1, and as we make more and more observations of the world, it becomes more and more likely that our current theories will fail to account for all of them. Every scientist accepts that our best theories should be viewed as contingent; even remarkably successful theories like Isaac Newton's law of universal gravitation eventually are shown to be wanting and are superseded.

Contemporary educational psychology textbooks often summarize influential theories like Piaget's theory of cognitive development, Erik Erikson's theory of personality development,¹² Lawrence Kohlberg's theory of moral development,¹³ and Lev Vygotsky's theory of learning.¹⁴ But all of these theories are decades old, and the textbooks that present them always include several pages of explanation regarding ways in which the theories are known to be inadequate.

So when an educator's practice is guided by the best-available scientific theory, that educator adopts some beliefs that will be proven wrong in time. The only questions are how many of the beliefs are wrong, and when will we know they are wrong. Empirical generalizations, in contrast, are not predictions but are summaries of things that scientists have observed. Theories will come and go, but the empirical generalizations that theories are meant to account for are much more likely to be seen as accurate decades later. For example, the last century has seen a lot of theories seeking to explain why practice helps memory, and few scientists are fully satisfied with any of them. But every scientist agrees that practice helps memory.

*Suppose a theory integrated and accounted for known empirical generalizations and didn't make any new predictions; would that be useful to educators? Indeed, I think it would, and I think researchers should do more to create such theories. I consider that possibility in my article “A Mental Model of the Learner: Teaching the Basic Science of Educational Psychology to Future Teachers,” published in *Mind, Brain, and Education* in 2017.

Epistemic Assumptions

Consider statements like “learning is social,” “everybody learns differently,” “knowledge is constructed,” and “learning is natural.” Each represents an assumption about the nature of learning or knowledge. These are not empirical generalizations or theoretical statements; they are more general, and they are not grounded in observations of the world—they are assumptions.

The generality of the statements is obvious when you consider the many ways they could play out in a theory. “Learning is social,” for example, might be taken to mean that our social environment provides learning opportunities—we can learn from our peers, and the characteristics of our peers determine what we learn. Or this statement might refer to something more profound, the assumption that our perception of the world is bound by our social group and our culture—what we learn depends on how we interpret our experiences, and that interpretation of events is shaped by our social environment. Or, it might imply an altogether different definition of learning. I may know very little about automobile repair, but if my wife does, then I have ready access to that knowledge. So don’t I, in a sense, “know” about automobile repair? Perhaps it’s a mistake to think of “knowledge” as residing solely in the mind of an individual. Knowledge may be accessible across social networks, and that should be recognized in our definition, and in our theories of knowledge and learning.

If a statement like “learning is social” can be interpreted in so many ways, does it really mean anything? Yes, but not much. It tells you that a theory of learning must have some social component, otherwise it would be missing something important. It doesn’t specify what that social component must be, however, and again, it’s an assumption and so is not proven. Epistemic assumptions are important because they do provide broad outlines to theory. For example, they dictate how knowledge will be defined in your theory, and they might prompt you to include some social component in it. Also, researchers often make, without reflection, the same assumptions that others do.¹⁵ For example, many early cognitive psychologists assumed that emotion didn’t have much to do with thinking, an assumption that, it later became clear, was wrong.¹⁶

Scientists ought to, at least on occasion, contemplate whether the epistemic assumptions they make are defensible. Practitioners needn’t do so, but they ought to be concerned that epistemic assumptions are confusable with empirical generalizations. “Learning is social” may sound similar to “kids learn best in social situations,” but now that we’re alert to the difference, we see that the first is an epistemic assumption (a statement about the nature of learning), whereas the second is an empirical generalization (a summary of many observations of what children actually do).

If you mistake “learning is social” for an empirical generalization, you’ll think children should learn in groups rather than on their own. If you mistake “everybody learns differently” for an empirical generalization, you might think that offering the same type of work to a group of children is never a good idea. If you mistake “learning is natural” for an empirical generalization, you might think that any reluctance of a child to learn must be the fault of the school, which has somehow thwarted her natural inclination to learn.

What Does This All Mean for Educators?

Let’s recap. I’ve argued that scientists’ work entails three types of

statements: observations of the world, theoretical statements, and epistemic assumptions. One particular type of observation, an empirical generalization, has potential value to practitioners. It describes some consistency in the cognitive, emotional, or motivational lives of children. Each is a small slice of “what kids are like.”

Groups of theoretical statements are meant to summarize a large number of observations, but they must do more; they must predict new aspects of what kids are like that have not yet been observed. Theoretical statements are not useful to practitioners exactly because they generate predictions that may or may not be true. The third type of statement is an epistemic assumption, which presupposes the nature of learning or knowledge. These statements are too general to provide guidance to practice, but they can mistakenly be misread as empirical generalizations.

A theory must offer predictions of new, yet-to-be-verified observations. If it doesn’t, science doesn’t move forward.



How might all this information affect your practice?

Examine your beliefs. This implication is rather obvious. I’ve argued that some beliefs, although potentially useful to scientists, will not apply to the classroom, so you want to be sure that you’re not applying beliefs in ways that don’t make sense. Yet analyzing our beliefs can be difficult. As the saying goes, it’s like asking a fish to analyze water. Still, we can identify a few signs that can help differentiate empirical generalizations, theoretical statements, and epistemic assumptions.

Starting with the easiest case, epistemic assumptions tend to be simple statements about the nature of learning or knowledge: knowledge is constructed, or learning is fun. Empirical generalizations usually describe how two things go together: rewards reduce intrinsic motivation, or visual imagery improves memory. Theoretical statements can sound similar to empirical generalizations

because they may describe how one thing influences another—for example, as children age, their thinking becomes less egocentric. Theoretical statements are usually more general than empirical generalizations, applying to a much broader variety of situations. And, of course, if there’s a name attached to the belief, that’s a sure tip-off: “Because Dewey thought so” is not a good reason to adopt or abandon a practice.

Lack of basic science doesn’t mean a practice is bad. Why do I encourage you to think through whether your beliefs about kids align with findings from basic science? Because I think classroom practices based on those beliefs are more likely to succeed. But a lack of evidence to support something means just that—there’s no evidence one way or another. It doesn’t mean there’s evidence that the practice is ineffective.

This issue has come up frequently when I talk with teachers about learning styles. When I claim that learning-styles theories don’t have scientific backing, teachers sometimes think that I’m criticizing the classroom practices they use that are inspired by learning styles. I’m criticizing the theory, not any specific practice. The classroom practice may be terrific, it just doesn’t get credibility from basic science.

Here’s an analogy. Let’s say a Virginia teacher loves New York City and often finds inspiration for lesson plans when she visits. She may think that those lessons tend to be especially engaging and deep for her students. But she would not think that other

teachers should capitalize on the special scientific status of New York City-inspired lessons. She would just think, “This is where I find my inspiration.” If learning-styles theories, or left and right brain theories, or astrology, or anything else inspires you, great. My point is that your confidence about the quality of such a lesson shouldn’t come from a belief that it aligns with how scientists think children learn. Your confidence should come from your professional judgement that the lessons are successful. How they were inspired doesn’t affect that one way or another.

Not every classroom practice needs to be mapped onto empirical generalizations. This is a corollary of the idea that it’s not a deal breaker if a practice is not aligned with scientific evidence of how children learn. You can’t base all your practices on scientific evidence. Scientists don’t know enough for educators to be able to do that, even if they wanted to.

Keep learning. One of the great challenges in being a practitioner is that basic science represents a moving target—researchers keep learning more! How can you keep up? One substantial problem is evaluating the quality of the resources you encounter on the web, in books, in professional development sessions, and so on. That’s a thorny problem I’ve written on at length.¹⁷ In the box below, I offer a list of resources on the basic science of children’s learning that I have found useful in the past. □

(Endnotes on page 43)

Resources on the Basic Science of Children’s Learning, Emotion, and Motivation

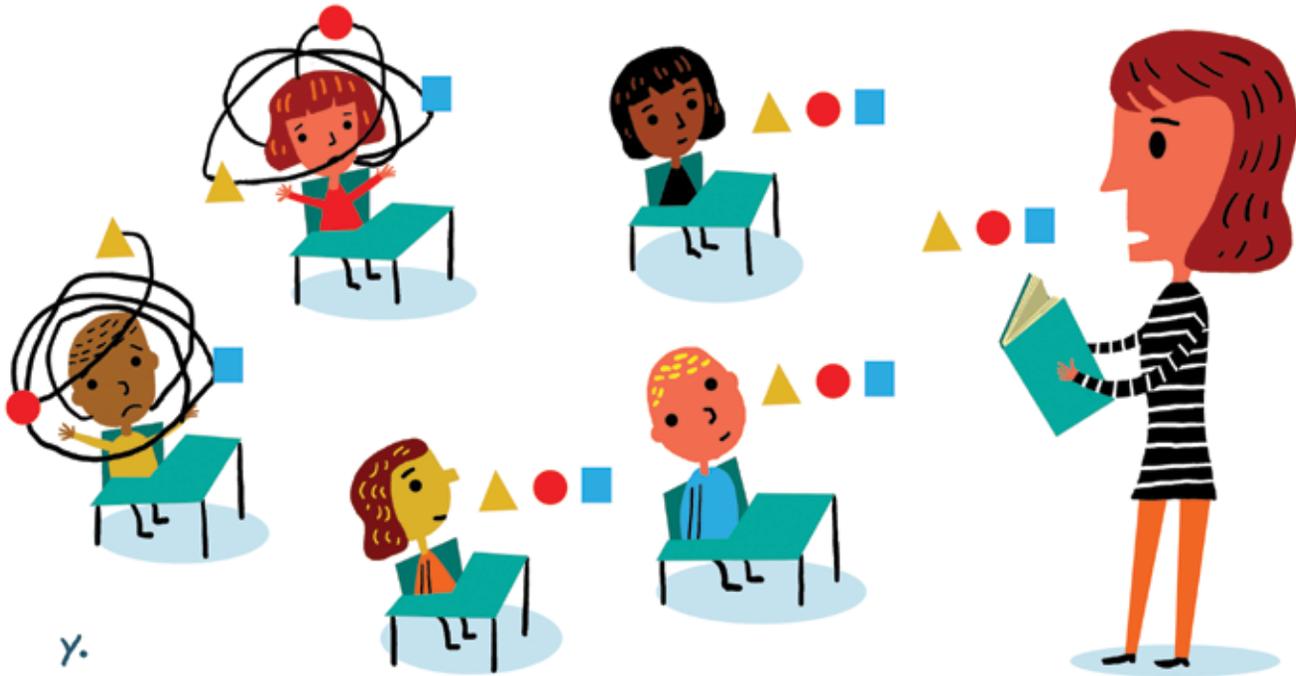
Here’s a list of resources I’ve found useful in helping teachers stay up to date on the science of children’s learning, emotion, and motivation. I also recommend participating in social media; Twitter is especially active with researchers and practitioners. *Disclosure: I have or have had working relationships with those marked with an asterisk.*

1. ResearchED*—an organization by and for practitioners, meant to bring education research to the public via low-cost conferences throughout the world, and now a magazine.
2. Learning & the Brain*—a U.S.-based organization that organizes conferences, usually on the East or West Coast, that always include high-profile scientists.
3. *Reading in the Brain: The New Science of How We Read*—a book by Stanislas Dehaene offering an introduction to the neuroscience underlying reading.
4. *Language at the Speed of Sight: How We Read, Why So Many Can’t, and What Can Be Done about It*—a book by Mark Seidenberg that summarizes reading research from a cognitive perspective.
5. *The Scientist in the Crib: What Early Learning Tells Us about the Mind*—a book by Alison Gopnik, Andrew Meltzoff, and Patricia Kuhl that summarizes what’s known about infant development.
6. *Behave: The Biology of Humans at Our Best and Worst*—a book by Robert Sapolsky that provides a sweeping view of human behavior, from neurotransmitters to culture influences.
7. *How People Learn: Brain, Mind, Experience, and School* and *How People Learn II: Learners, Contexts, and Cultures*—books written by a committee at the behest of the National Research Council, which you can read for free at <https://bit.ly/1EBASlf> and <https://bit.ly/2E6mzhA>.
8. *How the Mind Works*—20 years old now, this weighty yet breezy overview of cognition by Steven Pinker is still valuable.
9. *Thinking, Fast and Slow*—a scientific memoir from Nobel Prize winner Daniel Kahneman, this book offers much food for thought on higher cognitive processes.
10. *Einstein Never Used Flashcards: How Our Children Really Learn—and Why They Need to Play More and Memorize*—Less—an overview of child development, with an eye toward education, by Kathy Hirsh-Pasek and Roberta Golinkoff.
11. LearningScientists.org—a website written by four cognitive psychologists interested in education.
12. Deans for Impact*—an organization devoted to rethinking teacher education, it has published two brief but useful summaries of learning science: <https://bit.ly/2HpjvxT> and <https://bit.ly/2Q1zJkn>.
13. RetrievalPractice.org—maintained by a cognitive researcher, this website offers lots of resources, focused especially on memory.
14. Dyslexia.Yale.edu—maintained by the Yale Center for Dyslexia and Creativity, this website includes lots of up-to-date research on reading.
15. DevelopingChild.Harvard.edu—the website of the Center on the Developing Child at Harvard University offers lots of useful research summaries of complex topics.
16. And, of course, the AFT’s *American Educator!* Visit www.aft.org/ae.

—D.T.W.

Oral Language Competence

How It Relates to Classroom Behavior



BY GREG ASHMAN AND PAMELA SNOW

Ms. Turner tossed and turned in bed, worrying about tomorrow's class. The last time she led science lab work with her eighth-grade students, it had descended into chaos. The children all raced to grab the same equipment, in spite of her carefully prepared lesson plan and instructions. As they pushed each other, argued, and misused and damaged the equipment, Ms. Turner lost her cool and started yelling. How was she going to avoid this happening again tomorrow?

Classroom behavior is a source of anxiety, stress, and distraction for many teachers and is a key reason teachers give for leaving the profession.¹ This often raises questions regarding the extent to which teacher preparation programs and initial teaching placements prepare pre-service teachers for working with students who display challenging behavior,

regardless of its basis. In fact, teachers have a broad range of widely applicable strategies they may use in the classroom, such as moving toward a misbehaving student or positively reinforcing appropriate behaviors.

Strategies such as these² are an essential part of a teacher's toolkit, but some students require more specific, tiered interventions. One of the more dangerous myths about teaching is that if teachers plan lessons that are engaging enough, students will behave well. This leads to teachers blaming themselves for student misbehavior and ignores all the other influences that affect a child, such as conflict at home, poor nutrition, and previous school experiences. It also neglects the fact that some children have a specific developmental disorder that affects their processing of information, and hence their learning and behavior.

Some developmental disorders, such as attention deficit hyperactivity disorder (ADHD), are widely known, albeit possibly overdiagnosed and subject to ongoing debate regarding optimal management strategies. Less widely known and understood, however, is the impact of developmental language disorder (DLD) on behavior and learning. Based on the statistics, the odds are good that this is an issue that at least a few students are dealing with in Ms. Turner's eighth-grade science class.³ The good news is that knowledge of difficulties associated with DLD may help teachers not only better deal with challenging behaviors but also improve learning outcomes for students with language disorders, as well as those outside the clinical range who nevertheless dis-

*Greg Ashman is a teacher, blogger, and PhD candidate at the University of New South Wales in Australia, where he researches cognitive load theory. He is the author of *The Truth about Teaching: An Evidence-Informed Guide for New Teachers*. Pamela Snow is a professor at and head of the La Trobe Rural Health School in Bendigo, Australia. A speech-language pathologist and psychologist, she is a coauthor of *Making Sense of Interventions for Children with Developmental Disorders: A Guide for Parents and Professionals*.*

play difficulties processing and using oral language. Before considering DLD more closely, however, we need to consider what language skills are and why they are relevant to school success.

The Importance of Oral Language Skills

Oral language skills refer to the ability to understand the spoken language of others and the ability to express oneself verbally by putting words and ideas into sentences and engaging appropriately in different social situations. One of the most important roles of adults in children's lives is to teach them the all-important yet unwritten rules of how to behave in a range of social, educational, vocational, and recreational contexts. This work is in equal parts demanding, time-consuming, challenging, amusing, frustrating, repetitive, and (in the long run at least) rewarding. It involves parents and other adults taking the reins in infancy and the pre-school years to provide high levels of support, scaffolding, explicit instruction, timely feedback, and repeated opportunities for mastery regarding children's emergent use of language.

As children enter toddlerhood and interact with a wider range of peers and adults, the unpredictability of their social world increases exponentially, and it is impossible for parents or teachers to preempt or intervene in

from incomplete or ambiguous information); and to resolve mismatches between verbal and nonverbal communication.

Imagine the child who, on being introduced to a distant relative for the first time, asks, "Why have you got hair growing out of your nose?" Most families have amusing, if sometimes excruciating, stories to tell of toddlers whose still coarse pragmatic language abilities meant that an alarming level of candor was used in a social situation. Such blunt honesty can often be laughed off when it comes from a 3-year-old, but it can cause serious social consequences if the speaker is 9 or even only 6 years old. Under typical circumstances, all aspects of pragmatic language ability strengthen with development, though there are generally a lot of stumbles and teachable moments along the way. The inner workings of the ways that we interact with each other as functioning adults are complex and often not obvious. A comment that is perfectly acceptable in one context may draw a hostile or indifferent reaction in another. This reflects the difficulty children and adolescents have in understanding social situations, considering the perspective of the other speaker, and learning subtle rules about when and why it is acceptable to communicate in a particular way.

A much larger than previously realized number of children have difficulties processing and using spoken language.



every possible interaction a child will take part in. Instead, they

provide this support across many interactions in a day, while over time tapering their level of direct oversight and stepping in when the child or adolescent stumbles.

Fitting in socially at school is crucial to making and keeping friends and to succeeding academically. Being socially competent is generally more difficult for young people with certain disabilities, as social competence is highly sensitive both to developmental level and to disabilities, some of which (such as DLD and mild forms of autism spectrum disorder) are not always formally diagnosed.

Speech-language pathologists use the term "pragmatic language competence" to refer to a speaker's ability to get it right when interacting with others, and they study both the emergence of this skill across childhood and adolescence, and the ways it is compromised by a range of clinical conditions across a person's lifetime. "Getting it right" refers to the ability to draw on executive functions such as planning, attention and concentration, and self-monitoring; to use core language skills (especially vocabulary and syntax) and social cognition skills that allow inferencing (i.e., drawing conclusions

Most of us have, at some point, misread a social cue, had a lapse in attention, or let our guard down in such a way that we inadvertently tore the social fabric. This might occur in the form of what we think is a witty retort that is actually received as offensive, or when we misunderstand the information a communication partner is seeking and we "answer" a question that was not the one asked. Happily, most of us are equipped to recognize such instances and swiftly repair the exchange to reduce the risk that anyone loses face or is confused, misled, or offended.

What Is Developmental Language Disorder?

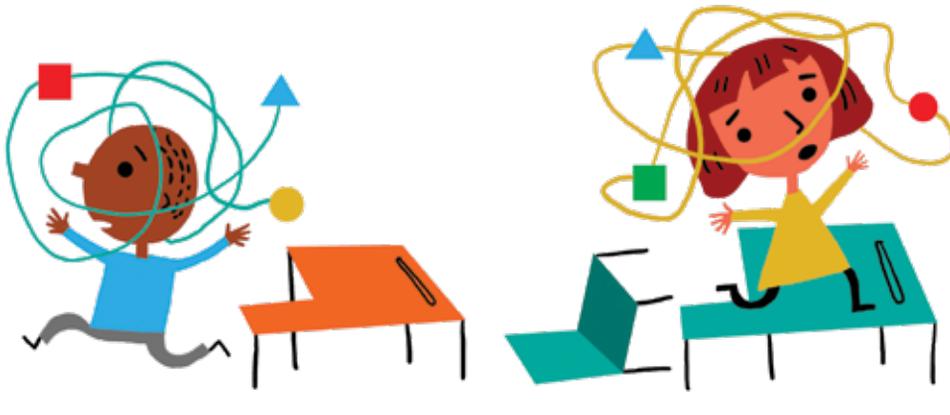
Researchers have learned in recent years that a much larger than previously realized number of children and adolescents have difficulties processing and using spoken language and reading social and linguistic cues, and that they are prone to having their pragmatic language difficulties misunderstood and mischaracterized by adults. These children have what is now referred to as developmental language disorder.⁴ DLD refers to listening and/or speaking abilities that fall significantly below those expected on the basis of age. This disorder may occur on its own or alongside another impairment or disability, such as autism, intellectual disability, or an acquired brain injury.

Knowing about DLD is important for teachers, because its presence is sometimes masked by other difficulties, especially behaviors that appear inattentive and noncompliant. At the extreme end of the spectrum, there is a substantial body of literature showing high rates of previously undiagnosed language disorder in young people who are in contact with the criminal justice system.⁵ Although reported rates of such difficulties vary across nations, they are typically in the range of 50–60 percent,⁶ far outstripping estimates that place the prevalence of language disorders in the community at 7–10 percent.⁷

Considered in the context of the school-to-prison pipeline, these findings call attention to the close association between language difficulties and disruptive behavior, particularly in the context of other risks, such as living in a disadvantaged community. Schools can work to keep such young people engaged with education as a means of countering antisocial influences. When language and behavior difficulties occur together, it is the behavior difficulties that are likely to be a focus for parents and teachers, because these cause the greatest level of day-to-day disruption for everyone—the affected students, their peers, and the adults in their world. Inter-

- Being able to retain and then follow multistage commands, such as, “Once you have answered the question on page 10, draw a line on your page and write a new heading, ‘The Aztecs.’” It is impossible to discern how much such difficulties reflect poor working memory (see below) and how much they are due to reduced comprehension abilities. The bottom line is that affected students will grasp only one or two components of the instructions above;
- Knowing how to begin and end conversations in appropriate ways;
- Taking in instructions in an environment with background noise and other distractions;
- Producing connected spoken language in order to share their own experiences (narrative discourse); explain how something works, such as the rules of a game (procedural discourse); or give a classroom presentation on a curriculum-based topic (expository discourse);
- Understanding that the nature of their relationship with the other speaker will influence the communication style.

DLD’s presence is sometimes masked by behaviors that appear inattentive and noncompliant.



vening solely at the level of behavior may not, however, address the root causes, such as difficulties understanding teacher requests.⁸

Knowing that young people who come into contact with the criminal justice system are much more likely than their typically developing peers to have difficulties using and understanding everyday language⁹ helps us to understand two key issues for such students: why they struggle with verbal interactions, and why their reading, writing, and spelling skills are typically so poor. Reading is fundamentally a linguistic activity, and students with poor language skills struggle with the transition from the spoken word to the written word in the early years of school. Those who do not successfully transition from learning to read to reading to learn often also display inattentive and disruptive behavior in the classroom.¹⁰

Children with DLD have differing core language skills, such as in their use of vocabulary and sentence structure, but most struggle to read social cues and so experience the following problems:

- Knowing when to talk and when to listen, including how to appropriately interrupt the other speaker;
- Knowing how to introduce and change topics;
- Being able to follow shifts and segues in discussions, whether one-on-one or in groups;

For example, we display respect for authority figures by stopping what we are doing when they

speak to us, by not fidgeting, by allowing the more senior partner to select and conclude topics, and by ensuring that we do not say or do things that might be construed as disrespectful, such as appearing to mock the other speaker; and

- Discerning direct communication from humor, sarcasm, irony, metaphor, and other forms of nonliteral, figurative language. Figurative language is so much a part of everyday language that we are often unaware of its presence in our conversations. Figurative language is the spice of everyday communication, but as such it can add complex flavors that make language hard for some children and adolescents to understand.

Sometimes children with language disorders are given related but less-than-specific diagnostic labels, such as ADHD, which can exist alongside language disorders. Labels such as these may be appropriate, in the sense that children can meet diagnostic criteria for more than one disorder at a time (a phenomenon referred to as comorbidity). However, sometimes misdiagnosis occurs, and this is more likely in clinical and educational settings in which DLD is poorly understood. Because language disorders impact written language as well, the reading and writing skills of affected students will fall behind those of their peers. In turn, this deepens

the struggle these children experience every day in the classroom, in terms of managing the increasingly complex written demands of the academic curriculum.

Students with language disorders often make their presence felt in the classroom by struggling to keep up academically and socially, and by missing or misreading social cues. It has been said that “learning floats on a sea of talk,”¹¹ and if you are not as proficient as at least the average child in the classroom with respect to your verbal abilities, you will be left behind. Perhaps worse still, you may acquire a label such as “inattentive,” “rude,” or “disengaged.” Labels are double-edged swords in schools. They are sometimes necessary in order to gain access to additional services but can also cause adults to prejudge a child and be prone to a range of cognitive biases as a consequence.

What Is the Role of Cognitive Abilities in Supporting Everyday Language and Learning Skills?

A child’s executive functions are an important contributing factor to pragmatic language competence. These include the ability to focus and sustain attention, to plan and organize behavior, to self-monitor and self-regulate, and to curb impulsiveness. Executive abilities such as these are associated with maturation in the prefrontal regions of the brain. These areas mature considerably later than other cortical areas (typically around the early 20s),¹² and so it is not surprising that executive functions are very much under construction in school-age children. It is also important to note that neurobiological disabilities are common in school-age children. This means that the abilities of students with developmental language disorder, ADHD, and/or autism are likely to be more fragile with respect to these important drivers of academic success.

Another important consideration is the fact that working memory is limited. Working memory roughly corresponds to what we are consciously thinking about and processing at any given time.¹³ The capacity of working memory is currently thought to be limited to about four items.¹⁴ These constraints apply to individuals without a learning disability, but there is evidence¹⁵ that working memory may be even more constrained for students with disorders such as DLD.

A learning theory known as cognitive load theory specifically addresses working memory limits. In essence, each task we perform, including learning tasks, imposes a “cognitive load” on working memory. As educators, we try and optimize this load. For complicated tasks that are relatively new to the learner, this involves reducing the number of items the learner must pay attention to, which can be achieved in a number of ways.¹⁶ One approach is to provide students with fully worked examples or models. In addition, to avoid imposing any unnecessary cognitive load, it’s best not to show students a presentation with lots of distracting animations that are not essential to the point the teacher is trying to make.*

*For more on avoiding such distractions, see “Keep It Simple to Avoid Data Distractions” in the Summer 2013 issue of *American Educator*, available at www.aft.org/sites/default/files/periodicals/Notebook_0.pdf.

Similarly, it’s best to avoid asking students to read a text while you simultaneously explain the meaning of the text or summarize its messages, as such explanations force them to divide their attention. These may sound like obvious points, but, in our experience, they commonly occur when teachers present new material. On the other hand, it appears that working memory has separate channels for processing visual and verbal information. As a result, we can work around some of the working memory limits by using a relevant visual image, such as a diagram, alongside a spoken explanation of the image.

These effects have been validated by a large number of controlled experiments. And there is strong evidence that applying these principles may also aid motivation,¹⁷ as students experience a sense of achievement rather than a sense of frustration.

How Can Understanding DLD Inform Teachers’ Classroom Practice?

Language skills are closely related to cognitive processes such as information processing, problem solving, and shifting from the concrete to the abstract. As such, idiomatic language and multistage instructions do have a place in the classroom, and

children should be expected to produce and understand spoken and written language across a range of genres, in line with curriculum requirements. However, teachers need to consider children’s developmental capacities and the possibility, for example, that they have not had prior exposure to expressions that sometimes only make sense when they are explained in context. Asking a new student “Have you found your feet yet?” seems straightforward, yet the literal meaning is a significant linguistic distance away from the intended meaning of “How are you settling in?” A whole host of English idioms work in a similar way, with the literal

meaning—the meaning that students may take from the phrase—being baffling or absurd. Imagine asking a student with language difficulties, “Does that ring a bell?” or “Can I twist your arm?” Imagine suggesting a student stop “Shooting the breeze” or telling him to “Keep your chin up.” In fact, it is easy to imagine these things, because this kind of language is widely used in everyday interactions.

Similarly, sarcasm and irony, although important to an understanding of some texts, should be avoided in giving classroom directions. Sarcasm involves saying the *opposite* of what you actually mean, and so there is a significant risk that children with DLD will receive the opposite message to the one you intended.

It is also worth noting that children with pragmatic language impairments may need explicit teaching in expected norms. Most people pick up conventions around language from a process of immersion—our ability to do so has been described as “biologically primary”¹⁸ and is a long but relatively effortless process we barely even notice. This can make it difficult for us to empathize with students who struggle to learn these conventions. The first step should therefore be to make expected norms clear and explicit. A student who constantly interrupts the teacher

Sarcasm and irony should be avoided in giving classroom directions.



fewer instructions. These routines could form part of a wider classroom management strategy that draws on both verbal and nonverbal cues.

Second, Ms. Turner could keep in mind the working memory constraints that apply to all her students and ensure that she provides only a small amount of new information at any given time. Long lists of lab instructions could be broken down into smaller chunks, with new information provided after each step

has been completed. It would also help her students if she avoided using idiomatic or unusual language, sarcasm, and irony, and realized that the way some students communicate with her may not always follow accepted adult norms, and that these students may need help to develop these skills. Ms. Turner could seek the input of professionals, such as speech-language pathologists, who can offer advice on specific student needs.

These steps will never solve every problem that arises in a complex environment full of young people. But they can help teachers develop a more preventive approach. □

Endnotes

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18. D. C. Geary, "Reflections of Evolution and Culture in Children's Cognition: Implications for Mathematical Development and Instruction," *American Psychologist* 50, no. 1 (1995): 24.

Teaching strategies likely to help students with DLD may actually benefit all students.

in class, for instance, should have this behavior calmly highlighted, receive an explanation as to why it is unacceptable, and be given specific targets to achieve, in incremental and achievable steps. This represents a structured intervention beyond the kinds of generic classroom management strategies discussed earlier.

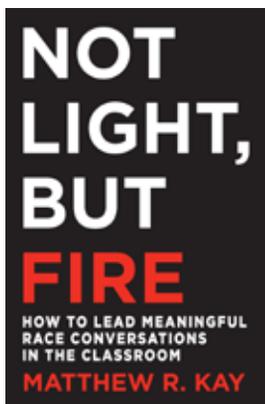
Teachers who have access to the services of a speech-language pathologist may be able to request a formal assessment of language skills in students they are concerned about, and can work with that professional to support those students. Teachers are not clinicians and are not in a position to formally diagnose DLD on their own. Nevertheless, recognition of the possibility may help you tailor classroom supports and gain access to interventions.

These supports will not only help students with DLD but also aid students who do not come from an English language background and who are therefore less familiar with English idioms and expressions. And there is other good news: teaching strategies likely to help students with DLD may actually benefit all students, both in terms of motivation and support in reaching particular standards.

Verbal communication is the basis for everything that occurs in classrooms, whether this is the delivery of new information or the regulation of behavior. Although language skills are biologically primary, their development in children of the same age can be highly uneven. Further, a significant proportion of children in any class may have developmental language disorders, which may or may not have been formally diagnosed. Such disorders typically impact a student's success with spoken and written language.

Back to Ms. Turner and her science class. Given what we know about DLD, what are the implications for her teaching? First, she could consider establishing a number of routines for the start of class. Such routines would result in her needing to communicate

NOT LIGHT, BUT FIRE: HOW TO LEAD MEANINGFUL RACE CONVERSATIONS IN THE CLASSROOM



For teachers who want to engage students in important yet difficult discussions about race, but who feel unsure how to go about it, a book by a fellow educator may offer some help. *Not Light, but Fire: How to Lead Meaningful Race Conversations in the Classroom* (Stenhouse), by Matthew R. Kay, offers ways to approach the topic of race in order to strengthen classroom communities and shape the next generation of thoughtful citizens.

A public school teacher in Philadelphia, Kay opens his book with an eloquently written introduction in which he explains

the book's title. The phrase comes from an anti-slavery speech that Frederick Douglass, the former slave and great American statesman, gave in 1852. In his address, Douglass argued that in discussions of race, "It is not *light* that is needed, but *fire*." Kay writes that "Douglass knew what many are noticing now: that we never seem to graduate to the *next* conversation. The hard one." For such conversations to be authentic and to result in progress, Douglass metaphorically called for them to be infused with fire.

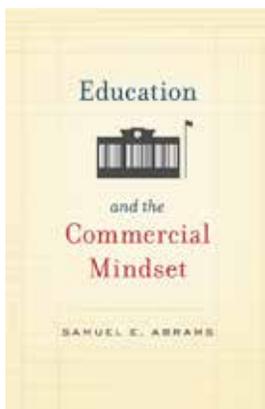
The metaphor holds particular meaning for Kay. As a teacher of English, he deeply appreciates language. And as a teacher of

color, he knows firsthand our country's struggles with racism.

To lay the foundation for these conversations at the Science Leadership Academy, where he teaches high school students from diverse backgrounds, Kay ensures they listen patiently, listen actively, and police their voice. All three behaviors entail students truly hearing what their classmates say, speaking succinctly when it's their turn to speak, and making eye contact with their classmates—not just with him, their teacher—during discussions.

Throughout the book, Kay references texts that educators have long relied on to raise issues of race in the classroom. These include *Roll of Thunder, Hear My Cry*; *To Kill a Mockingbird*; and *Adventures of Huckleberry Finn*. Such works have long been rightfully part of the curriculum. But he encourages English language arts teachers to cast a wider net. For instance, they could add to their syllabi the murder mysteries of Walter Mosley, the science fiction of Octavia Butler, and the novels of Chimamanda Ngozi Adichie. These works, which feature characters of color, "present a more layered idea of race and culture," an idea crucial for all students, no matter their color, to understand. Although discussing racism is absolutely necessary, Kay makes this key point: "We should push, with equal energy, against the trend to make struggle-against-white-people stories the *only* stories we discuss."

EDUCATION AND THE COMMERCIAL MINDSET



In recent years, several books have been published that explore the corporate influence on public education. Few are as in depth and as evenhanded as *Education and the Commercial Mindset* (Harvard University Press) by Samuel E. Abrams. A former high school teacher in New York City, Abrams chronicles the push to privatize K-12 education and explains how some, but not all, business practices inevitably distort education policy.

Currently the director of the National Center for the Study of Privatization in Education at Columbia University's

Teachers College, Abrams first focuses on the growth of educational management organizations (EMOs), private companies hired to run public schools. The brainchild of economist Milton Friedman, the father of school vouchers, EMOs gained ground in the 1990s and early 2000s by winning lucrative contracts to turn around low-performing schools in low-income areas.

"They were education's answer to health maintenance organizations, or HMOs, likewise dedicated to improving service, containing costs, and, in many cases, making a profit," Abrams writes. But they were hardly successful. In particular, he recounts the rise and fall of one such for-profit enterprise, Edison Schools Inc. In a chapter tellingly titled "Waterloo," he

explains how schools that the company managed in Baltimore and Philadelphia saw increases in behavior problems and truancy rates and decreases in student achievement.

He then contrasts Edison's trajectory with those of two nonprofit charter networks, KIPP and Mastery Charter Schools. Abrams explains why KIPP and Mastery have largely succeeded where Edison failed, and he lauds both for doing "great work despite the force of poverty." However, he does not argue that charters can improve all of public education. "Their dependence on a finite supply of generous philanthropists, tireless teachers, and students as well as families capable of abiding by rigid academic and behavioral expectations limits their reach," he writes.

What he says is needed is greater investment in public schools, which are responsible for educating all students. To that end, Abrams suggests transforming them into community schools with wraparound services for students and families.

What has prevented such a transformation? That "much of our mistaken thinking about education policy derives from our commercial mindset." To illustrate his point, he devotes the final two chapters to how Finland has vastly improved its education system by investing in it, unlike Sweden, which has devoted considerable resources to building a system of vouchers. Focusing on teacher training and increasing teacher pay are "signature lessons from the business world," Abrams writes. If only policymakers in the United States would learn to apply them.

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(Continued from page 11)

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