Billboard

**Emily Hanford:** For a long time, no one really knew how children learned to read.

**Louisa Moats:** It was more debates among people who had philosophies.

Lots of people believed learning to read was as natural as learning to talk.

**Adult:** Bye-bye.

**Child:** Bye-bye.

But it’s not. There’s now been decades of scientific research.

**Moats:** This is the most studied aspect of human learning.

And yet, across the United States, schools aren’t teaching reading in ways that line up with the science.

**Mark Seidenberg:** Why is it so controversial? It shouldn’t be, but it is.

More than half of American kids aren’t proficient readers.

**Kim Harper:** I think it became easier to say, ‘Well, that’s just the way it is.”

The science shows pretty much everyone can learn to read, if they’re taught. Some schools are changing their ways.

**Teacher:** We’re going to start doing something today that we have not done before. This is…

**Teacher and students:** Brand-spanking new.
Part 1

Emily Hanford: From American Public Media, this is an APM Reports documentary. I’m Emily Hanford.

It was 2015 and Jack Silva had a problem. He’s the chief academic officer for the public schools in Bethlehem, Pennsylvania, and a lot of the kids in his schools were not reading well. Only 56 percent of third graders were scoring proficient on the state reading test.

Silva: I didn’t, I didn’t know what to do.

He knew nothing about how kids learn to read or how reading should be taught. But he did know that even some older students were struggling with pretty basic stuff when it came to reading.

Silva: I was a middle school and high school teacher for many years and I could see students who had difficulty with breaking down individual words.

They’d come across a word they’d never seen before and have no idea how to sound it out. Kim Harper noticed the same thing. She was a high school English teacher in Bethlehem and she says a disturbing number of her students were not very good readers – even students in honors classes.

Harper: They didn’t like to read, they avoided reading, they would tell me it was too hard.
She didn’t know what to do about it either so she kind of shrugged it off.

**Harper:** I think it became easy to say, “Well that’s just the way it is. You know, we’re always going to have x percent of kids who it’s just going to be a struggle for.”

Less than 60 percent of kids reading proficiently.

(MUSIC)

It wasn’t shocking. It’s just the way things were.

**Mike Faccinetto:** It was always, “Well, that’s not a reflection of Bethlehem, that’s a portion of us…

Mike Faccinetto is president of the Bethlehem school board.

**Faccinetto:** “Well, you know, those kids, their parents aren’t around, or maybe they don’t have two parents or one parent. Or maybe they’re with a grandmother. And that’s the best they’re going to do.”

It’s true that the district’s poorest schools had the worst reading scores. There are lots of low-income families here – but there are fancy homes here too. And when chief academic officer Jack Silva was examining the reading scores he saw there were plenty of kids at the wealthier schools not reading very well either. This was not just poverty. Since he knew nothing about reading, he started searching online. There’s a whole lot of research about how kids learn to read.

**Moats:** There are thousands of studies.
This is Louisa Moats. She’s been teaching and researching reading since the 1970s.

Moats: This is the most studied aspect of human learning.

One of the many things researchers have learned over the years is that virtually all kids can learn to read. Researchers have done studies in classrooms and in clinics and they’ve shown – over and over – that somewhere between one and six percent of kids have such severe learning disabilities that they will probably always struggle with reading. But everyone else can learn to read – *if* they are taught.

The problem is lots of kids aren’t being taught – at least not in ways that line up with what science says about how children learn to read. The result: More than six in ten fourth-graders in the United States are not proficient readers. Thirty million adults struggle to read a basic passage of text. And this is not just a poverty problem: one-third of struggling readers are from college-educated families.

(Theme music)

From APM Reports this is Hard Words: Why Aren't Our Kids Being Taught to Read? Kids who struggle to read are more likely to drop out of high school. They’re more likely to end up in the criminal justice system. They’re more likely to live in poverty when they grow up. But we shouldn’t have so many struggling readers. Over the coming hour, we’re going to find out why. We’re going to learn what typical reading instruction in American schools is like, and why it’s wrong. We’re going to hear what scientists have discovered about how the brain learns to read – and how kids should be taught based on that science. And we’re going to investigate why teachers and schools don’t know this science, and what needs to be done to change that.

We’re going back now to Bethlehem, Pennsylvania, to find out what the chief academic officer Jack Silva decided to do about all those struggling readers in his schools. He knew he had to do something.
**Silva:** It was really, you know, looking yourself in the mirror and saying, “Less than 60 percent of third graders? And me being the chief academic officer…” was just, “Okay, let’s go, let’s do something differently.”

Jack Silva hired some people to help him and Kim Harper was one of them. She’s the high school English teacher you heard a moment ago. One of her first assignments was to tour Bethlehem’s sixteen elementary schools and find out – what were the teachers doing? How were they teaching kids to read? She went to a professional development day at one of the district’s lowest performing elementary schools.

**Harper:** And they were talking about how kids attack words in a story.

When a child came to a word he didn’t know, the teacher would tell him to look at the picture and guess. The most important thing was for the child to understand the meaning of the story. So if the kid came to the word “horse”…

**Harper:** And the kid reads it as “house” it’s wrong. But if the kid said “pony” it’d be right because pony and horse mean the same thing.

Kim Harper was shocked. First of all, pony and horse don’t mean the same thing. Plus – what do you do when you’re reading a book that doesn’t have any pictures? The teachers described their approach to reading instruction as “balanced literacy.” Kim Harper didn’t really know what that meant but her colleague Jodi Frankelli had heard lots about balanced literacy. She was working with Harper to figure out what to do about reading. She’d previously been a principal at one of Bethlehem’s elementary schools. Jodi Frankelli says the main idea behind balanced literacy was: give kids lots of good books – and with some guidance and enough practice, they become readers.

Brain research.

(Music)

In the 1990s, scientists began figuring out ways to peer inside our brains. And they learned a lot about how our brains learn to read. The scientists were doing their research in labs that were sometimes right across the quad from schools of education – but reading researchers and education researchers kind of live in separate universes. They go to different conferences, publish in different journals. The big takeaway from all the scientific research on reading is that learning to read is not a natural process. We are not born wired to read. We are born wired to talk.

(Baby babbling)

This is a toddler. He’s 20 months old. It’s actually my own son, many years ago.

Hanford: What’s the sound that a train makes?

Son: Choo choo

Kids learn to talk by being talked to, being surrounded with spoken language. That’s all it takes. No one has to teach them to talk.

Father: Is Pop by the tub?

Son: No!

Father: No. Just my rubber duckie.

That’s my husband reading our son a story.
Father: Is Pop in the cabinet?
Son: No.
Father: It’s just my toothbrush and toothpaste.
Son: Toothpaste.
Father: Yeah.

Talking comes naturally. Reading doesn’t. Our brains don’t know how to do it.

(Music)

That’s because human beings didn’t invent written language until a few thousand years ago. And that’s like last week in the course of human history. To be able to read, structures in our brain that were designed for things such as object recognition have to get rewired a bit. But another big takeaway from decades of scientific research is that, while we use our eyes to read, the starting point for reading is sound. What a child must do to become a reader is figure out how the words he hears and knows how to say connect to print on the page. Writing is a code humans invented to represent speech sounds. And kids have to crack that code to become readers.

(Electric Company song)

If you grew up in the 1970s, like I did, you might have watched the Electric Company. This is the part of the show I remember best. Silhouettes on each side of the screen would call out parts of words. The letters that represent each part would flow out of the mouths of the silhouettes and blend together to make words.

(Electric Company song)

For kids to learn how to read, they need to understand that words are made up of different speech sounds. That’s called phonemic awareness. Once children are able to identify and manipulate the
individual sounds in spoken words, they can begin to understand how different letters and combinations of letters represent those sounds.

The producers of the Electric Company planted their flag firmly in the camp that said kids need good phonemic awareness to be able to learn to read. I use the word “camp” because back in the 1970s there were two distinct factions when it came to beliefs about how kids learn to read. They were mostly beliefs at that point because a lot of the science hadn’t been done yet. This is Louisa Moats again.

**Moats:** It was more, um, debates among people who had philosophies.

Louisa Moats was in the camp that believed in phonics. That means teaching children how letters represent speech sounds. The other camp believed in what is known as whole language. This is Mark Seidenberg. He’s a cognitive neuroscientist.

**Seidenberg:** Whole language essentially said, “If we create a literacy rich environment that is highly motivating and provides the right sort of materials the children will figure out how reading works.”

Mark Seidenberg has been studying how children learn to read since the disco era – that’s how he puts it in his bio. He says the core belief that underlies whole language is that reading comes naturally.

**Seidenberg:** The essential idea is basically you learn by doing. So, children are supposed to learn by doing, not be told what to do.

So, no phonics lessons. For the whole language folks, phonics was old-fashioned, kind of conservative. In the 1970s and 80s and 90s the big idea that took over in schools – and in colleges of education – was that children don’t need phonics. In fact, the belief was that phonics

“Hard Words” Transcript from APM Reports
lessons might be bad for kids, might get in the way of them developing a love of reading by making them focus on all these little tedious skills like breaking words into parts.

Seidenberg: In whole language, the battle was seen as are you in favor of literacy or are you in favor of skills?

And it was a battle.

(Music)

People actually called it war. The Reading Wars. It was an intense fight because whole language was more than just a set of beliefs about how kids learn to read. It was a movement that said children and teachers needed to be freed from the tedium of skills-based instruction. The battle got so heated, that Congress eventually got involved, convening a National Reading Panel to review all the research on reading. In 2000, the Panel released its report. The sum of the research showed that explicitly and systematically teaching children the relationship between sounds and letters improves reading achievement. There is no evidence to say the same about whole language. None.

Seidenberg: Faced with all this evidence contradicting a very deeply held belief, the educational establishment did an amazing thing. They said “balanced literacy.”

Balanced literacy. That’s the term the schools in Bethlehem were using. After the National Reading Panel Report in 2000, whole language proponents could no longer deny the importance of phonics. But they didn’t give up the reading programs they were selling. And they didn’t give up their core belief that learning to read is a natural process that occurs if kids are surrounded by good books. Instead they said, let’s do both. A balance. So whole language didn’t disappear, it just got repackaged. And phonics was treated a bit like salt on a meal. A little here and there, but
not too much, because it could be bad for you. Mark Seidenberg knows of a child who was struggling so much with reading that her mother paid for a private tutor.

**Seidenberg:** The tutor taught her some of the basic skills that the child wasn't getting in her whole language classroom and at the end of the school year the teacher was proud that the child had made so much progress and the parent said, “Well, why didn't you teach this phonics and these other basic skills related to print in class?” And the teacher said, “Oh, I did. Your child was absent that day.”

(Music)

The problem with teaching just a little bit of phonics is that according to all the research, phonics is crucial when it comes to learning how to read. Surrounding kids with good books is a great idea, but it’s not the same as teaching children to read. According to Mark Seidenberg, the reading wars of the 80s and 90s are over. And science lost. The ideas that underlie whole language are still – right now – everywhere in American classrooms. Like that idea you heard earlier – that if a kid comes to the word “horse” and says “pony,” it’s fine. That comes from this whole language theory that reading doesn’t involve exact, detailed identification of letters in words. Instead, the theory goes, when readers come to a word they don’t know, they use context to figure out what the word is. So, if a child gets stuck on a word, she’s told. “Reread the sentence, think about a word that would make sense in the sentence, look at the pictures.” She’s told that’s what good readers do. But in fact, that’s not what good readers do. Studies that compare skilled readers to poor readers show that poor readers guess when they come to a word they don’t know, because they have difficulty decoding. When skilled readers come to a word they don’t know, they rapidly identify the sounds and letters in the word. Good readers may guess at the meaning of the word, but they don’t guess at the print on the page.

(Sound)
We’re going back to Bethlehem, Pennsylvania now where balanced literacy was the prevailing approach to reading instruction until the district got serious about trying to do something about all those kids who were struggling with reading.

**Kathy Bast:** Good morning, Lynn. Hi, Grant.

This is Kathy Bast. She’s walking the halls of Calypso Elementary where she’s the principal.

Back in 2015, when Bethlehem realized it needed to change the way it taught reading, district leaders decided the first step would be a series of trainings for all the principals at the district’s sixteen elementary schools. Over the course of an entire school year, the principals were going to be taught the reading science. As it happened, Kathy Bast was out on medical leave when the trainings began. But her colleagues warned her.

**Bast:** They said to me, “Kathy, we know you. You’re not going to take well to this training.”

The principals were learning about the importance of explicitly teaching children how to decode words. And everyone was sure Kathy Bast was going to resist.

**Bast:** They knew who I was and how reading was a passion and that decoding was never part of anything I ever did.

But Kathy Bast had a secret.

(Music)

Even though she was known as the district’s number one balanced literacy champion, she had doubts. Before becoming a principal, Kathy Bast had been a reading specialist. It was her job to
help struggling readers. In her training to become a reading specialist, she says she learned a lot about how to identify a child with a reading problem. But she learned nothing about how to help a child actually learn to read.

**Bast:** I didn’t know what to do, except just give them more books. And it wasn’t working.

With time on her hands while she was on medical leave, Kathy Bast began reading about reading – and she discovered the vast scientific literature. When she returned to work from medical leave and joined her fellow principals in the trainings on the reading science, she was ready to hear what the trainer had to say. And it kind of blew her mind.

**Bast:** Wow, okay, let’s go get at this.

The training the principals were doing used a curriculum written by Louisa Moats. You heard her earlier. The curriculum is called Language Essentials for Teachers of Reading and Spelling or LETRS for short. The principals went through the training in 2015. The kindergarten teachers went through it the next year. Then the district’s first and second grade teachers did the training. I got to sit in on it for part of a day.

**Mary Doe Donecker:** Good morning, everyone…

The training was led by Mary Doe Donecker. She’s an educational consultant.

**Donecker:** Which word doesn’t begin with the same sound? Theory, therefore, thistle, thinker.

**Crowd:** Therefore
For children to clearly understand how letters represent speech sounds, they need to be able to hear the speech sounds. And teachers do, too. It’s not always easy.

**Donecker:** tell me the first sound you hear in “Eunice”?

**Crowd:** Youuu…

**Donecker:** /Y/, /y/, before you get to the /oo/. How about “Charlotte”?

**Crowd:** Shhhh…

Once kids can isolate the sounds in a word, their next task is to understand how letters represent those sounds. In English, we have 44 different speech sounds, or phonemes. Each phoneme is represented by a letter or combinations of letters. Research shows when kids are explicitly taught how letters represent phonemes, they become better readers.

(Music)

But phonics isn’t enough. Kids can learn to decode words without knowing what the words mean. To comprehend what they’re reading, kids need a good vocabulary, too. Scientists came up with a model to explain the relationship between a person’s ability to decode text and their ability to comprehend what they’re reading. Scientists called it the Simple View of Reading and it’s basically a math formula. It says this: Reading comprehension equals decoding skills times language comprehension.

Language comprehension is what develops naturally in children when people talk to them.

**Father:** It’s just my toothbrush and toothpaste.

**Son:** Toothpaste.

Decoding is what kids have to be taught.
Some kids learn decoding quickly and easily. Others need much more instruction. But a child who can’t decode will never be a good reader. Because of that math formula. Zero times anything is zero.

In their training on the science of reading, the teachers and principals in Bethlehem, Pennsylvania learned about the Simple View of Reading and a lot more. There’s quite a bit to know about the structure of the English language to be able to teach it to little kids. I sat down with three teachers who were in the first group to go through the training in Bethlehem. I asked them what it was like at first.

**Adrienne Ibarra:** I remember sitting there and, like, my head was throbbing, cause it was like, “How can I take all of this in?”

**Candy Maldonado:** “Oh my God, I’m never going to be able to use this or I don’t know how to use this,” and then them constantly saying, “You’re going to get there, you’re going to get there, you’re going to get there.”

That was Adrienne Ibarra and Candy Maldonado. They hadn’t learned any of this in their teacher preparation programs. Neither had teacher Michelle Bosak.

**Michelle Bosak:** It was very broad classes, vague classes and like a children’s literature class but not actually teaching phonics and things like that.

When they became teachers, they did a little of what they thought was phonics. Candy Maldonado says it pretty much went like this:

**Maldonado:** So like we did like a letter a week. So if the letter was A, we read books about A, we ate things with A, we found things with A. And then – but we never did
anything else with it. Like, we all we did was learn like A said 'ah'. And then there's apples and we tasted apples.

Hanford: When you were all being taught to teach that way and teaching that way, what was the idea about how children learn to read? Did you have a sense of that?

Ibarra: No. No. Now that I think about it, no, not really. It was just that they do. (laugh)

Maldonado: Almost like it's automatic.

Ibarra: Yeah.

When these teachers started the training on the science of reading, they felt overwhelmed. By the time they were done, they felt guilty.

Bozak: I thought, “All these years, all these students.”

Ibarra: I feel horrible guilt.

The Bethlehem school district has adopted a motto to help ease the guilt. “When we know better, we do better.”

(Sound)

We’re now in a kindergarten class at Bethlehem’s Calypso Elementary School. This is Kathy Bast’s school – the principal everyone thought was going to resist the reading science, but didn’t. Her kindergarten teachers got the science of reading training last year. Now, they’re putting it into practice.

Teacher’s aide: Globe

Kids and Lynn Venable: Globe, /g/, /g/, globe.

Venable: Good job cutting that sound off guys.
The entire class is seated on a carpet while a student teacher holds up flashcards with pictures on them. No letters. The kids are just practicing the first sounds in words that begin with “guh” and “wuh.”

**Teacher’s aide:** Water

**Kids:** Water, /w/, /w/, water

Teachers in Bethlehem use a curriculum that mixes whole class lessons like this one with group work that’s tailored to the needs of kids at different points in the process of learning to read. After the class lesson, teacher Lynn Venable meets with a group of six students at a small u-shaped table.

**Venable:** So we’re going to start doing something today that we have not done before. This is...

**Kids and Venable:** brand spanking new.

**Venable:** All right.

This group of kindergartners is ready for something more challenging than words that begin with /w/ and /g/.

**Venable:** So let’s read it together. What’s it say?

**Venable/kids:** My Pet Report.

**Venable:** Wonderful

These kids are writing a report about a pet they want. They have to write down three things their pet can do. But – spelling is hard.

**Roman:** I need a pencil with an eraser.
“I need a pencil with an eraser” says Roman. The kids make lots of mistakes. Quinn spells “bark” b-o-c. Boc. He needs some help discerning the speech sounds in the word.

Venable: What is your dog doing? A dog can...?
Quinn: Bark.
Venable: Now, I want you to make all the sounds in bark. ‘Cause you can do this, ready...

Spelling errors are like a window into what’s going on in a child’s brain when they’re learning how to read.

Venable: What’s the first sound?
Quinn: /b/
Venable: /b/. We got that one. That’s b. Now what’s the next sound?
Quinn: /ar/
Venable: /ar/ – how do you make /ar/?

Quinn struggles for a moment but gets some help from Mrs. Venable.

Venable: How do you make the sound /ar/? Where’s your pirate patch? Arrr…
Quinn: Arrr...
Venable: How do you write /ar/? Do you remember? Tell me…

With a little more prompting, Quinn eventually gets it.


Lynn Venable has been teaching elementary school for 21 years. She says she used to think reading would just kind of “fall together” for kids if they were exposed to enough print. Now –
because of the science of reading training – she knows better. She says this year’s class of kindergartners has progressed more quickly in reading than any class she’s ever had.

**Venable:** My kids are successful, and happy and believe in themselves. I don’t have a single child in my room that has that look on their face like, “I can’t do this.”

**Venable:** Kira Lee, can you tell me what your cat’s going to do?

**Kira Lee:** A cat can scratch, claw and purr…

**Venable:** You’re absolutely right, that is a wonderful list of things that your cat can do. Give me some! (Sound of high-five)

At the end of each school year, the Bethlehem school district gives kindergartners a test to see where they are with early reading skills. The year before the science of reading training began, 65 percent of kindergartners at this school tested below the benchmark score, meaning most of them were heading into first grade at risk of reading failure. After the kindergarten teachers were trained zero kindergartners at Calypso finished the year at risk of reading failure. And at the end of this year, same thing. Two years in a row, every single kindergartner at Calypso was at or above the benchmark score on the reading test. Across the entire Bethlehem school district, more than eight in ten kindergartners met or exceeded the benchmark score – up from fewer than half before the science of reading training started. Chief academic officer Jack Silva is thrilled with the results, but cautious. He’s eager to see how the kindergartners do when they get to that big state reading test in third grade.

**Silva:** We may have hit a home run in the first inning but there’s a lot of game left here.

It’s impossible to know if the science of reading training is what led to the test score gains. Some of the schools in the district – including Calypso – moved from half-day to full-day kindergarten the same year the training started. So that could have been a factor. But Kathy Bast, the Calypso principal, thinks that if her teachers had just been doing more of the same when it came to
reading instruction, she’d still have a lot of struggling readers at her school. She says other school districts are taking note of Bethlehem’s progress.

**Bast:** I’ve gotten calls from other administrators in other districts, “What are you doing differently in Bethlehem?”

She remembers one call in particular.

**Bast:** “Tell me what you’re doing. My superintendent saw your scores in the paper. He asked me to call you.” I spend over an hour on the phone, just detailing what I’ve talked to you about. And after all of it was said and done, “Oh, I don’t think that’ll work here. There’ll be too much push back.”

(Music)

Too much push back. Beliefs about how kids learn to read and how they should be taught run deep in American education. You can find schools and school districts across the country that are trying to change things the way Bethlehem is. But typical reading instruction in American schools is some version of a balanced literacy approach --- backed up by the core belief that learning to read is a natural process. Many educators don’t know the science – and in some cases they actively resist it. Why is that? That’s what we’re going to hear about after the break.

(Music)

You’re listening to an APM Reports documentary, Hard Words: Why Aren't Our Kids Being Taught to Read? I’m Emily Hanford.
You can learn more about the research on reading at our website. You’ll find this documentary there and many more stories about education, opportunity and how people learn. It’s all at apmreports.org.

If you have a story to share about reading, we’d love to hear from you. Send an email to contact@apmreports.org or find us on social media, @APMReports and @EducatePodcast. Support for APM Reports comes from the Spencer Foundation and Lumina Foundation. More in a minute. This is APM. American Public Media.

Part 2

Hanford: From APM Reports this is Hard Words: Why Aren't Our Kids Being Taught to Read?
I’m Emily Hanford.

(Sound)

We’re now in Jackson, Mississippi, where something unusual is happening.

Antonio Fierro: All right, colleagues, let’s go ahead and get started.

A group of teachers is gathered in a conference center for LETRS training. It’s what you heard the teachers doing in Bethlehem, Pennsylvania. But these teachers are college faculty from schools of education across Mississippi.

Fierro: So I’m going to go ahead and distribute some “anticipation guides” so to speak.
That’s a euphemism for quiz. The first question is: “True or false? Speaking is natural, reading and writing are not.” These are the faculty who teach people who want to be teachers how to teach reading. And they are being asked this question, because they might not know the answer.

**Fierro:** So, do I have everyone’s?

The trainer, Antonio Fierro, collects the quizzes. I don’t know how many of the professors got the question right. The answer, of course, is “true” – speaking is natural, reading and writing are not. Most people in this class should know that by now because this is the third day of this series of LETRS trainings. Here they are reviewing the speech sounds – or phonemes – in simple words.

**Fierro:** The next word is cloud. What’s the word? Cloud. Tap it: c-l – wait hold on, hold on. That first sound is right up there, all right?

The trainer points to a sound wall posted to his right. According to research, this is what you want to see in classrooms. Not an alphabet wall that says for example, O is for Octopus. But a sound wall that has all 44 speech sounds in the English language with the letters and combinations of letters that represent those sounds. Octopus is a great example of the short /o/ sound. But then there’s “owl” which starts with the letter O but begins with the sound /ow/ represented by the letters o-w.

The college faculty in this room – a lot of them didn’t know this.

**Roshunda Harris-Allen:** It’s a lot to take in.

This is Roshunda Harris-Allen. She’s a professor in the teacher preparation program at Tougaloo College in Tougaloo, Mississippi. She says she was never taught this stuff about language. Not as part of her college education or her doctorate. And not when she was a kid.
**Harris-Allen:** We weren’t taught phonemes, we weren’t taught sound recognition. We were just taught – here are your sight words, you need to memorize them.

She struggled with reading when she was little. Her colleague at Tougaloo, Trashonda Dixon, says she did get phonics instruction when she was young. But she never learned how to teach phonics.

**Dixon:** I think we did have issues with a lack of knowledge initially. But I think we’re making great strides here to correct that.

**Fierro:** With your partner, please discuss the “Simple View of Reading.”

(Audience talking)

**Professor:** So it’s one of the theories…

The reason I started off by saying something unusual is going on here in Mississippi is that college faculty almost never come together like this for training. And college professors getting training originally designed for elementary school teachers in the science of reading? Pretty much unheard of.

Louisa Moats, who developed the LETRS training, told me Mississippi is the only place she knows of where college faculty are doing this. And college faculty across the country need it. A number of reports and studies show that many faculty members in teacher preparation programs don’t know the reading science, don’t teach it - and in some cases actively resist it. We’ll get to the resistance in a bit. But first the story of how this training came to be in Mississippi.

(Music)
It was the early 2000s. Mississippi was – and always has been – at the bottom of the list when it comes to how well kids read. That big National Reading Panel report had just come out and a wealthy Mississippi couple who had started an institute to improve reading in the state wanted to know – were teacher preparation programs in Mississippi teaching what was in the National Reading Panel report? So their organization, the Barksdale Reading Institute, did a study. The study focused on the teacher preparation programs at the state’s eight publicly funded universities. The Institute reviewed syllabi and textbooks, surveyed the students in the classes, observed some of the classes, and interviewed the deans and faculty. Kelly Butler led the study.

**Kelly Butler:** Generally, I found that among the eight publics, you could go to any one of them and not necessarily be exposed to all five components of reading.

The National Reading Panel had identified five components of reading. They are: phonemic awareness, phonics, vocabulary, fluency and comprehension.

**Butler:** So you could go to an undergraduate program with the expectation you would graduate to be able to teach elementary education but not even know what the five components of reading were, much less how to teach them.

The two components most essential for learning to read – phonemic awareness and phonics – were basically absent. The study found that teacher candidates in Mississippi were getting an average of 20 minutes of instruction in phonics. Twenty minutes over their entire two-year teacher preparation program. Kelly Butler was alarmed. How were kids in Mississippi going to learn to read if their teachers were not learning the basics of the reading science in their teacher preparation programs?

(Music)
Kelly Butler and her colleagues at the Barksdale Reading Institute went to state education officials and said – you have to do something about this. And in 2003, in a rather extraordinary move, the state department of education mandated that every teacher preparation program in Mississippi require two courses on early literacy to cover what was in the National Reading Panel report. It was extraordinary, because, even though states have the authority to regulate teacher preparation programs, they rarely tell them what to teach in their classes. Higher education does not like to be told what to do. This is Kelly Butler again.

**Butler:** Professors pretty much have academic freedom to construct learning in the way they think best.

**Angela Rutherford:** Faculty members close the door and do whatever the heck they want to.

That’s Angela Rutherford. She is a faculty member – at the University of Mississippi. She works with the Barksdale Reading Institute, she knows the reading science, and she says a lot of her colleagues in teacher preparation programs don’t. They believe in whole language.

**Rutherford:** That’s what they believe. I had a colleague challenge me. And her question was, “Well, you know, what do you believe?” I said, “I believe what I see in research.”

Once, when Kelly Butler was talking to a dean about the reading science, the dean said to her:

**Butler:** Is this your science or my science?

Is this your science, or my science?

(Music)
That’s what Kelly Butler and her colleagues were up against. They wanted to change what prospective teachers in Mississippi were learning about reading. State officials did too. But Kelly Butler says many deans and faculty still believed in whole language.

**Butler:** Well fast forward to 2015 and we now have a Literacy-Based Promotion Act.

The state legislature had passed a law called the “Literacy-Based Promotion Act.” The law says that kids who are not reading on grade level by the end of third grade cannot move on to fourth grade.

**Butler:** What that precipitated was a retraining of teachers because we knew that teachers didn’t really know enough about what to do.

The teachers already working in Mississippi schools started learning the reading science. But what about the new teachers just graduating from teacher prep programs? If they weren’t learning the science, the state would be spending money forever training teachers. At this point no one really knew what aspiring teachers were actually learning in those required early literacy classes. So in 2015, the Barksdale Reading Institute decided to repeat the study it had done back in 2003. This time private colleges were included. Fifteen teacher prep programs overall.

**Butler:** The needle had moved some.

Kelly Butler says, with one exception, all the state’s teacher prep programs were now teaching the five components of reading. The deans and faculty all said they’d heard of the National Reading Panel report.

**Butler:** But most of them had not read it.

She learned other things that shocked her.
Butler: When I interviewed both faculty and students and asked them particular questions about the science of reading – for example, were they familiar with something called the Simple View of Reading?

That’s that formula scientists came up with to explain that reading comprehension is the product of your ability to decode text times all the words you know the meaning of.

Butler: Not a single one that I talked to had ever heard of the Simple View of Reading, which has been around since 1986.

(Music)

The science had been around for a long time. The state had been requiring colleges to teach the science for more than a decade. And still, prospective teachers weren’t learning it. So, the state legislature decided to do something else. It started requiring teacher candidates to pass a test on the reading science. If you don’t pass the Foundations of Reading test, you don’t get licensed to teach elementary school in Mississippi.

Harris-Allen: I’ll be the student.

Dixon: You be the student. OK. We’re going to start with phoneme isolation…

We’re back in LETRS training with the college faculty in Mississippi. They’re in pairs now working on phonemic awareness skills. This is Roshunda Harris-Allen and Trashonda Dixon – you heard them earlier.

Dixon: What is the first speech sound in the following words? Quiet

(laughter)

Harris-Allen: /k/ – /k/
Dixon: There it is (laughter)
Harris-Allen: I said it.

College faculty in Mississippi are not required to do LETRS training. But it’s in the best interest of those who teach the early literacy classes since their students will not become licensed teachers unless they pass the Foundations of Reading test. I interviewed several of the women in this training – they were all women. I was expecting to hear resistance and resignation about being here. But I didn’t.

Kim Smith: As I’m sitting in there I’m thinking – “Ah, I’m going to do this in class next week.” Or, “Oh man, I wish I had done that. I’m going to have to make a note, you know, to do this next semester.”

That was Kim Smith of Mississippi State. And this is Barbara Bowen of the University of Southern Mississippi.

Barbara Bowen: I feel blessed to be a part of this change.

They were elementary school teachers before they became college instructors. They didn’t know the reading science when they were teachers. And they’re grateful to be learning it now.

Bowen: I think that we all agree that this is right. Or best practices. And maybe we’re here because of that. And the whole language ones are not here because
Smith: Maybe
Bowen: I think they would really resist. (laughter) A lot.

The faculty who believe in whole language didn’t seem to be here. I had to look for them. I found two professors at the University of Southern Mississippi willing to talk to me.
**Stacey Reeves:** Ah, my name is Stacy Reeves. I am an associate professor of literacy and other areas of elementary ed.

**Mary Ariail:** I’m Mary Ariail. I’m a professor in the Department of Curriculum, Instruction and Special Education.

Mary Ariail had actually been the chair of the department until a few months before our interview. She and Stacy Reeves both told me they had no interest in going to the LETRS training. This is Stacy Reeves.

**Reeves:** I am philosophically opposed to jumping on the bandwagon of the next great thing that’s going to teach every child how to learn to read. Phonics for me is not that answer.

She says she knows this from her own experience. She was an elementary school teacher before she got her Ph.D. It was the early 1990s. Her students did phonics worksheets and then got these little books called decodable readers that contained words with the letter patterns they’d been practicing. Sentences like, “The bad rat hid in the tin can.”

**Reeves:** They were boring. They were repetitive. But as soon as I sat down with my first graders and read a book, like, “Frog and Toad Are Friends,” they were instantly engaged in the story.

She says she ditched the phonics workbooks and the decodable readers.

**Reeves:** And once I started teaching in a more whole way, a more encompassing way of the whole child – what does this child need? What does that child need? Let’s read more real books. Let’s write more real language about your life. Once I did that, my teaching improved, the students learned more, I feel. I feel they came out the other side much better.
Stacy Reeves says her students seemed more engaged but she admits she had no evidence they were learning better. One of the central tenets of the whole language movement is that teachers are best able to judge whether their students are learning – not standardized tests. Another key idea is that all children learn differently and need to be taught in different ways. But that’s not true with reading. Our brains are much more similar than they are different and we all need to learn the same things to change our non-reading brains into reading brains. Some of us learn to read more quickly and easily than others, but everyone reads in basically the same way. One of the most consistent findings in all of education research is that children become better readers when they get explicit and systematic phonics instruction. Decodable readers with letter patterns may be boring and repetitive for adults, but they help children learn to read. Mary Arial, the former chair of the curriculum and special ed department at the University of Southern Mississippi, remains unconvinced. She’s against explicit phonics instruction. She thinks it can be helpful to do some phonics with kids as they’re reading books. Maybe prompt them to sound something out, to notice a letter pattern in a word. But she thinks kids will be distracted from understanding the meaning of what they’re reading if teachers focus too much on how words are made up of letters.

**Ariail:** What it really does, it makes it harder. Because we’re trying to make meaning of it and when you’re teaching these meaningless symbols that it’s actually making it harder.

**Hanford:** So breaking it down into pieces makes it hard – makes it harder to learn to read?

**Ariail:** Uh, that’s the idea – that’s one of the ideas, the concepts behind whole language, is that when its meaningful, it’s easy. And when it’s broken down into little parts, it makes it harder.

**Hanford:** So, OK, so, so, from your perspective, how do kids learn to read?
**Ariail:** Well, I think, kids learn to read in different ways. Um, a lot of children come to school already reading because they have been immersed in print rich environments from the time they were born.

The underlying belief here is that reading comes naturally when children are read to and surrounded by books. Mary Ariail sees the effort to change reading instruction in Mississippi as an example of lawmakers telling educators what to do. And she doesn’t like it. She actually left her job shortly after our interview in part because of her frustration over what’s happening with reading in Mississippi. She told me she does not like the term “science of reading.”

**Ariail:** That’s one of the bones of contention. That the phonics-based approach is THE scientific approach. Um, it’s, it’s their science.

The belief that learning to read is a natural process that occurs when children are surrounded by books is a problem not just because there’s no science to back it up. It’s a problem because it assumes the primary responsibility for teaching children to read lies with families, not schools. If you are not fortunate enough to grow up in a household where there are lots of books and adults who read to you, you’re kind of out of luck. There is NO debate at this point among scientists that reading is a skill that needs to be explicitly taught by showing children the ways that sounds and letters correspond. Here’s Louisa Moats again.

**Moats:** It’s so accepted in the scientific world that if you just write another paper, another study about these fundamental facts and submit it to a journal they won’t accept it because it’s considered settled science.

(Music)
Moats: I think often of scientists in the area of climate change research. All of this information about climate change was readily available decades ago. And we still have prominent people in our government who are climate change deniers. It’s appalling.

Louisa Moats says it’s not just faculty and deans at colleges of education who resist the science. It’s also the publishing industry that continues to sell stuff that does not line up with what the science says. The American education system has bought into whole language – literally – and it’s hard to get rid of it.

Moats: Districts have spent so much money on this stuff that they may feel that their resources have been used up. And also, of course, the administrators who are responsible for making the decisions and spending the money want to defend their decisions.

She says educators convince themselves that what they’re doing is best practice. But if you believe that what you’ve invested in is the best there is when it comes to teaching kids to read and, still, more than forty percent of the students in your school district are struggling – what do you do? You blame the kids. You blame their families for not reading to them enough. You blame poverty. And then it’s no longer shocking that four in ten kids can’t read very well. It’s just the way things are.

(Music)

You might be thinking – if phonics and phonemic awareness are so important, and lots of schools are doing such a poor job teaching those things – how does anyone learn to read? It’s a good question. I asked lots of experts. Basically, it comes down to this. Some kids crack the code quickly and easily. Experts told me probably a third of children, maybe a bit more, don’t need much instruction. A parent points out some things about how words work, a teacher does a bit of phonics, the kid grows up watching Electric Company – like I did – and she’s off and reading.
**Silva:** It’s not as if some students, many students, can’t learn in ways that we taught reading before.

This is Jack Silva again, the chief academic officer in Bethlehem, Pennsylvania.

**Silva:** The question is, do you want all of them to be able to read?

(Music)

There is no evidence that phonics instruction is bad for kids – not even kids who crack the code easily. In fact, research shows good phonics instruction helps them become better spellers. This doesn’t mean that phonics is all kids need. Remember, according to that math formula, kids also need to know a lot of words and what they mean. And that’s why reading to children and surrounding them with good books is really important. The whole language proponents are absolutely right about that. But, as I said before, reading to kids and surrounding them with books is not the same as teaching them to read. According to the research, what you should see in every school is a heavy emphasis on phonics instruction in the early grades. Louisa Moats says the idea that this will make reading harder or somehow turn kids off to reading makes no sense. It’s the opposite. She says if schools do a good job teaching phonics in the early grades…

**Moats:** The kids read better, get off to a better start earlier, and they accelerate their progress faster and read more and like it better and so it becomes a self-reinforcing cycle. I can read, therefore I like to read, therefore I will read. Whereas the converse is true when you don’t give kids insight into the code and don’t arm them with insight into language, both spoken and written, what happens is: “This is a mystery. I’m not sure I’m getting what these words really say. Therefore, I’m uncomfortable. And therefore, I don’t really like it.”

(Music)
The kids who suffer most when schools don’t give their students insight into the code are kids with dyslexia. They have an especially hard time understanding the relationship between sounds and letters. If you’re a kid with dyslexia from an upper-income family, someone is probably going to notice that you’re struggling and pay for you to get the help you need. But what happens to kids from poor families? All you need to do is look at our nation’s prison population for an answer. Our prisons are full of people who grew up in poor families and according to a study of the Texas prison population nearly half of all inmates have dyslexia. Half. They struggled to read as kids, and probably never got the help they needed.

(Music)

If you were a kid who was able to crack the code with minimal instruction, you should count your lucky stars. But a question we should all be asking is: why aren’t we helping all kids learn to read?

(Music)

For Kelly Butler of the Barksdale Reading Institute in Mississippi, the main problem at this point is ignorance. Too many teachers, school administrators and college professors don’t know the science. She’s betting that teaching them the science is the answer.

Butler: Part of my optimism about this is – it’s not like we’re setting out to try to figure out how to teach reading and so we can then teach everybody how to do it. We know how to do it. So we just need to get ’er done. (laughs)

Mark Seidenberg is not as optimistic. He’s the cognitive scientist we heard from in the first part of the program. He’d like to believe that teaching the science would be enough to change minds. But he’s not so sure. He makes a comparison to climate change, too.
Seidenberg: And one thing that we’ve learned from climate change and the other issues over which we have polarization in this country is that facts aren’t the thing that change people’s beliefs. In fact, confronted with data that contradict deeply held beliefs, instead of bringing people closer together, it can have the paradoxical effects of entrenching them further.

If there is one fact that everyone can surely agree on it’s that kids need to know how to read. The stakes are really high here. The research shows children who don’t learn to read by the end of third grade are likely to remain poor readers for the rest of their lives. And they’re likely to fall behind in other academic areas, too. Right now, in this country, millions of kids are struggling. And so are teachers. Dozens of teachers I’ve talked to have told me they knew in their gut that the way they were teaching reading wasn’t working for a lot of kids. But they didn’t know what else to do. They felt helpless and guilty. They shouldn’t have to feel that way. Teachers need to be taught how to teach kids to read. The research is clear about how to do it.

(Music)

You’ve been listening to an APM Reports documentary, Hard Words: Why Aren't Our Kids Being Taught to Read? It was produced by me, Emily Hanford. The editor was Chris Julin with help from Catherine Winter. Special thanks to Emerald O’Brien, Tom Scheck, Liz Lyon and Tim Shanahan. Our associate producer is Alex Baumhardt. Our web editors are Andy Kruse and Dave Mann. The mix was by Chris Julin and Craig Thorson. Fact-checking by Betsy Towner Levine. Theme music by Gary Meister. The APM Reports team includes Sasha Aslanian, Executive Editor Stephen Smith and Editor-in-Chief Chris Worthington.

We have more about this story at our website including a documentary about how schools are failing kids with dyslexia. You can find it apmreports.org and on our podcast, Educate.
If you want more people to hear this program, please share it on social media and review it on your favorite podcast app. And if you have a story to share about reading, please write to us. The address is contact@apmreports.org.

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