

## Edward Kame'enui and Reading 101

Edward Kame'enui is one of the most influential reading experts in the country. He specializes in early literacy research and has much to say about how kids learn to read and the important role of parents and teachers in catching children who are having difficulty.

### Interview transcript

#### **Reading Rockets: Why have you devoted your career to studying reading education?**

**Edward Kame'enui:** My interest in reading education began as a child who had reading problems. I grew up in a family in Hawaii with Hawaiian parents. My dad was pure Hawaiian and my mom was Hawaiian Chinese. My mom was also deaf. So because of that background, I became very interested in reading and learning and schools and performance. It was that kind of background that led to my interest in reading education and education in general.

When you grow up on an island like Hawaii, it's a different perspective. My dad didn't graduate from high school until he was about 22 and all they had was a high school education in Hawaii. They didn't promote academics at all. And so there was no real interest in education. My dad was an electrician, my mom was a secretary. The assumption was that you could finish high school, stay in the islands, and the ideal case would be to become a policeman. That was the standard so that's what we did and that's the way we thought about things. I just happened to get a football scholarship to play football in the States and I thought well why not, let's do that. That's how I got started and broke away.

#### **RR: How does speech relate to learning to read?**

**EK:** Speech comes first in our development and kids have to recognize there is a relationship between speech and the writing system. Basically, they have to take the speech system and map that speech system onto the writing system.

One of the myths that we've had for a long time is that reading comes naturally – and it doesn't come naturally. There are a lot of bright kids in the world, a lot of bright kids in the United States who are of above average intelligence and the fact is they can't negotiate the alphabetic writing system. What that tells us is that we basically, as educators, as teachers, as practitioners, we are required to simplify that writing system, to make the writing system come alive for kids. And to basically reveal the print and to teach kids how to map the sound system onto the print system which means teaching the alphabetic code, alphabetic system, and the alphabetic writing system.

#### **RR: How important is early intervention?**

**EK:** A myth that we sometimes embrace in education is that kids in their development will catch up. That even as kids develop with their language skills, with their writing skills, that in time even though they may have a slow start, they may not have a successful stay in kindergarten and first grade, that over time they'll catch up and they'll make up the gap.

But all the research suggests that it's a serious issue that we need to start early and we need to treat the beginning years as a very important time, as a precious time to be in our interventions and to be in to teach kids to read. In the early years, we have to take advantage of those opportunities, that window of development because once that window closes it's very difficult to make up the gap. In other words, it's more difficult for a child who is eight or nine years old to make up any kind of developmental delay than it is for a child who is five or six years old.

We have to recognize that's a serious issue. Schools are absolutely unforgiving after third grade. And it's not because demands we place on children after third grade are dramatically different. Kids go from learning to read in kindergarten, first grade, and second grade to reading to learn in third grade and so on. It's very important that we recognize that when kids move from reading stories and storybook text to narrative text in third grade, they will shift to a different kind of linguistic environment, a different kind of text, expository text, informational text where the vocabulary words are very different, they're unfamiliar. Kids pretty much don't care about vocabulary that has to do with machines and friction and so on. So unless children are able to negotiate the alphabetic writing system or are able to read they're not going to get access to the informational text after third grade.

#### **RR: What have we learned from research about beginning reading instruction?**

**EK:** What we know from the research is that these early problems can be fixed, we can turn kids around. We can give them

the skills, we can give them the experiences, the strategies that allow them to negotiate the print on the page. To draw on their experiences and in time those kids will be successful readers.

But we have to do it systematically. We have to do it intentionally. We have to focus on things that are important. Not all things are equal in beginning reading instruction. And we have to put our emphasis and our instructional time on what we refer to as the big ideas in beginning reading which are: listening to the sound system, making sure kids have an understanding of the alphabetic system, alphabetic insight, alphabetic understanding, and then they become fluent with the code.

So at least three of those big ideas – phonological awareness, alphabetic understanding/alphabetic insight, and then automaticity with the code – are the three things that we emphasize in beginning reading. We ask teachers to emphasize them in beginning reading because those are the things that have been demonstrated to be most effective.

**RR: What is phonological awareness?**

**EK:** One of the big ideas in beginning reading #&150; and it's a big idea because it's very important #&150; is that of phonological awareness. Phonological awareness is an awareness of the sound system. It's awareness of speech. And speech is very elusive because when you speak, you can't see the white spaces between the words, so it's a very elusive system. It's not like beads on a string that you can track. What we know is that speech really primes kids to prepare for the writing system. So the speech system, awareness of sounds, being able to pull sounds apart, put sounds back together again and so on is an important big idea in beginning reading.

**RR: Why is phonological awareness important? And what is alphabetic understanding?**

**EK:** The reason phonological awareness is important is that it sets the stage for moving into the writing system. And what it does is prime kids for sensitivity to the writing system. It allows kids to understand that there is a connection between speech and writing.

If you grow up in Hawaii for example, you'll grow up speaking a kind of Creole, a pidgin. So if you say "bumbythebugilgonoverthere," you are saying speech sounds that are not represented in print. So you may think as you're growing up in an area of Kalehe in Hawaii that bumby is a word. Bumby is not a word. So unless you understand that the speech system has to be articulated so they can be represented in the writing system, you're going to grow up thinking bumby is a word when in fact bumby is really "by and by." It's important for kids to understand that there is a relationship between the speech that we produce and the writing system that we're going to read. So phonological awareness prepares kids for that writing system.

Alphabetic understanding is understanding that when you take speech and you map it into print, you have to map it into an alphabet. That when you say sounds, they can be represented in print. That's alphabetic understanding. Understanding that the alphabet stands for letters and that sounds and letters correspond. They go together. Then when we read, we read in an alphabetic writing system and we read the sounds, we read words and we use those letters to produce sounds and to read words. That's a very important part and it's a difficult part and it's a part that teachers tend to have a difficult time teaching because it has to be systematic, it has to be taught in a way that's very explicit so that we show kids, all kids, the relationship between the sounds they hear and the writing system. Showing them that relationship is very, very important.

**RR: What is automaticity?**

**EK:** A big idea is automaticity with the code, which means providing children with opportunities to practice reading in such a way they become fluent with the text. They become automatic, it's effortless. They don't have to spend any kind of energy really reading and moving through the text. They're able to look at words and read words fluently. They're able to look at letters and be able to call up the sounds. They're able to look at multi-syllabic words and read them. They're able to read those multi-syllabic words in context.

But all of that is done with a great deal of effort initially. All of that requires the teacher to arrange the environment, the linguistic environment, the teaching, in such a way that we provide children with the kind of support they need to become automatic with the code. Which means that we have to arrange certain tasks in a certain way so that we ease kids into the complexity. So that they read certain words and certain word types first, and then other more complex word types later, and so on. But it requires a great deal of practice and it requires engaging kids in motivational kinds of activities and structuring the environment and the tasks in such a way that they get the ample practice that's necessary.

**RR: Why is fluency so important?**

**EK:** The reason we want children to be fluent with the code, with reading, is that they spend a great deal of energy. They spend a great deal of time focusing on the individual letter/sound correspondences, the words, and so on. They won't be able to get through the text and comprehend the text.

We know there is a robust, a high correlation between reading fluency and reading comprehension. In fact the correlation is  $+.80$  which means it's a very robust relationship.

If reading comprehension fails, typically it fails because children are not able to do that kind of reading of words, word recognition is in jeopardy. They're not familiar with the sounds of the language. They don't have the phonological awareness they should have. They're not familiar with the writing system in such a way that they can read fluently. What we want to do is make sure that all the basic foundational skills with word reading, with phonological awareness, with alphabetic understanding are intact before we move into getting kids to be fluent with the text. So we want to build on those foundational skills.

**RR: What role can parents play in their kids learning to read?**

**EK:** I think parents can play an enormous role. One, is obviously they support their children. For children who are very young to engage in reading storybooks, play word games, a lot of vocabulary kinds of things, talking to their children. A lot of language production, language engagement. All of those things are very important.

But the other role that parents can play is to continue to demand the most of the educational system. Continue to demand that schools rely on research, rely on scientifically based practices to make decisions for their kids. I think, for me that's what parents can do, insist that education rely on the scientific knowledge that it ought to rely on as opposed to people's opinion about what's effective and that works for kids.

**RR: How important is ongoing monitoring of students?**

**EK:** An essential ingredient to kids' successful reading is a progress monitoring system that gives teachers information about how kids are doing on a daily basis. This means there are ways to take stock of children's reading on a daily basis to tell us whether or not kids are not just learning but whether or not they're learning enough. Now this is fairly new technology. We use a system that allows us to take a snapshot, a one-minute snapshot that tells us whether or not kids are making progress on the big ideas in beginning reading. And that kind of system is in contrast to a standardized reading test that gives us a snapshot of how kids are doing once a year, maybe twice a year.

In the absence of a progress monitoring system, what we're doing is we're asking teachers to teach reading but not assess on an ongoing basis how children are doing. So the progress monitoring system is absolutely critical. It's critical because it tells teachers whether or not they're on track, whether or not the interventions and the investments they're making in terms of instruction, in terms of curriculum programs, in terms of activities are the best investments and are the best intervention for kids. We don't want to start a program in September and wait until June to get a sense for whether or not we're successful. We want to start in September, the beginning of November, every month we want to have some sense of whether or not the investment we're making, the interventions we're using are effective for kids. We can't do that without progress monitoring systems.

**RR: What is this one minute test?**

**EK:** Progress monitoring is using a one minute measure. For our purpose, it's called the Dynamic Indicators of Basic Early Literacy (DIBELS). DIBELS is a system that allows us to get an indication of whether or not children are on track. Basically, what we're doing is we're taking a one-minute snapshot of their phonological awareness skills. We're taking a one-minute snapshot of their alphabetic understanding skills. And we're taking a one-minute snapshot of their rate of reading. All of those indicators are valid, reliable, sensitive indicators. We use those indicators because they're sensitive to change over time and they're very robust predictors of how kids will do down the road.

In other words, I can take a one-minute snapshot of a child in kindergarten and tell you whether or not that child will be a successful reader by the end of grade one, by the end of grade two. I can take a one-minute snapshot of a child in first grade and tell you whether or not that child will be successful at the end of grade three. All of these indicators when you add them together give us a trajectory that allows us to make predictions about whether or not a child will be successful down the road.

**RR: Why do some kids struggle with reading?**

**EK:** There are a number of groups that we identify when we talk about kids who are really struggling with the writing system, the alphabetic writing system, struggling in beginning reading. We call them diverse learners. We call them children identified with learning disabilities, children with dyslexia, and so on. What all of these children have in common is that fact that they're not able to negotiate the alphabetic writing system. For some reason, whether it's organic or whether it's experiential or whether it's familial, whatever it is, they're not able to get access to the written code.

What the research tells us is that what we need to do is give children access early on. Give them the experiences in kindergarten, even before kindergarten where they understand that they can get access to the writing system. They had the language experiences, they understand what reading is about. They had the insight about reading and so on.

What all of this says is that prevention is critical and early intervention is critical. We know that prevention is superior to any kind of subsequent intervention. If we start early, intervene early, give a sustained focus to, and a systematic approach to beginning reading we can turn these kids around. I think the literature is very clear about that.

So it's not necessarily about whether or not you grow up in an area of Hawaii from which you don't have a lot of experiences or whether you grow up in New York. The fact is I think you, we, schools can make a difference and they can make a difference early on.

**RR: What does dyslexia mean?**

**EK:** Dyslexia means a lot of different things. If you go back to the literature, dyslexia was first coined a long time ago. It means word blindness. So if you take it literally, it means that you're not able to get, make visual contact with words, you're not able to see words.

But together we use the word in a lot of different ways and dyslexia now in some cases refers to kids who are not able to read. They twist symbols, they reverse words, they reverse letters and so on. It tends to have a different meaning today. But it's clear that there are some kids who are not able to get access to the written word because of some kind of phonological deficit. There's a core phonological deficit where they can't hear the sound system and they can't take the sound system and map it on to the print. But I would argue that group is a very small group, it's a very small percentage of kids who can't do that.

**RR: Why does instruction have to be systematic?**

**EK:** Moving children from reading individual letter/sound correspondences where they're looking at a particular letter and then producing the sound for that letter to reading letter combinations, vowel combinations, digraphs, even more complex word types... has to be done with care. Because the bigger the linguistic units, the more likely the kids are going to have problems with it.

We can do that systematically, we can do that in a way that's very supportive of children. We can build that scaffold and mediate the scaffold such that we can introduce certain sound types first before we introduce more complex sounds, etc. We introduce common sounds before less common sounds. We introduce continuous sounds before stop sounds. We introduce certain word types that begin with continuous sounds before introducing other word types that begin with stop sounds, etc. So there is a sequence, there is an architecture that we can attend to that will be very supportive of kids as they move into more complex reading.

**RR: What is fluency?**

**EK:** Fluency is both a way of indexing, getting a sense for how kids are reading and whether or not they're being successful. But it's also an outcome, it's also something we want to strive for. The way to think about it is think about kids doing a motor test, think about kids riding a bike. Once you start riding a bike you need enough momentum on the bike to be able to gain speed. And once you gain speed then you're off and you're rolling assuming you can do all the other things that are necessary to riding a bike.

Fluency is no different. You have to have some momentum with the text and it carries you along. If you're not facile with the text, if you're not reading the text in a way that you can move through the individual letters and so on, then you're not going to be fluent and most likely you're not going to comprehend.

**RR: How can research improve reading instruction?**

**EK:** We haven't had in the past the kind of science that we can rely on. I think the way to neutralize the pendulum swings in reading instruction is to continue to rely on solid science. I mean, that's what happened in medicine, that's what happened in other disciplines. We have ten years of research that we can draw on. What's critical is that we continue to invest in these ten years of research. In fact, I would argue that we need to establish a registry of knowledge. Not unlike what's done in chemistry where we register the knowledge base so that we can continue to rely on this foundational knowledge. I think that will give us a chance to establish education as having some reasonable science to draw upon to make decisions about kids' lives.

Edward Kame'enui is professor and director of the Institute for the Development of Educational Achievement (IDEA) at the University of Oregon. He served on the Committee on the Prevention of Reading Difficulties in Young Children of the National Research Council and heads the assessment committee of the Reading First Initiative. He is also a member of Reading Rockets' project advisory panel.

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