Sold a Story: Discussion Guide

Season 2: Episode 1

This guide provides some possible points of discussion for educators, parents, community members and students who listen to *Sold a Story* Season 2 from APM Reports.

For each episode, there are questions for before, during and after listening. You will also find suggestions for things to read and activities to extend the conversation.

As you listen to each episode, think about:

- What moments and ideas in this episode stood out to you? Why?
- What challenged you? What surprised you? Why?
- What in this episode resonated with your own experience?
- What questions do you have?

Episode 1: It's Not Just Reading

In the 1960s, an education outsider named Zig Engelmann begins challenging conventional ideas about what young children can learn. He teaches his 4-year-old twins basic algebra. But he has a hard time getting anyone in education to take him seriously, until a professor gives him a chance to see if his ideas will work in a classroom.



Episode Length	Listen to the episode	Read the transcript
20:47	Apple Podcasts • Spotify • soldastory.org	Printable Transcript
Additional Materials	• Video: Zig Engelmann teaches math to preschoolers in 1966 (clip from 2:58–6:33) • Video: Who was Direct Instruction creator Zig Engelmann?	

Before Listening	If you listened to Season 1 of *Sold a Story* • What moments stuck with you from that season? • Season 1 focused on an idea about reading that turned out to be wrong. How would you explain that idea to someone who hasn't listened to the podcast? • What are you hoping to hear in this new season?
While Listening	This episode is an introduction to the new season. Notice what you wonder and what you feel

	as you listen.
After Listening	*From a teaching perspective:* We hear from teachers in this episode: > Teacher 1: "I've literally been told by my district that I should not be teaching math. I should be facilitating math." > Teacher 2: "I was told very clearly that we are just there to present them with materials to explore. They can teach themselves." > Teacher 1: "The children should be discovering math principles and teaching each other." > Teacher 3: "Everyone is repeating this mantra of like — inquiry learning is best. And the majority of our kids are two to three grade levels behind." ● How are these messages about teaching similar or different from what you've heard? ● How is "facilitating" different from teaching? Zig's guiding principle was: > "When a student doesn't understand something, it's probably not the student that's the problem — it's probably the teaching." ● Do you agree or disagree? Why? *From a parenting or teaching perspective:* During the lesson about telling time, Zig was frustrated with Eric's answers until he understood the cause of his son's confusion. ● Can you think of a time when a child had a logical misunderstanding? What happened? *From a community perspective:* Emily says, > "The kids in this preschool classroom in 1966 were defying all kinds of expectations. Not just because of what they were learning, but because of who they were. They were Black children from a poor neighborhood. And a lot of people at the time — and still today — expected poor, Black children to struggle in school." ● What came up for you when you heard this? *From a student perspective:* Yolanda says about her teacher, Zig Engelmann: > "He was firm. He meant business. You know, it was, we're here to learn, OK? And I'm going to teach you children, you're going to learn. And this is why we're here. We're not here for any other reason but to learn." ● Would you like to be taught by a teacher like Zig? Why or why not?

Wrap Up	In this season, we're going to learn more about Zig Engelmann: "A man who believed all kids could learn, if they were taught. He believed deeply in the power of instruction." • What, if anything, had you heard about Zig before this episode? • What do you think it means to "believe deeply in the power of instruction"?
Extend	*Activity 1* Watch the 1966 video of Zig Engelmann teaching math to preschoolers (specifically minutes 2:58–6:33) VIDEO Count the number of math problems the class solves or the number of responses students give in this roughly 3 and a half minute clip. • What do you notice about student engagement? • What words would you use to describe the instruction? *Activity 2* Compare ideas from Seasons 1 and 2 of *Sold a Story*. In Season 1, we heard from teacher Carrie Chee: "What I'm haunted by is when it wasn't working, I blamed it on children." In Season 2, we meet Zig Engelmann, who said: "If they made a mistake, it was probably my fault." • What went through your mind when you heard these two quotes? Do they bring to mind anything from your own experience?

Sold a Story: Discussion Guide

Season 2: Episode 2

Episode 2: The Remedy Is Always Teaching

At an experimental preschool in Illinois, Zig Engelmann and his colleagues begin turning his ideas into a classroom teaching method. Along the way, they make a series of discoveries about effective instruction. Their mantra: "If the student hasn't learned, the teacher hasn't taught."

S2 EPISODE 2

Episode Length	Listen to the episode	Read the transcript
27:36	Apple Podcasts • Spotify • soldastory.org	Printable Transcript
Additional Materials	What is Direct Instruction? Video • Article	

Before Listening	In this episode, we'll hear about Direct Instruction. We'll also hear about a different approach, commonly referred to as discovery learning. • What comes to mind when you hear those terms? • What do you think they look like? Sound like? Feel like?
While Listening	What does Zig believe about teaching and learning? Listen for what he says and what he does.
After Listening	This episode covers several principles of learning: ➢ "The curse of the expert" makes teaching hard ➢ Children can learn "misrules" ➢ Carefully sequencing instruction matters ➢ Contrasts — showing what something is not — can deepen understanding • Which of these principles caught your interest? Why? *From a teaching perspective:* Kurt Engelmann compared a teacher's script to an actor's script. Emily explained: "You're

	reading the lines, but you make them your own." Doug Carnine, who worked with Zig, likened it to an orchestra conductor's sheet music: > "They get to the point where they can almost lead the orchestra. I mean, they'll always be flipping through their music, but in a way they have internalized that to an incredible degree." ● Have you ever taught from a scripted lesson? What was it like? ● Should teachers be both the composer and conductor of their lessons? Why or why not? In this episode, we learn how Direct Instruction lesson plans were developed, tested and revised: > "The schedule was that we would teach and then after we would sit down for about half an hour and figure out what we did that was wrong and what was sloppy and what we had to change and what we were going to do tomorrow." ● How are your lesson plans developed? What is the process for testing and revision? *From a parenting perspective:* Zig said: > "The main goal of effective instruction should be to use time with desperate efficiency. I mean, treat time as the most precious product you have." ● What would it look like for your child's teacher to treat instructional time as "the most precious product" they have? ○ What would you want to see, or not see, in the classroom? We learn about the schedule at the preschool: > "The children came to preschool for just two hours a day. One hour was games, art, snack and music. The other hour the children were divided into small groups. And they got formal lessons. Twenty minutes of math instruction. Twenty minutes of reading instruction. And twenty minutes of language instruction." ● What does the schedule tell you about what Zig valued? ● Would you want this schedule at your own child's preschool? Why or why not? *From a community or student perspective:* Linda Carnine says the kids were excited because "it's gonna be hard," and then they "feel so good about themselves" when they did it. ● Think of a time when something at school was hard for you. Were you successful? How did you feel?
Wrap Up	● What have you learned so far about Direct Instruction?

	• What has surprised you? What do you still want to know?

Extend	*Activity 1*
	
	Five things to know about Direct Instruction are explained in this video: What Is Direct Instruction?
	
	1. Choral response
	2. Individual turns
	3. Immediate corrections
	4. Repetition and practice
	5. Scripting
	
	VIDEO
	
	Pick one of the five to watch for as you view the video.
	
	• What did you notice about how students participated in the lessons?
	  ○ What did you notice about choral responses, individual turns, or corrections? How did they help students learn?
	• What did you notice about the teaching in Direct Instruction?
	  ○ How did repetition and scripts affect the pace of the lesson?
	• What else did you notice about Direct Instruction?
	• Were you surprised by anything you saw or heard?
	
	Activity 2
	
	In this article, What Is Direct Instruction?, two additional principles are explained:
	
	- If a concept is communicated faultlessly, there is no room for mislearning.
	- Every child can learn, if they're taught well.
	
	ARTICLE
	
	• How do these two ideas fit together? How does one idea support the other?

Episode 3: The Forgotten Experiment

Zig Engelmann gets the chance of a lifetime: Put Direct Instruction to the test in one of the largest education experiments ever conducted. The results could have changed the direction of American education. Instead, they're contested — and ultimately cast aside.

S2 EPISODE 3

Episode Length	Listen to the episode	Read the transcript
31:17	Apple Podcasts • Spotify • soldastory.org	Printable Transcript
Additional Materials	• Article: Critics called Direct Instruction rigid and joyless. Former students remember something very different • Video: The biggest education experiment you've never heard of	

Before Listening	• Have you heard of Project Follow Through? If so, what do you know about it?
While Listening	Listen for what Project Follow Through was trying to accomplish and what happened.
After Listening	*From all perspectives:* Project Follow Through showed: ➢ On average, Direct Instruction outperformed all the other models. ○ Direct Instruction did especially well on its primary goals: math, reading and spelling skills. ○ Direct Instruction did well on things like abstract reasoning and problem-solving. ○ Of all the models, Direct Instruction had the highest scores on measures of self-confidence and how kids felt about school and learning. ➢ Like the other models, the Direct Instruction results varied across school sites. • Do these results surprise you? Why or why not? • Why do you think Direct Instruction works well for children? ○ Why is Direct Instruction off-putting to some adults? Gene Glass said: "The best education starts with the interests, the motivations, the curiosity of the children. Sit down with the child, find out what the child is interested in. Let the child bring his own book, the book he loves. See if he can read. See if he understands."

	• What did you think when you heard that? • Do you view education more like Zig Engelmann or Gene Glass? Why? • Why is it hard to reach consensus about what actually works in education? Zig Engelmann explained that people who object to Direct Instruction might think: "Direct Instruction is at odds with my model of the mind and learning, which is built around discovery. If I accept data showing that (Direct Instruction) works, I will have to acknowledge that discovery and my model of learning is flawed." • Have you ever reconsidered a belief about teaching and learning? What happened? *From the student perspective:* • What are some different ways your teachers have taught you? (For example: Letting you figure things out on your own, teaching you step-by-step, having you work on projects?) • Which ways of teaching have helped you learn the most? Why? • Why do you think students taught with Direct Instruction might have liked it?
Wrap Up	Project Follow Through was intended to follow through on the promise of Head Start and to find out: *How could school become a more powerful tool for helping kids get out of poverty?* • What do you think (or hope) might happen now that people are learning about Project Follow Through?
Extend	***Activity 1*** Read what students from Project Follow Through had to say about their experience in the article, Critics called Direct Instruction rigid and joyless. Former students remember something very different. • What surprised you? ARTICLE In the podcast, we heard about Gene Glass's reaction to Direct Instruction: "He watched a lesson for about 10 minutes. And he didn't like it. It seemed to him like the kids were being tormented. That was his word. Glass: I think performance and achievement and outcomes depend so much on things other than shut up, sit still. Gene Glass had nothing good to say about Direct Instruction." • What do you make of the differences between how students described Direct Instruction and how Gene Glass reacted to it?

Activity 2

Read Why America's massive educational experiment didn't transform schools.

ARTICLE

- What surprised you?
- How would you explain why the results of Project Follow Through were not disseminated?

Even though Direct Instruction came out on top, the government gave more money to the programs that hadn't worked so schools would have more options.

- What options would you want schools to have when it comes to instruction?
- What would you like to happen now?

Episode 4: What Can You Do For My Black Children?

In a poor, Black neighborhood in Houston, principal Thaddeus Lott transforms a struggling elementary school with Direct Instruction. Soon, his students are outperforming students at much wealthier schools. The results are so remarkable, some people think it's too good to be true.

S2 EPISODE 4

Episode Length	Listen to the episode	Read the transcript
27:06	Apple Podcasts • Spotify • soldastory.org	Printable Transcript
Additional Materials	• Video: The Secret to Wesley Elementary's Success • Video: Primetime Live - Direct Instruction and Wesley Elementary (1991)	

Before Listening	• What have you heard about the link between poverty and student achievement?
While Listening	Make note of the kinds of things that students at Wesley Elementary learned.
After Listening	*From all perspectives:* Wesley served students from a predominantly Black neighborhood in Houston where many families lived in poverty. It became one of the highest-performing elementary schools in Texas. • What did you notice about what students at Wesley were learning? • What surprised you about the experiences of students and teachers? • What was your reaction to the allegations of cheating? *From a parenting or community perspective:* A pastor said of district administrators: "We understand that they would rather the best schools be in an affluent area. But the bottom line is, gold is gold, I don't care where you mined it. Even if it's in Acres Homes." • What stood out to you about the pastor's words? • How have your experiences with schools shaped your understanding of the expectations schools have for children? *From a teaching perspective:* • What aspects of the teaching environment at Wesley appealed to you? • What might you find challenging about teaching there?

	From a student perspective: • How can you tell when a teacher believes in you?
Wrap Up	• What did you take away from the rise and fall of academic achievement at Wesley Elementary?
Extend	*Activity 1* Watch the Primetime Live - Direct Instruction and Wesley Elementary (1991) program that you heard excerpts of in the podcast. The video shows Direct Instruction in action at Wesley and explores the cheating allegations in greater depth. As you watch, pay attention to the resources available at Wesley and support from corporate sponsors. • What did you notice about the resources, support and broader school district context in which Wesley operated?  At the end of the video, Principal Lott says: "We have too many people who have low expectations of students — too many people who really don't think that children in a setting like this even have the brains or ability to learn. The truth about them is that they can and that's what we've proven." The video is from 1991. • What has changed — and what hasn't — when it comes to our understanding of effective instruction? • What has changed — and what hasn't — when it comes to our expectations of children growing up in poverty?

Episode 5: Why It Works

Direct Instruction has decades of research behind it, but what makes it work? We dig into Zig Engelmann's theory of instruction, what cognitive science reveals about how children learn and what hundreds of studies show about the program's effectiveness.

S2 EPISODE 5

Episode Length	Listen to the episode	Read the transcript
24:19	Apple Podcasts • Spotify • soldastory.org	Printable Transcript
Additional Materials	• Article: When it comes to evidence-based programs, nothing matches Direct Instruction • Article: 10 Rules for Designing Effective Learning	

Before Listening	• What evidence would convince you that a program or teaching approach works?
While Listening	As you listen, jot down anything that makes you think that Direct Instruction is or isn't effective.
After Listening	*From all perspectives:* In this episode, we heard about Zig's theory of instruction, findings from cognitive science and the results of hundreds of studies examining Direct Instruction's effectiveness. • What do you want to remember about the research presented in this episode? • What evidence did you find most convincing? Why? • What questions do you still have?
Wrap Up	• What do you think schools should prioritize when deciding whether to use a program?
Extend	*Activity 1* Read When it comes to evidence-based programs, nothing matches Direct Instruction, which summarizes decades of research on Direct Instruction and includes links to studies. Consider taking notes as you read. • What words or phrases in the article did you take note of? • What did you find most compelling? Much of the research on Direct Instruction is decades old. The article ends with this quote from Cathy Watkins: "Penicillin was invented a long time ago, too. But it still works."

ARTICLE

- What do you think about the policy of the What Works Clearinghouse to generally exclude studies that are more than 20 years old?
- Do you think the age of a study should affect how much weight we give its findings? Why or why not?

Activity 2

In the episode, we learned this:

> "Direct Instruction could have a powerful effect on one of the biggest and most stubborn problems in American education: the achievement gap. That's the persistent difference in average academic achievement between kids from poor families and their higher-income peers.
>
> What [Stockard's] analysis showed is that — when Direct Instruction is done really well — the gains can be as large as that gap.
>
> In other words, Direct Instruction has the potential to erase the achievement gap."

From a student perspective:

- Have you noticed that school is different for kids whose families have more money and kids whose families have less money? What have you seen?

From a parenting perspective:

- Have you seen evidence of the achievement gap at your child's school? What have you noticed?
- Do you think your child's school experience would be different if the achievement gap disappeared? In what ways?

From a community perspective:

- How might the workplaces in your community be different if there were no achievement gap?

From a teaching perspective:

Carl Hendrick said, "You can't really connect the dots if you haven't got any dots."

- Can you think of a time when a lesson expected students to "connect dots" they didn't have? What happened?
- How would your job be different if there were no achievement gap?

Activity 3

Read Carl Hendrick's article 10 Rules for Designing Effective Learning. Hendrick describes 10 principles he took from reading "Theory of Instruction" by Zig Engelmann and Doug Carnine.

- Which principle would you want to share with a colleague or friend? Why?
- How do these principles connect to what you've heard in the podcast about Zig's approach to designing and testing lessons?

ARTICLE

The article concludes with Hendrick's reflections on what these principles mean for teaching.

> "Once we know how learning really works, we become morally obligated to design instruction properly. Once we understand human nature, we're responsible for creating systems that honour rather than violate it."

- What do you make of Hendrick's argument that educators have a moral obligation to design instruction around how people learn?
- How much should teachers' preferences guide lesson design? Why?

Consider this passage from the Hendrick article.

> "Faultless communication removes guesswork from the learner's side and places full responsibility on the instructional design. If students fail to learn, it is not because they are inattentive, lazy, or incapable. As Engelmann and Carnine put it: 'If kids mislearn, the fault is in the design, not the learner.'"

- Hendrick calls this a hopeful message. Do you find it hopeful? Why or why not?

Episode 6: Get Ready!

Zig Engelmann's Direct Instruction has a strong evidence base. So why is it so hard to find in schools? We look at why schools keep giving it up and visit a charter network in North Carolina that's stuck with it for more than a quarter century.

S2 EPISODE 6

Episode Length	Listen to the episode	Read the transcript
27:41	Apple Podcasts • Spotify • soldastory.org	Printable Transcript
Additional Materials	• Video: Scripted lessons make teachers cringe. Should they? • Article: Direct Instruction doesn't last in schools. Here's why	

Before Listening	• Is there anything you've heard so far this season that you want to be sure to talk about? • What are you curious to hear other people's thoughts on?
While Listening	In this episode, we visit a school that has been using Direct Instruction for decades. Then we learn why so many schools that adopt the program eventually drop it. As you listen, note what stands out to you and what questions you have.
After Listening	*From a teaching perspective:* In this episode, we heard Direct Instruction being used in classrooms today. Teachers explained the reasoning behind choral response, repetition and frequent questions. • Do you use techniques like these in your own teaching? • Did hearing the teachers explain their approach influence how you think about these techniques? *From a parenting perspective:* Parents in this episode described how Direct Instruction has helped their children. One parent said the back-and-forth between teachers and students was exactly what her daughter needed. • What stood out to you about the parents' experiences? • What do you believe works for your own child's learning? Why do you think that? *From a student perspective:*

	The students Emily interviewed described their school as "stable." They said they like the structure and the challenge. One student described the teaching as "much more clear." ● Have you experienced highly structured instruction? ○ What was the experience like? Did it help you learn? Why or why not? *From a community perspective:* In the second half of the episode, we heard about schools that adopted Direct Instruction and later abandoned it. Leadership changes, district politics, funding cuts and a lack of ongoing support all played a role. ● Have you seen anything similar happen in your school district? What happened? ● What can communities do to help schools sustain effective instruction, even when district leadership or priorities change? Throughout this season of *Sold a Story*, we've learned about lesson scripts and how they change the job of the teacher. In this episode, we heard: "If you go into teaching thinking it's your job to create your own lessons, the very idea of a script can seem like an insult. Like a violation of professional autonomy. Zig Engelmann's Direct Instruction requires rethinking what it means to be a teacher. Teachers do not design their own lessons. That job has already been done. The teacher's job is to focus on the teaching." ● What do you make of this idea? How does it compare to your understanding of what teachers do or should do?
Wrap Up	● What did you learn about why schools stop using Direct Instruction? At the end of the episode, Emily said: "It's kind of like Direct Instruction is a foreign object in the American education system. The system keeps rejecting it." ● What do you think she meant by that? ● What would it take for the system to adopt and stick with something like Direct Instruction?
Extend	*Activity 1* Watch the video Scripted lessons make teachers cringe. Should they? ● What reasons did you hear for why teachers *shouldn't* cringe at scripted lessons? ● Do you find those reasons convincing? Why or why not? Consider sharing your thoughts on this topic with Emily by sending video 

	of your discussion or emailing her at soldastory@apmreports.org. *Activity 2* Read more about why schools have a hard time sustaining Direct Instruction in the article Direct Instruction doesn't last in schools. Here's why. The article includes a list of patterns that emerged from interviews with districts that dropped Direct Instruction. ARTICLE ● Do any of the reasons surprise you? Why or why not? Hailey McCarthy, a principal who appears in both the podcast and the article, explains the struggles she had and the help she needed when learning Direct Instruction. ● Why might Direct Instruction be hard to learn? ● What do you think it would take to support implementation of Direct Instruction?

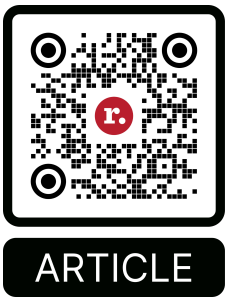
Episode 7: It's Up to Us

Direct Instruction has been rejected by the education system again and again. Why does something that works face so much resistance? And what does that tell us about ourselves? In the season finale, Emily offers some final thoughts. And we hear how Zig Engelmann viewed his life's work and what he left for others to do. Plus, some of the best podcast production credits you've ever heard.

S2 EPISODE 7

Episode Length	Listen to the episode	Read the transcript
38:33	Apple Podcasts • Spotify • soldastory.org	Printable Transcript
Additional Materials	Articles: • Five Meanings of Direct Instruction • Your state probably hasn't approved any Direct Instruction programs. Why not? • Stopping the pendulum: Making education a research-based profession • Principles of Instruction • Teaching Is a Big Enough Job Without Creating the Curriculum	

Before Listening	• What are you hoping to hear in the season finale?
While Listening	As you listen, notice the different explanations for resistance to Direct Instruction and what the episode says about the teaching profession.
After Listening	*From all perspectives:* Cathy Watkins says Zig Engelmann never claimed there is just one right way to do things: "He goes, 'I don't believe that at all. I think there are many right ways to do things. The problem is there are about a million wrong ways.'" • What did you think when you heard this? Do you agree? In this season, we've heard about: 1. Zig Engelmann's Direct Instruction programs 2. The generic version of direct instruction, also called "little d.i." or explicit instruction 3. Lecturing

	• How would you explain the differences? • Have you seen these terms cause confusion? What happened? Note: You may be interested in the article, Five Meanings of Direct Instruction. The author defines five overlapping uses of the term "direct instruction," including Zig's programs (which he refers to as DISTAR, their original name). • Has anything you've heard this season challenged your view of effective teaching?  ARTICLE We learned that few state education departments recommend Zig's Direct Instruction programs to schools. • Were you surprised? What questions do you want answered about how those lists are created? Note: You may be interested in reading this article: Your state probably hasn't approved any Direct Instruction programs. Why not?  ARTICLE Doug Carnine and Carl Hendrick say that teaching doesn't have an agreed-upon body of professional knowledge. • Do you think it's true? What makes you think that? • What would be different if teaching had a shared body of knowledge grounded in research? Note: If you would like to learn more about this topic, you might read Doug's article, Stopping the pendulum: Making education a research-based profession  ARTICLE
Wrap Up	The title of this episode is "It's Up to Us." • Why do you think that's the title? • After listening to this entire season, what do you think needs to happen next?
Extend	*Activity 1:* The article Principles of Instruction describes ten research-based principles. Read the whole article or divide the principles among members of your discussion group and share what you learn. • How would you summarize each principle? Consider jotting notes for each. • What connections do you see among the principles? How do they work together to support student learning? • What challenges might teachers face putting these principles into practice?  ARTICLE

Activity 2:

In this episode, Marty Siegel describes scripts as both Direct Instruction's greatest strength and also its biggest weakness.

Margaret, the teacher who helped write these discussion guides, once believed that scripted lessons were beneath teachers. Read her article, Teaching Is a Big Enough Job Without Creating the Curriculum, to learn how her perspective changed over time.

ARTICLE

- Why was teaching from a script a big adjustment for Margaret?
- How did her understanding of what it means to be a good teacher change over time?

At the end of the article, Margaret offers a wish list for supporting teachers at different stages of their careers.

- Which of the suggestions do you think would make the biggest difference? Why?
- What is missing from the list?

Activity 3:

Emily said:

> "I think there may be a lot of teachers out there who would be open to Direct Instruction. But they don't know what it is. They don't know about the research on it. And they haven't had a chance to learn how to do it."

Make a plan to find out how interested teachers are in learning more about Direct Instruction. You might have informal conversations, create a survey or find another way to gather the information. Before you begin, predict what you think you'll hear.

After collecting the information, discuss:

- Did teachers say what you were expecting them to say? What surprised you?
- What did you learn about why teachers are interested — or not — in Direct Instruction?

Consider sharing what you learned with Emily by sending a video or an audio recording — or emailing her at soldastory@apmreports.org.