Scratch Paper

Increasing the Achievement of Students with Disabilities
(and other students who struggle)

Table Activity: Write your answer below.

The Superintendent has called you to his/her office.

"We have to radically improve the achievement/learning of our students with disabilities in our school/our district. What should we do?"

Partner Activity

What is great instruction? (You only get 6 bullets. Write your answer below.)

1.	4.
2.	5.
3.	6.

Partner Activity

Each pair at the table should choose one of the elements of GREAT instruction below. Write 4-5 bullets that describe what that element should "look like" in classrooms. If you walk in a classroom, how would you know that the element is being implemented? Some of our descriptors might include activities that occur outside of the classroom like teacher data talks/planning sessions.

Guided by the performance standards.
Rigorous
Research-based instructional practices
Engaging and Exciting
Assessed continuously to guide further instruction
Tailored in flexible groups

Individual Activity: Read the following excerpt. As you do, highlight or underline 5 big takeaways.

Effective Foundational Reading Instruction

Our students with disabilities must participate in effective instruction practices in every classroom. In fact, all students need that. Foundational tier 1 or universal instruction is critical. Effective tiers of interventions or fantastic specially designed instruction, no matter how powerful, can never make up for ineffective universal instruction. Now, let's consider, as an example, effective universal instruction in reading.

Throughout my career in special education, I have had dozens and dozens of conversations with parents that go something like this. "My son Jeremiah is in 4th fourth grade, and he is not reading as well as his brother who is a second grader. I want him to receive special education services and the school is telling me that he does not qualify. How do I get him into special education?"

This conversation has other variations. Sometimes, a school recommends that a student who struggles with reading should participate in special education services, but the family disagrees. While some families are seeking special education services and other families are very tentative to accept such services, those concerns are not the core issue. The parents are worried because their child is having difficulty in learning how to read.

When you get that phone call or have that face-to-face conversation, and I am sure you do, how do you respond? Do you focus on the issue of special education eligibility, or do you address the underlying cause of concern: reading development? This is how I try to respond.

"Ms. Johnson, do you mind if we put the issue of special education aside for a few minutes? Let's talk about Jeremiah's reading development. Do you mind if I explain how children typically develop reading skills? I will also ask you some questions about Jeremiah as we have the discussion. My disclaimer is that I haven't had the chance to meet Jeremiah, so I am not speaking specifically about him, but talking in generalities.

"There are five big areas of reading development. When students are born, they immediately start to learn language. You started to talk to Jeremiah when he was born, and you continue to do so today. At first, he didn't understand the words, but over time he learned what some words meant and then started to use words himself. Every day, between birth through age four when he started pre-school and then kindergarten, his language and vocabulary exploded. He learned lots of words, their meanings, and how to use them.

"We see this development when young children understand what they hear and their talking becomes more developed. As he got older, he continued to develop language skills – both understanding what he hears and also having the ability to use a variety of words and phrases. When we talk about learning to read, we think of this as vocabulary development as one element of language development and it continues to grow and develop from birth through all school years and even after that.

Can I ask you a question? When you see Jeremiah with other children his age, does he understand language to the same degree as other children his age? Does he speak and use words and sentences at the same level as his same-age friends?"

If Ms. Johnson shares that Jeremiah doesn't understand or speak at a commensurate level of other children his age, then I ask more questions regarding language development. If Ms. Johnson shares that his receptive and

expressive language are commensurate to other children, then we move on to another component of reading development.

"When children are 3 or 4 years old, they really start to learn to play with words. You probably sat next to him on the couch and read nursery rhymes or silly books. When children are that young, they are not really processing the print. They are looking at the pictures and listening to the sounds of the language and the words.

"When you read a rhyming story, you would stress the rhymes. Eventually, children get used to hearing that pattern and start to anticipate the rhyming words. The first sentence you read might have ended with "bat." Then the next sentence ended with "cat." They might guess "hat" or "pat." It doesn't even matter if a child guessed the correct word; the youngster is learning to rhyme. He is beginning to understand that two words sound the exact same, except the first sound has changed.

"Then you read a silly story where many of the words started with the same sound. You may have read, 'Sally sold silly songs to Sue, Sarah, and Sam.' When you paused at the last word, the child might have guessed 'Cindy.' It doesn't matter that his guess wasn't the actual word in the story; he was starting to recognize that many words start with the same sound. If you noticed, I said the word 'Cindy.' When I said that word, you might have wondered why I chose a name that starts with the letter 'C.' Remember, I am not talking about letters, just the sounds in words. 'Cindy' starts with the same sound as 'Sally, silly, songs and Sue.'

"As adults, it is almost impossible to think about words and the sounds without thinking about letters. When children are that young, they only know the sounds and learn that different words are merely sounds placed in different orders. They have sound discrimination. We call that ability to discriminate and manipulate sounds, *phonological awareness*. Some people refer to it as *phonemic awareness* to mean the same thing, even though there is a technical difference in those terms. For our purpose, we can say they mean the same thing.

"A 'phoneme' is the smallest sound in the English language. In fact, English has about 44 different sounds in the language. That's it. All words in English are made of up those 44 sounds. For example, the word "pitch" ends with the /ch/ sound. Notice that I didn't say that the word ends with the letters c and h. The sound is /ch/ like you hear in the word chat." (When we write a phoneme, we put the corresponding letter or letters between forward slashes. So /b/ represents the b-sound, not the letter itself.)

"In order to learn how to read well, most children must build skills in listening and re-arranging these sounds. Phonological awareness, or the awareness of all of the little sounds that make up words, is critical for most students. Can I ask you some questions about Jeremiah? If you say the following words, "bat, cat, hat" and then pause for him to give you the next word, can he give you a rhyming word?

"If you give him several words that have the same beginning sound like "man, munch, more, many" and then pause, will he give you a word that starts with the /m/ sound? If you ask him to clap the word "dinosaur," can he clap out the syllables? That is another phonological awareness skill – the ability to hear the different syllables in words. Notice that none of these activities involve printed words. Phonological activities are done without looking at any written words or print. You only use your ears and your mouth.

"Let me tell you why that is important. At some point, usually when children are in pre-kindergarten, we start to introduce letters. A letter is just a symbol, just like a Chinese character represents a concept, a letter in English just represents a sound. The letter m represents the /m/ sound. The letter t represents the /t/ sound.

"The problem starts when we show students letters and say, "This is the letter p. It says /p/. If the student does not already know that the /p/ sound is only one sound in a larger system of sounds, then we have a problem. Even though the child may speak well and have a typical vocabulary, he might never have dissected words into

sounds in a way that helps reading development. So, when you say, 'what sound does that make' or 'sound out that word,' the student truly doesn't understand that there are tiny, individual sounds. He doesn't understand your question, and he can't explain that he doesn't understand. That lack of phonological awareness can be a big barrier.

"So far, we have talked about language development. For older students, part of that language is vocabulary development, one of the five dimensions of reading. We also talked about phonological awareness which is sound discrimination. The next skill needed in learning to read is phonics. That is when we start adding letters or symbols that represent sounds. At the beginning of this process, we tell preschoolers or kindergartners that this is the letter 'd' and it says the /d/ sound. Over time, we introduce all letters while we are putting short words together. We usually start with short words, such as cat, hat, dog, or Mom. Children slowly learn how to decode and read words based on saying the sounds of each letter.

"Very often teachers teach children how to read using word families. They may start with the –at family. They put the letter "h" in front and that makes the word "hat." Then the teacher adds the letter "c" and the students say the word "cat."

"Over time, a student's phonics or decoding skills grows from very simple, one-syllabus words to complex words that might have more than one syllable. Some children have difficulty with phonics, and their limited decoding ability can become a problem with reading development. Can I ask you another question Ms. Johnson? When Jeremiah sees a word he doesn't know, what does he do?"

At this point in the conversation, a parent might tell me that the child doesn't know what to do. He makes sounds with his mouth, but they are not even close to the letters in the words, or Ms. Johnson might explain that Jeremiah usually says the first sound correctly, but then just makes up different sounds to guess the rest of the word. At other times, a parent might say that her child sounds out most words effectively, but does so very slowly. Each of these answers might indicate different instructional needs.

"It can also get a little tricky. Many times, teachers might suggest that a child is having difficulty with phonics, or decoding, when in fact he is missing the underlying skill of phonological awareness. Sometimes, he has phonological awareness, but is truly having difficulty with phonics.

"The next domain of reading development is oral reading fluency. Once children gain phonic skills, they start to read sentences, paragraphs and stories. We want children to read orally with the appropriate speed and expression. We want his oral reading to be smooth, effortless, and have expression. For example, if the story says that a character whispers, we want him to whisper. If something in the story is exciting, we want his expression to reflect that excitement. We also want a child to chunk different phrases, or parts of sentences together. There is a fancy word to describe the appropriate rate and expression. That word is *prosody*. It means speaking in a conversational pattern – like we do when we speak to each other. We want children to read with the same pace and expression that they use when they speak with you. That is speaking with *prosody.*

"Unfortunately, some children read like robots. They might read one word at a time. Their reading is choppy and monotone. Such children pull words from the page, but only one at a time. They can decode the majority of words, but much of their energy is spent on the decoding process. They have little focus left to the actual meaning of the sentences or story. When a child reads in that halting way, they often don't comprehend what they are reading. They are devoting all of their thinking to decoding the words. They don't have the cognitive energy to think about what the passage is telling them.

"That difficulty with oral reading fluency often seems like difficulty with decoding, but sometimes it is not. It is difficulty pulling the words off the page automatically, without effort, or without fluency. The student's thinking energy is focused on the letters in the word, not the meaning in the text. Ms. Johnson, when Jeremiah reads, does he read like a robot, with a halting pattern?"

"The last domain is the real purpose for reading – reading comprehension. We want children to have a real understanding of what they read. All of the things that I have discussed so far – language development that translates, in part, to vocabulary development, phonological awareness, phonics, and oral reading fluency are just the building blocks to the real purpose of reading – to comprehend what we read.

"That goes from very simple in the latter parts of first grade where there are easier stories all of the way to the material that you and I read daily. We want children to know what the material means – what the material is about. At first, the stories are literal. Then, as children mature, reading involves more inference: the ability to detect and interpret meaning that is only suggested or implied, not openly stated in the story.

"You are concerned about your son's reading. I want to make sure that we have some steps in place to help him. As his educators, we must identify his specific needs and then prescribe the exact instructional activities that are targeting those concerns, just like a doctor who prescribes the right medicine for someone's illness.

"I know that you want (or don't want) your child to receive special education services. Whether he ultimately qualifies or doesn't qualify for those services, I want to make sure that we provide the right type of reading instruction that will help him become successful."

As this conversation continues with this parent, I tell them I am going to have someone from the school contact him/her to determine next steps. There are really two purposes for this conversation: First, I want the parent to have a general understanding of reading development because an informed parent is more effective at partnering with the school.

I also want to make sure that the main thing is the main thing. The mother is concerned about her child's reading ability. There certainly could be, and probably is, much more information to this situation. Whether or not the student later qualifies for special education, a student who has a reading deficit needs GREAT instruction that meets his needs. He needs quality instruction regardless of whether he experiences that instruction as part of an IEP or as part of general education. The most important thing is that we provide instruction that enables Jeremiah to become a proficient reader.

To be honest, this conversation should occur between *general education* personnel and the parent. We want all general education teachers in the primary and elementary grades to have great expertise in reading development. Unfortunately, that has not always been my experience. In addition, special education personnel who teach in our primary and elementary schools must *also* have great expertise, which is not always the case either.

It certainly does no harm for this discussion to occur between the Special Education Department and the parent. I have had this discussion dozens and dozens of times in my career, but all of the information discussed above really includes effective, universal reading instruction, not specially designed instruction.

Every primary and elementary grade teacher (general *and* special education personnel) should have a deep understanding of the five dimensions of reading – vocabulary, phonological awareness, phonics, oral reading fluency, and reading comprehension. (National Institute of Child Health and Human Development 2000). As part of the research-based core instructional program in every kindergarten through fifth grade class, teachers must be

able to determine students' needs, and how to implement effective instructional practices in each of those domains.

They also need the ability to explain the reading dimensions to parents. Almost without fail, the parents that I share this information with respond with, "Nobody has ever explained that to me." In some cases, they have searched for a number of years for answers regarding their child's reading development, and the professionals they have encountered have never articulated even the basics regarding reading development.

Partner Discussion: How would you respond if a teacher said this…

- ☐ **"On the kindergarten EIP Checklist, the students are supposed to break words into syllables, but I am giving them words they aren't reading yet."**

OR THIS…

- ☐ **"I have a group of 4th graders who are struggling with reading comprehension. Can you look at their oral reading record?" When I reviewed on student's file, he didn't read the following words correctly: disregard, ambition, stellar, questioning…"**

Discussion Activity: A few months ago, I observed a Middle School Reading Connections (Elective) class…

The students were chosen to participate in this class because they had weaknesses in reading. There were roughly 18 students in the classroom. They were completing an activity that asked them to break a list of words into syllables. The work for 3 of the students is below. At a quick glance, I realized that all 18 students had similar answers. At your table, discuss:

- ☐ What does the student work tell you?
- ☐ How does the work impact the next steps of instruction for the students?
- ☐ Why is this important?

Words	Lexie's Work	Thomas's Work	*Luke's Work*
mistake	mi stake	mi stake	*mist a ke*
Pencil	pe ncil	pe nc il	*pe ncil*
pendulous	pen dul ous	pen du lo us	*Pe nd ul ou s*
gigantic	gig ant ic	gig an tic	*gi ga nt ic*
Leaped	leap ed	leap ed	*le aped*
expresses	e xpress es	ex pre sses	*e xpress es*
Calculus	Cal cul us	Cal cul us	*Ca lc ul us*
general	ge ner al	gen e ral	*ge ner al*
indicative	in di ca tive	ind i ca tive	*ind i ca ti ve*
version	ver sion	vers ion	*ver si on*
dehydration	de hyd rat ion	de hy drat ion	*de hyd ratio n*
comparisons	com pa ris ons	comp par is ons	*comp par is ons*
honorable	hon or a ble	ho nor able	*hon or a ble*

Math quiz: You can work with a partner or as a table.

- What specific math skill is a common weakness across the U.S.?
- Should math instruction focus on conceptual understanding, problem solving or computational fluency?
- Should mathematics instruction be student-centered or teacher-directed?
- (T/F) Brain research has shown that there are truly "math people" and "non-math people" and someone who does not have the physiological makeup to be a "math person" will be limited in his/her math achievement.
- (T/F) Using "real world problems" during math instruction results in increases in all math domains.

Activity: Read the excerpts from the National Mathematics Advisory Panel to determine if the answers to your quiz are accurate. You can work in pairs or triads. You must cite textual evidence. (Note: The Panel made 45 recommendations. Only specific ones are provided below.)

4) A major goal for K–8 mathematics education should be proficiency with fractions (including decimals, percent, and negative fractions), for such proficiency is foundational for algebra and, at the present time, seems to be severely underdeveloped. Proficiency with whole numbers is a necessary precursor for the study of fractions, as are aspects of measurement and geometry. These three areas—whole numbers, fractions, and particular aspects of geometry and measurement—are the Critical Foundations of Algebra

10) To prepare students for Algebra, the curriculum must simultaneously develop conceptual understanding, computational fluency, and problem solving skills. Debates regarding the relative importance of these aspects of mathematical knowledge are misguided. These capabilities are mutually supportive, each facilitating learning of the others. Teachers should emphasize these interrelations; taken together, conceptual understanding of mathematical operations, fluent execution of procedures, and fast access to number combinations jointly support effective and efficient problem solving.

14) Children's goals and beliefs about learning are related to their mathematics performance. Experimental studies have demonstrated that changing children's beliefs from a focus on ability to a focus on effort increases their engagement in mathematics learning, which in turn improves mathematics outcomes: When children believe that their efforts to learn make them "smarter," they show greater persistence in

mathematics learning. Related research demonstrates that the engagement and sense of efficacy of African-American and Hispanic students in mathematical learning contexts not only tends to be lower than that of white and Asian students but also that it can be significantly increased. Teachers and other educational leaders should consistently help students and parents to understand that an increased emphasis on the importance of effort is related to improved mathematics performance. This is a critical point because much of the public's self-evident resignation about mathematics education (together with the common tendencies to dismiss weak achievement and to give up early) seems rooted in the erroneous idea that success is largely a matter of inherent talent or ability, not effort.

23) All-encompassing recommendations that instruction should be entirely "student centered" or "teacher directed" are not supported by research. If such recommendations exist, they should be rescinded. If they are being considered, they should be avoided. High-quality research does not support the exclusive use of either approach.

26) The use of "real-world" contexts to introduce mathematical ideas has been advocated, with the term "real world" being used in varied ways. A synthesis of findings from a small number of high-quality studies indicates that if mathematical ideas are taught using "real-world" contexts, then students' performance on assessments involving similar "real-world" problems is improved. However, performance on assessments more focused on other aspects of mathematics learning, such as computation, simple word problems, and equation solving, is not improved.

National Mathematics Advisory Panel. *Foundations for Success: The Final Report of the National Mathematics Advisory Panel*, U.S. Department of Education: Washington, DC, 2008. Retrieved from https://www2.ed.gov/about/bdscomm/list/mathpanel/report/final-report.pdf

Table Discussion: What is Specially Designed Instruction?