

## Using Direct Instruction to Teach a Nonvocal Student with Autism to Read Through Discrimination Training

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Extensive previous research has shown the effectiveness of Direct Instruction reading curricula for teaching decoding skills to students. Similarly, previous research has also shown discrimination training to be a highly effective teaching procedure. We combined these two areas of research to ask the question: Can we teach a nonvocal child with autism to decode using discrimination teaching procedures with direct instruction reading curricula? We found the answer to be yes.

Spencer is a nonvocal, 9-year old boy with severe autism who communicates through his augmentative communication device and gestures. He has no intact speech and can imitate only a very small number of sounds accurately. Spencer received prior fluency-based instruction on reading-related skills such as Hear/Touch sounds, Hear a Consonant-Vowel or Vowel-Consonant word/Type the word, and See word/Match to picture. Given the nature of his communication delays, we wanted to design an instructional program that would allow him access to the greatest variety of text in the most efficient instructional arrange-

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ment. Given his preference for and experience with spelling tasks, we wanted to try to teach Spencer to decode phonetically rather than through a sight-word-based approach.

Because Spencer lacked all of the required component speaking skills needed to benefit from direct instruction reading curricula, we created a modified instructional script that we based on the direct instruction curriculum *Teach Your Child to Read in 100 Easy Lessons*. This modified instructional script relied on discrimination teaching techniques rather than on Spencer producing sounds to indicate the correct answer. In the script, the teacher would say, "Tell me if this is right" and then he or she would read the sound, word, or sentence correctly or incorrectly. Spencer responded either "Yes" or "No" by touching the appropriate symbol on his augmentative communication device, depending on whether his teacher said the sound, word, or sentence correctly or incorrectly.

We tracked Spencer's progress through the curriculum by charting the number of exercises he completed per day during the designated 10 minutes of instruction. In addition, we counted the number of correct and incorrect responses he made during each 10-minute instructional session.

In a 10-minute session, Spencer completed between one and six exercises from the curriculum and typically responded between 20 and 60 times per 10 minutes (two to six times per minute). We required the instructors to provide correct and incorrect discrimination opportunities on each sound presented in isolation, on each phoneme within individual words, and on each word presented in each sentence. We also required his instructors to present Spencer with (a) correct models and (b) incorrect models that were both very similar to the correct models (close-in nonexamples) and very dissimilar from the correct models (far-out nonexamples). The number of responses Spencer expressed during any given exercise was a minimum of x3 the number of required responses in the original teaching script, because of the need to present Spencer with a full range of correct and incorrect models.

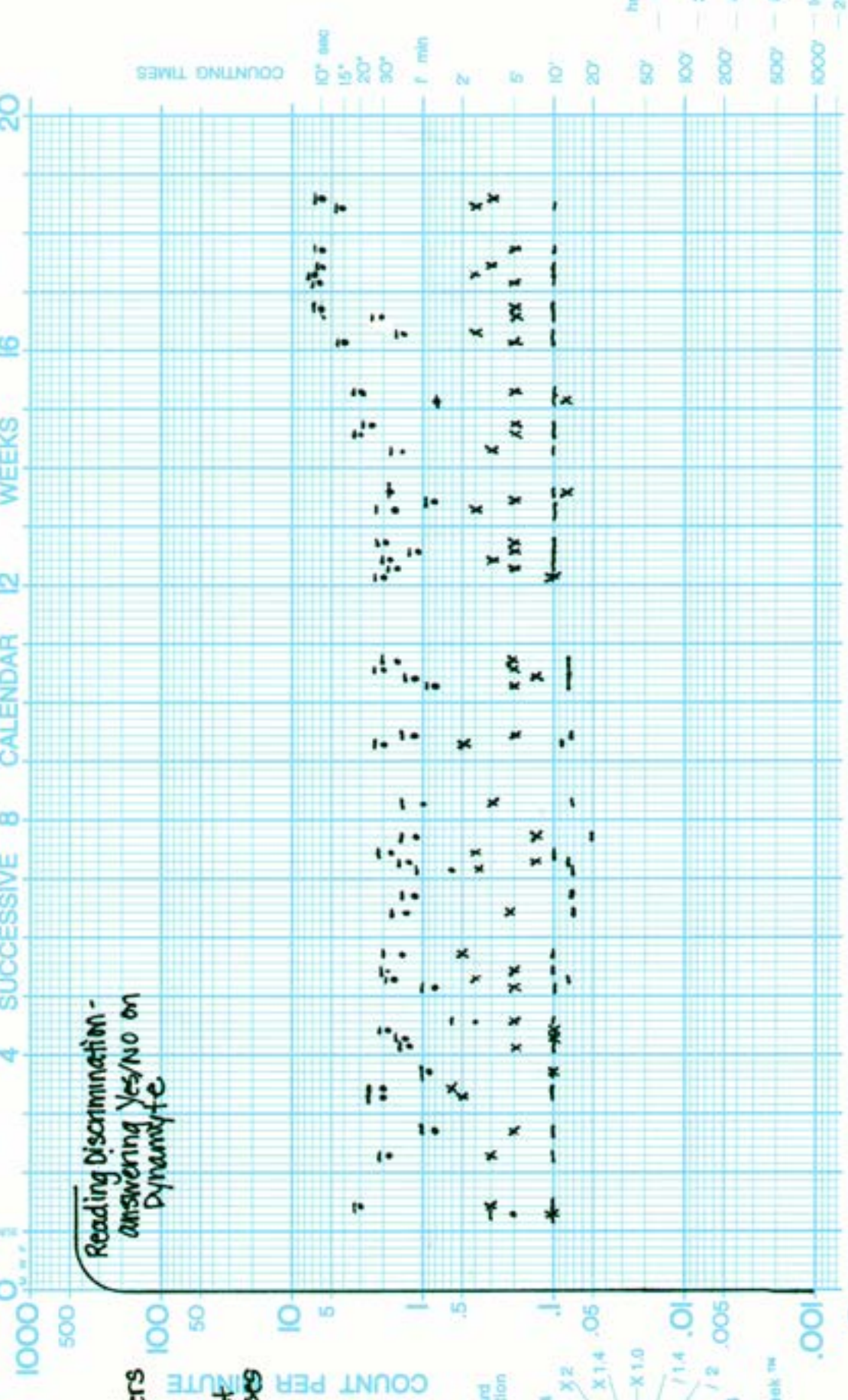
Now that we have evidence that discrimination training can be an effective tool to allow nonvocal students to access high-quality decoding curriculum, we plan to incorporate into Spencer's intervention program discrimination-based instruction that targets intermediate and advanced reading comprehension skills.

DAILY per minute CHART™

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10 10 04 5 12 04 7 11 04 2 1 05 30 1 05 27 2 05



Correct answers  
 incorrect responses

Standard calibration  
 X16 X4 X2 X1.4 X1.0 X0.7 X0.5 X0.4 X0.3 X0.2 X0.16  
 per week™

1000  
500  
100  
50  
10  
5  
1  
0.5  
0.1  
0.05  
0.01  
0.005  
0.001

10' 20' 50' 100' 200' 500' 1000' 24"

10' sec  
15"  
20"  
30"  
1 min  
2  
5  
10'  
20'

0 4 8 12 16 20

WEEKS

4 8 12 16 20

CALENDAR DAYS

4 8 12 16 20

SUCCESSIVE CALENDAR DAYS

4 8 12 16 20

14 28 42 56 70 84 98 112 126 140

PERFORMER

9.5 Number of correct  
COUNTED

incorrect responses

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