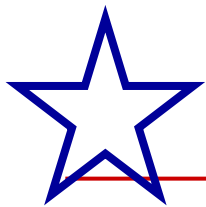

Children with Mental Retardation Can Learn to Read: Setting and Achieving Goals



March, 2006

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1

Project Staff



Principal Investigator

Patricia Mathes, Ph.D.

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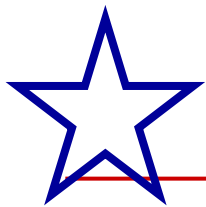
Janet Montana

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Research Assistants

Timothea Davis

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Multi-Site Research

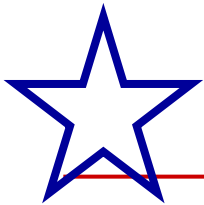


Research is funded by Institute of
Education Sciences (IES)

Coordinated with other research projects

University of North Carolina – Charlotte

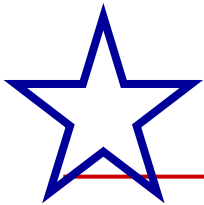
Georgia State University



Overview of Session

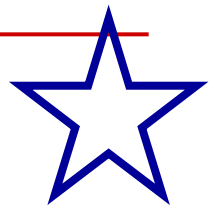


Brief overview of research project
Important literacy goals and how our
intervention addressed them
Case studies of students in the project



Why do the project?

Review of Research Literature



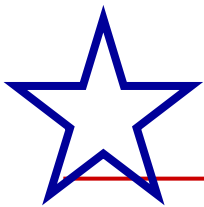
Some research supporting sight word instruction

Some research supporting phonics instruction

But...

No studies were large scale

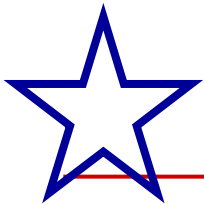
No studies employed a comprehensive reading program that included explicit, systematic phonics instruction



Research Questions



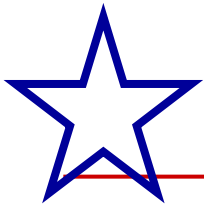
1. Are *reading interventions* that have been proven to be effective in teaching children who are very low readers also effective for teaching children with *cognitive disabilities or borderline IQ scores*?
2. What *level of reading competence* can be achieved by these students with the use of these interventions across several years?



Research Questions



3. When provided with this type of instruction, are these students afforded greater *access to participation in the general education curriculum?*



Participants



Total: 158

102 “Borderline”

according to *WASI: Wechsler Abbreviated Scales of Intelligence*
OR school-testing

IQ 70-79

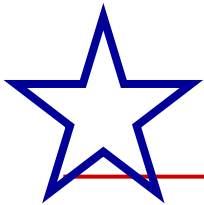
36 Mild range

IQ 55-69

20 Moderate range

IQ 40-54

Students randomly assigned to experimental or
contrast group



Intervention

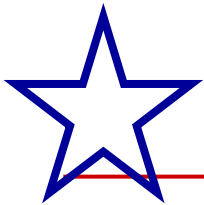


Comprehensive, explicit, systematic
phonics-based reading program

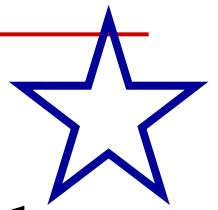
Implemented daily by research teachers

35- to 45-minute sessions

The intervention will be the **FOCUS** of
TODAY'S SESSION



Curriculum: Proactive Reading



(Published as *Early Interventions in Reading* by SRA)

“Foundation” Level

Skills typically taught in kindergarten
Unpublished

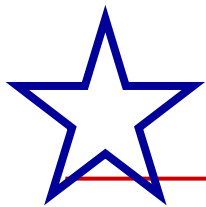
Level One

Skills typically taught in first grade
Published

Level Two

Skills typically taught in second grade
Recently published

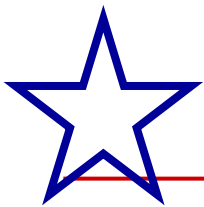
Students began in either “Foundation” or Level One



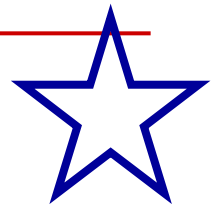
Curriculum: Critical Features



Explicit and Systematic ~~7770R#Q%~~



Preliminary Findings: Progress Monitoring Data (DIBELS)



Initial Sound Fluency

Measure of ability to identify the first sound in a word
Which word begins with /c/?

Phoneme Segmentation Fluency

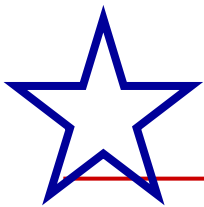
Measure of ability to segment words into individual phonemes
Tell me the sounds in cat. /c/ /a/ /t/
Partial credit is given

Nonsense Word Fluency

Measure of ability to say the sounds in a list of CVC non-words
Students can go “sound by sound” or read whole words

Oral Reading Fluency

1 minute timed reading
of words correct per minute



Preliminary Findings: Progress Monitoring Data (DIBELS)



Does not include 13 treatment students and 10 comparison students who began intervention late

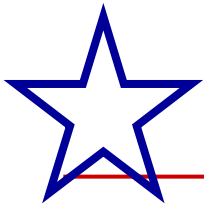
Only after first 12 weeks

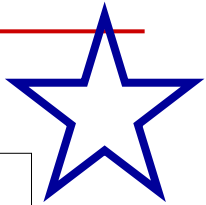
No significant findings; all trends in favor of experimental group

Trends are highly favorable for PSF

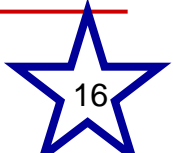
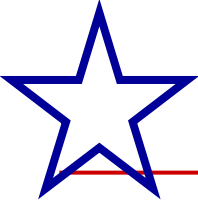
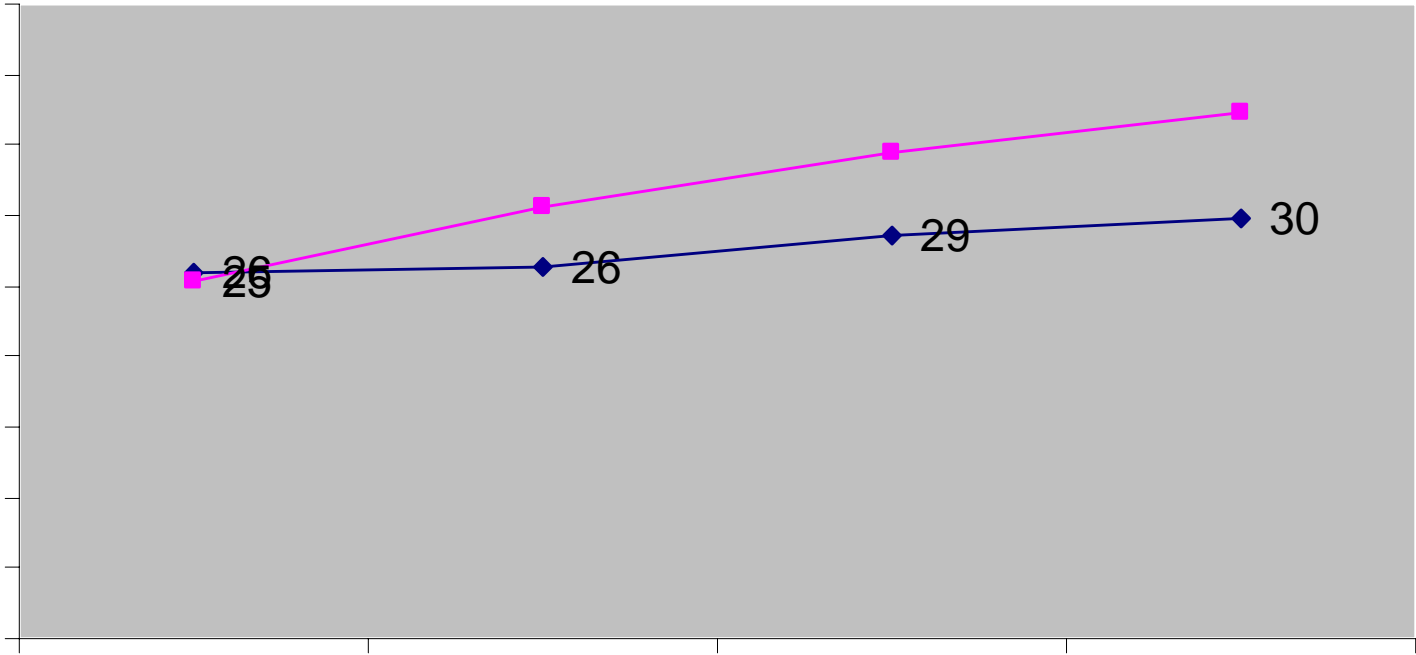
Trends are somewhat favorable for ORF

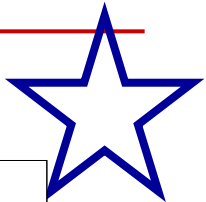
VERY PRELIMINARY



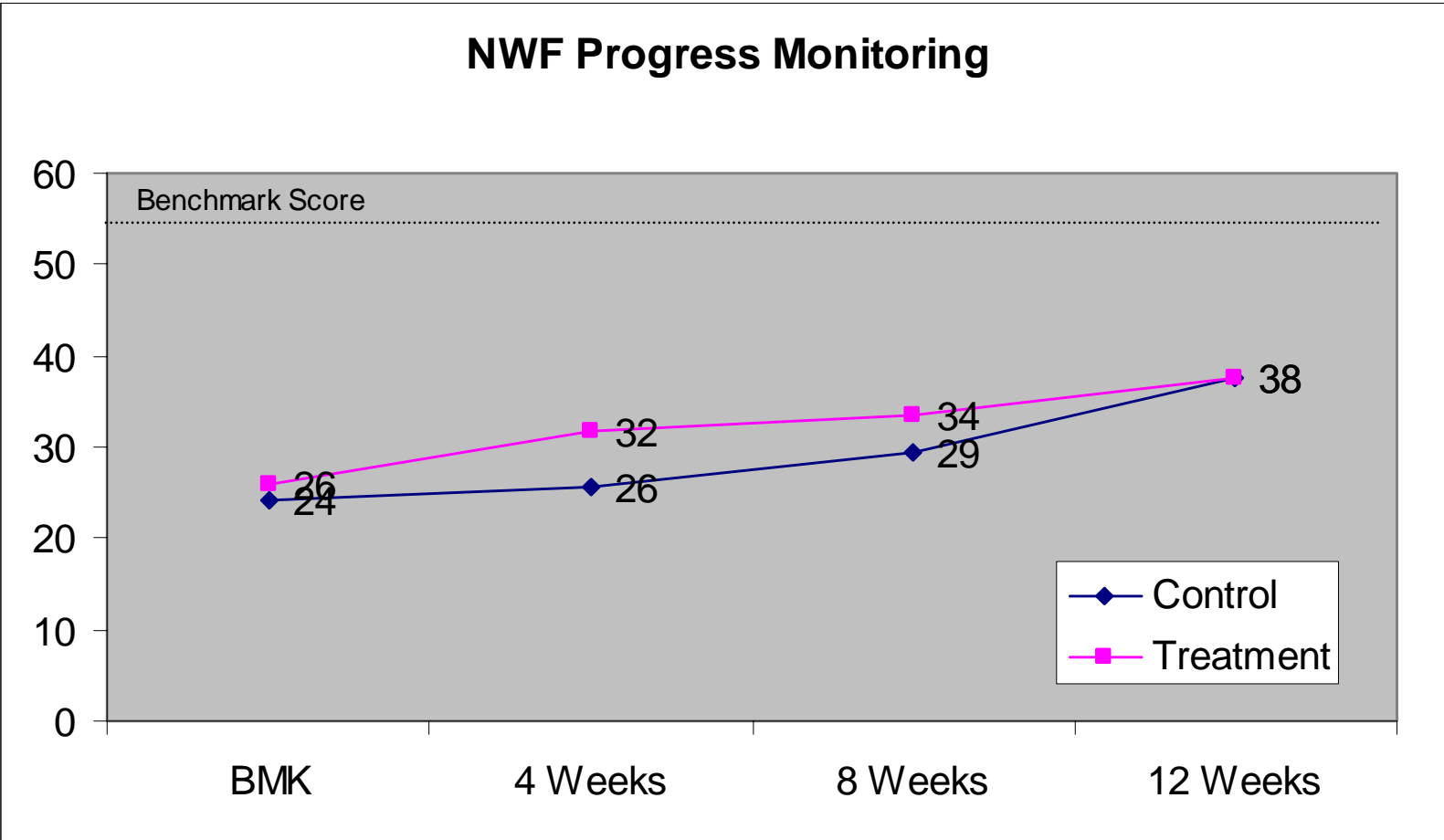


PSF Progress Monitoring

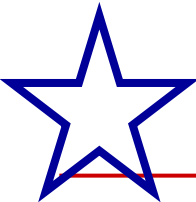


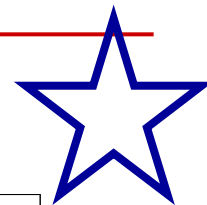


NWF Progress Monitoring

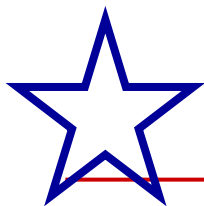
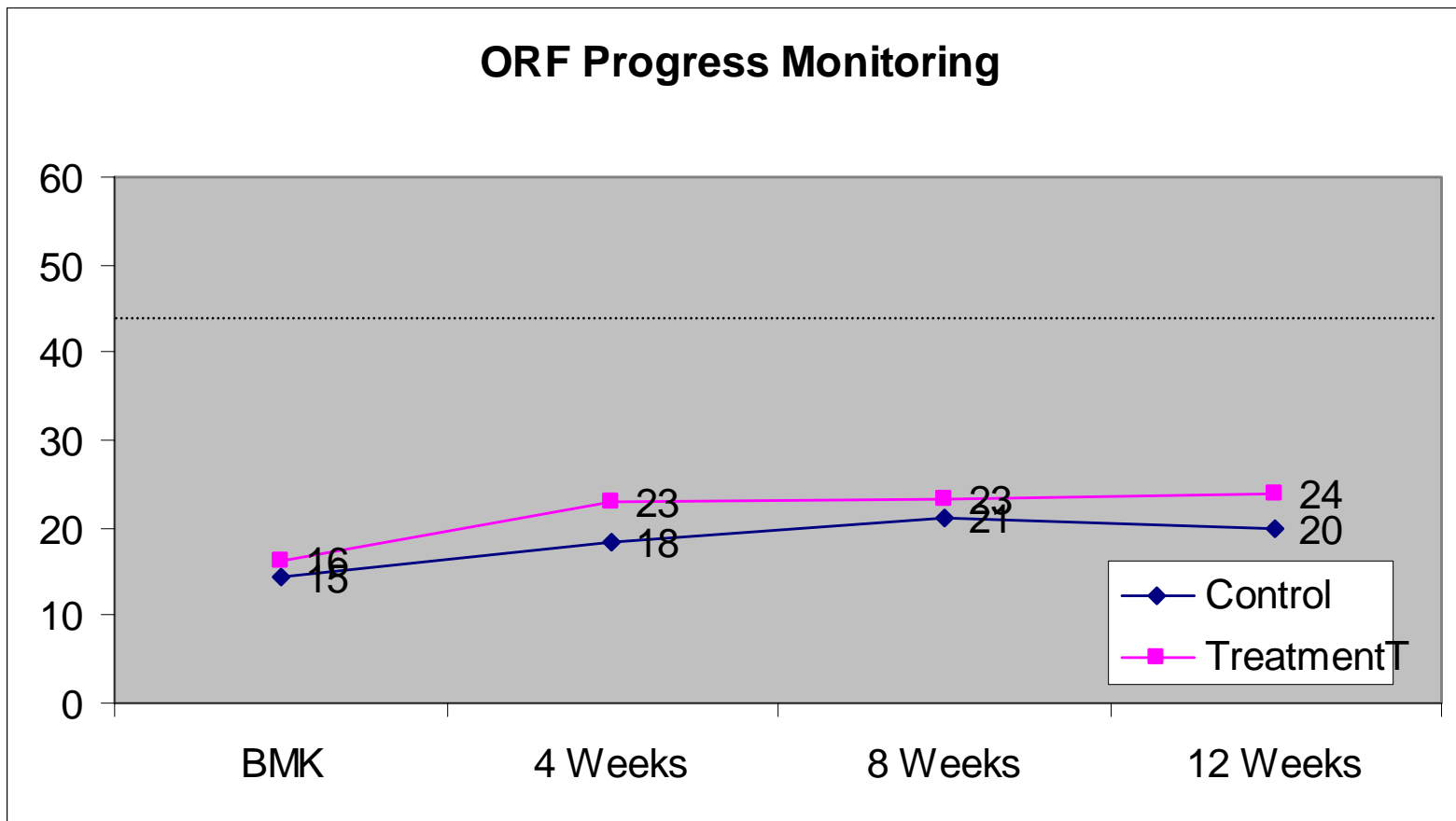


SD range from 22.9 to 37.1

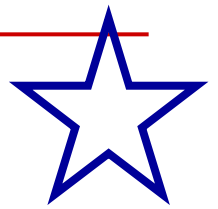




ORF Progress Monitoring



To be continued...



Pre/Post Academic Measures

Comprehensive Test of Phonological Processing (CTOPP)*

Blending Words and NonWords*

Segmenting Words*

Sound Matching (first sound and last sound)*

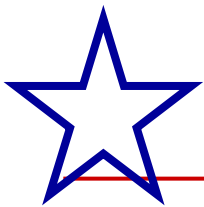
Rapid Letter Naming*

Test of Word Reading Efficiency (TOWRE)

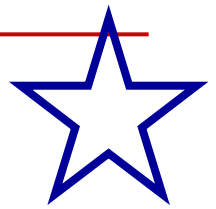
Phonemic decoding efficiency subtest

Sight word (real word) efficiency subtest

*common measure



To be continued...



Pre/Post Academic Measures

Woodcock Language Proficiency Battery- R
(WLPB-R)*

Language composite

Memory for sentences*

Picture vocabulary

Oral vocabulary

Listening comprehension*

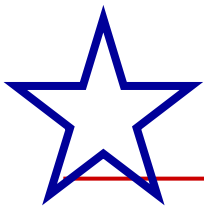
Verbal analogies

Reading composite

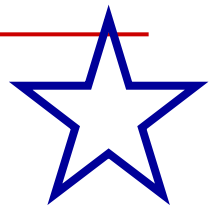
Letter-word identification*

Passage comprehension*

Word Attack*



Goals for Next Year



Keep going!

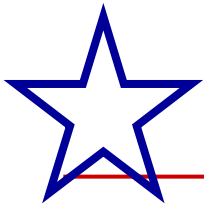
Careful intervention modification for students making little or no progress

Developing additional oral language component

Listening comprehension

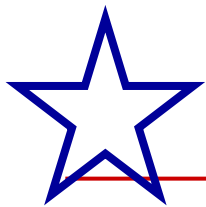
Oral expression

Vocabulary



Curriculum: Proactive Reading

(Published as *Early Interventions in Reading* by



March, 2006

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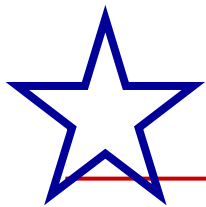


23

Curriculum: Critical Features



Explicit and Systematic





Curriculum: Immediate Feedback and Modeling

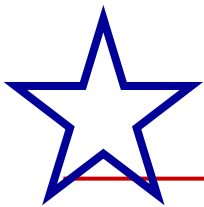


Model: “My turn” or “I”

Lead: “Our turn” or “We”

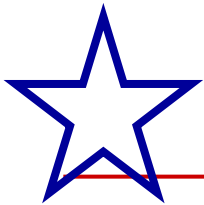
Test: “Your turn” or “You”

Retest: “Backing up”





Curriculum: Providing Scaffolding



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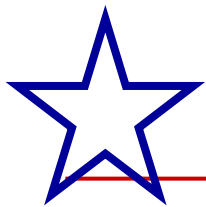
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Phonological awareness and



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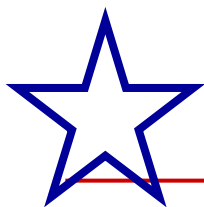
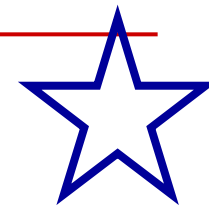
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PA Instruction: "First Sound



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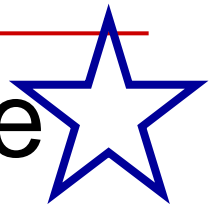
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30

PA Instruction: First Sound Game

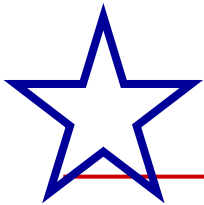


Scaffolded at Foundation Level

Similar Procedures

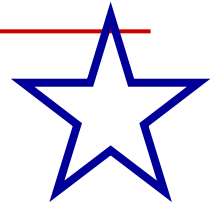
This is shhheep. This is fffish. (magnet pictures)

Which one begins with /fff/?



More

Phonemic Awareness Goals



So far...

Isolate first sound

Blending onset and rime

Next...

Blending individual phonemes into a word

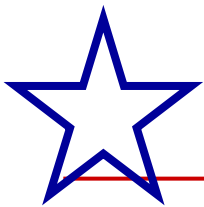
Teacher: /mmm/ /aaa/ /nnn/

Student: man

Segmenting words into individual phonemes

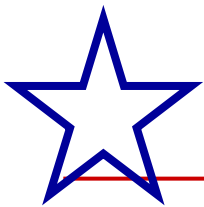
Teacher: Say “man” slowly.

Student: /mmm/ /aaa/ /nnn/





PA Instruction: Blending Words



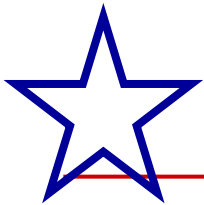
Goal: Letter-Sound Correspondence



Letter-Sound Introduction



Letter-Sound Review



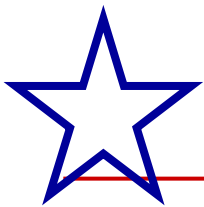
Goal: Combining Letter-Sound Knowledge and PA



Stop and Go Game

Part of Foundation Level

Provides additional practice for phonemic blending and segmenting



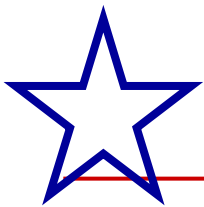


Sounding Out -- in the Beginning



Format:

1. Write short list of vc and cvc words on board.
2. Teacher asks the students to sound out the first word.
3. Teacher points under each sound while the students say each sound in the word.
4. Teacher points under continuous sounds for 2 seconds, but moves quickly off of stop sounds.



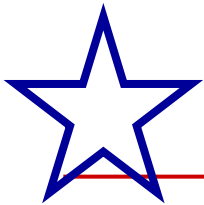


Sounding-Out, Then Reading Fast

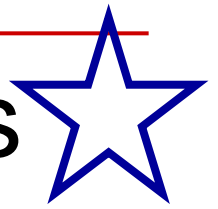


Format:

1.



Language Comprehension Goals



Increase general knowledge

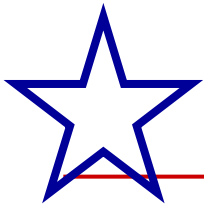
Increase vocabulary

With narrative text,

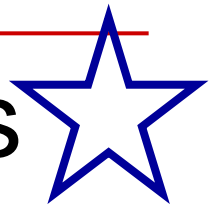
Identify the beginning, middle, and ending events in a story

Make reasonable predictions about what the story will be about

Make reasonable predictions about what will happen next



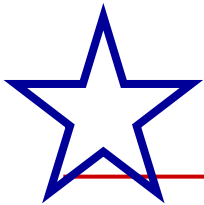
Language Comprehension Goals



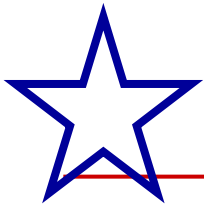
With expository (informative) text,

Discuss related knowledge

What do you know about thunderstorms?



A few case studies...



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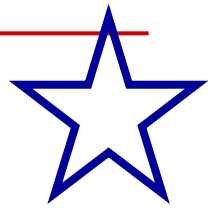
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“Jason”



Grade: 1

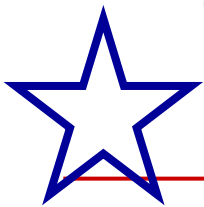
IQ: 60

Diagnosis: Autism and MR

Placement: Teaching to Academic Potential (TAP)

Level: Foundation

What people said before: The TAP director was surprised that he made it into the treatment group and “wished us luck”



Intervention Teacher Comments



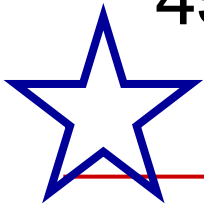
Has improved his language, behavior, and attention

Segmenting words such as “sat,” “Sam,” and “mat”

Attempting to Blend

In the beginning, he remained in his seat 5-7 minutes before throwing himself on the floor, etc.

Currently, he remains in his seat the entire 35-45 minutes of the reading intervention



Methods for Increasing Attention



Worked with special education teacher

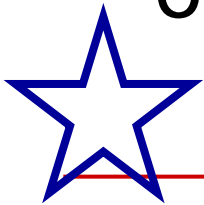
Very frequent periodic reinforcement during activities

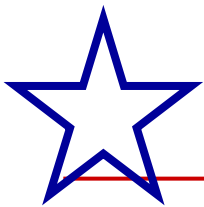
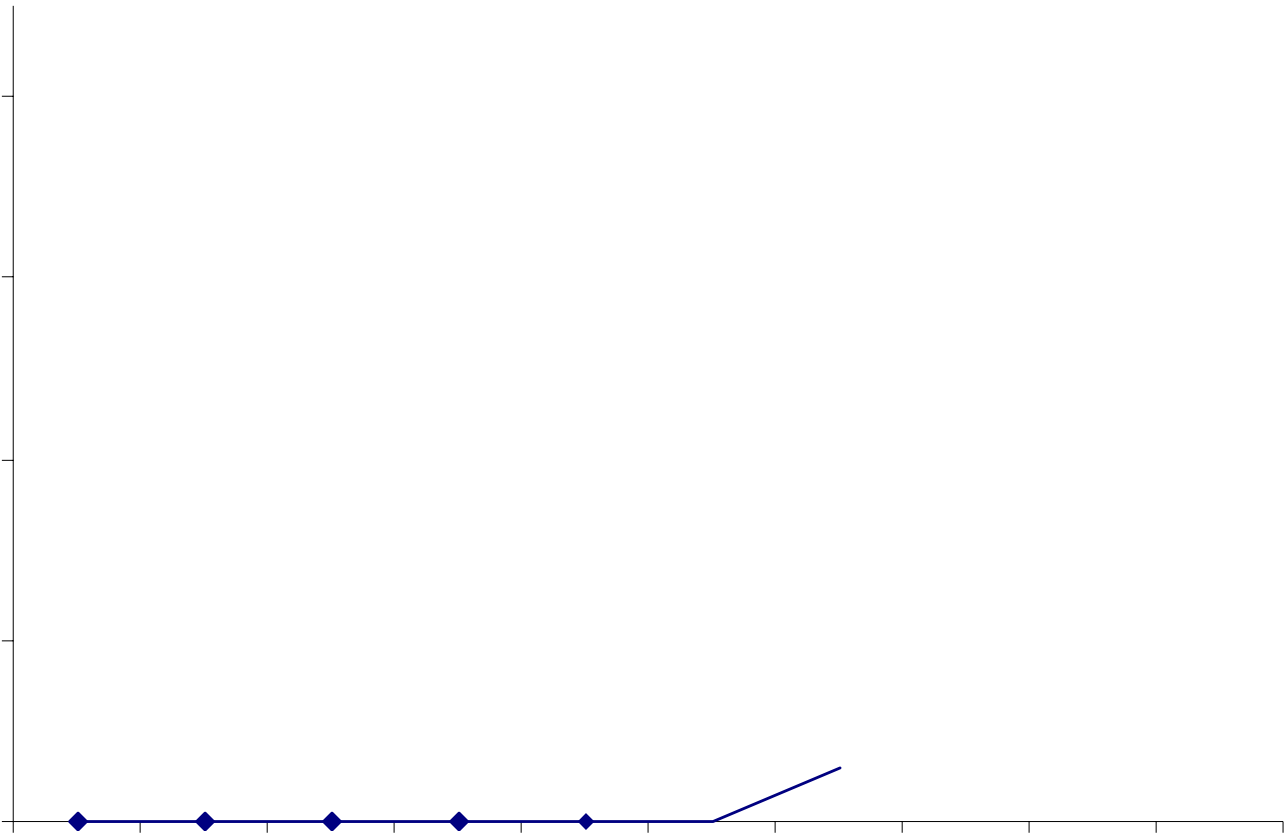
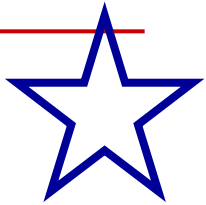
Varying reinforcers

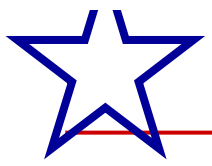
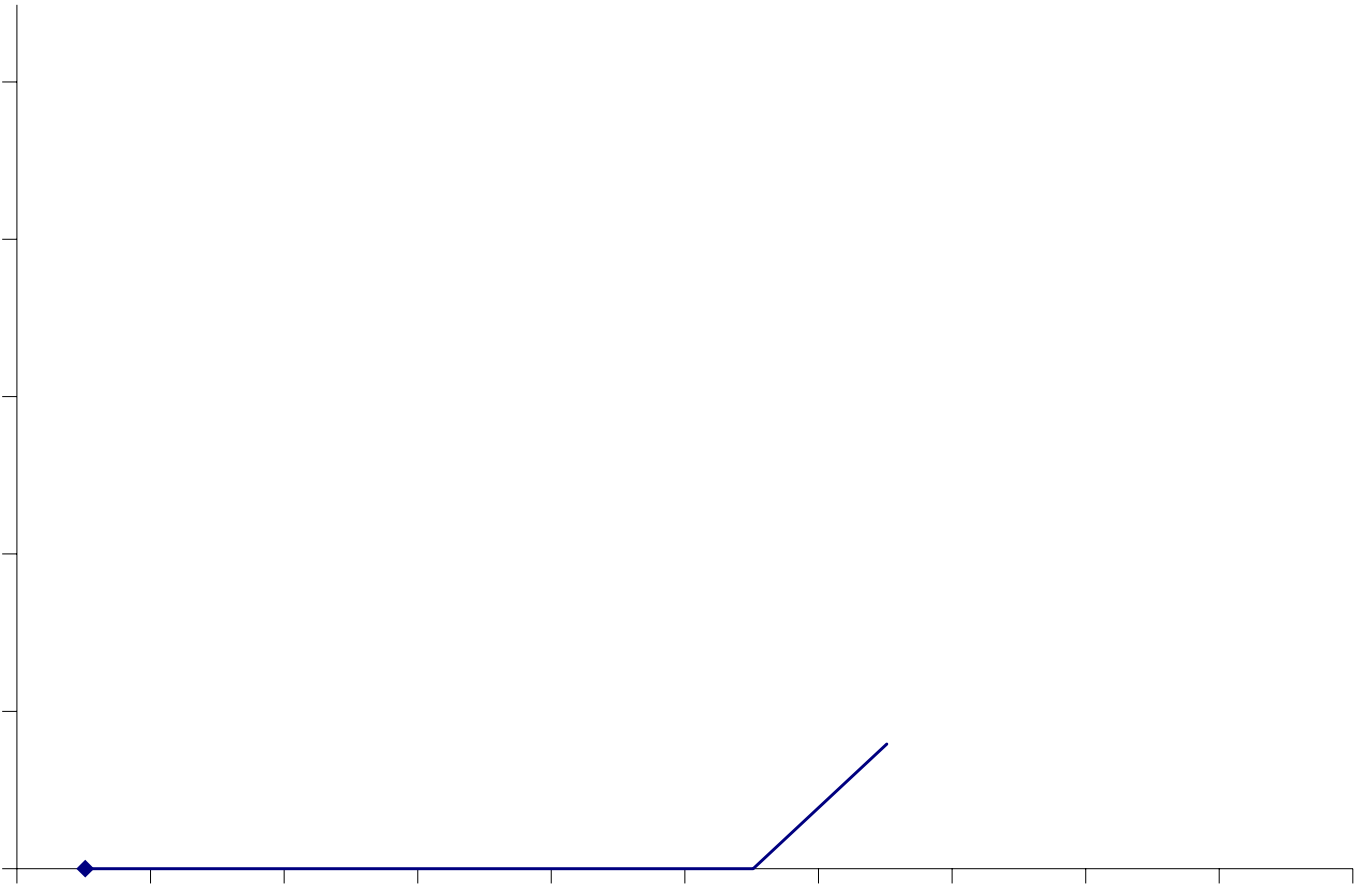
Marbles

Allowed to have toy

Taking breaks and then gradually fading out the breaks





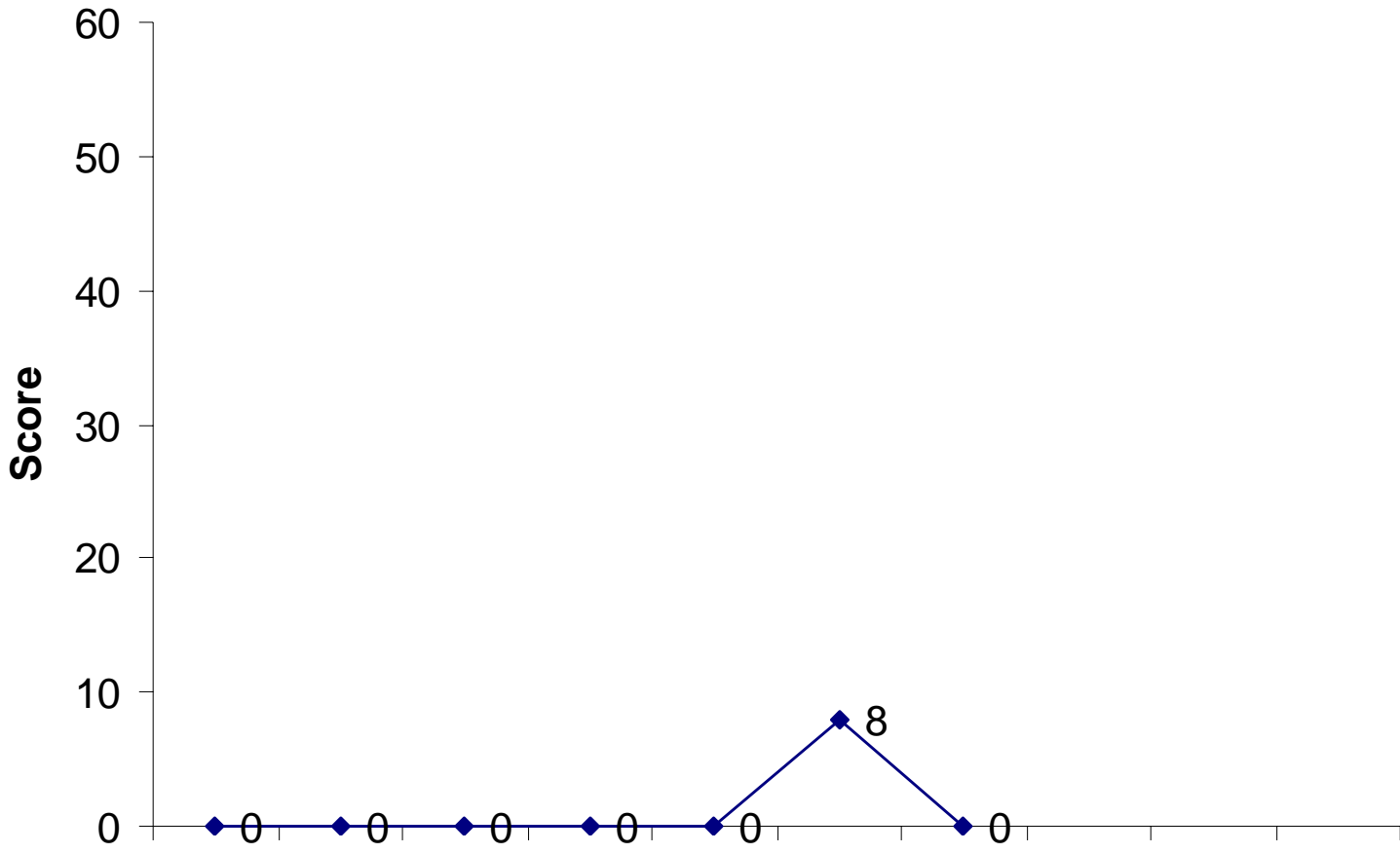


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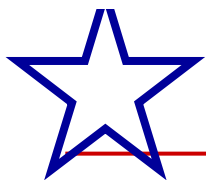
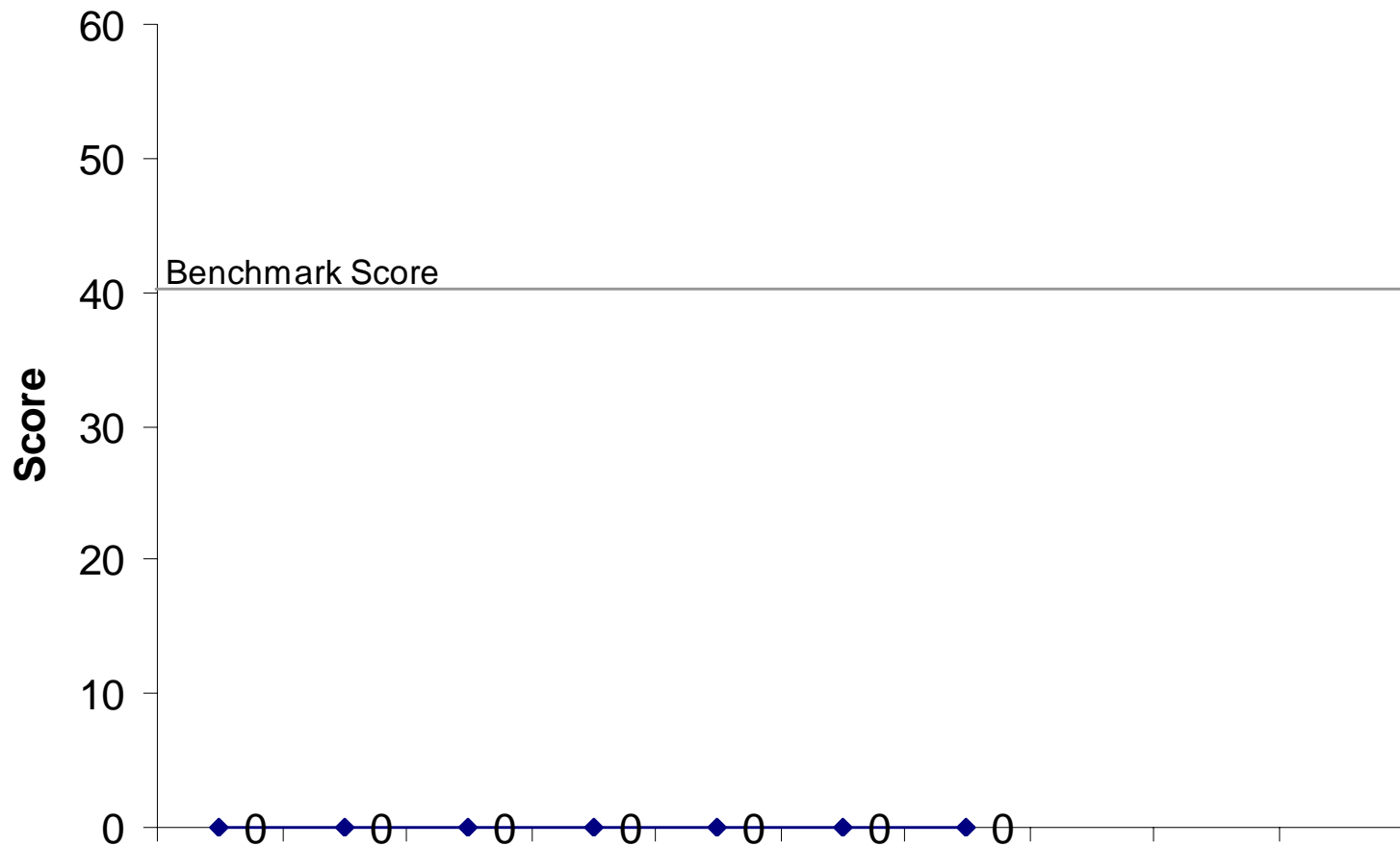
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◆ Growth in Oral Reading Fluency for "Jason"



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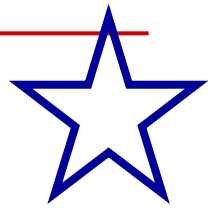
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Teacher Comments



Intervention Teacher

Able to tell beginning, middle and end of a poem/story
Can blend words and read some words in the
storytime readers

Reading some sight words

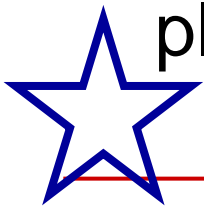
LINC Teacher

“I have seen a lot of progress.”

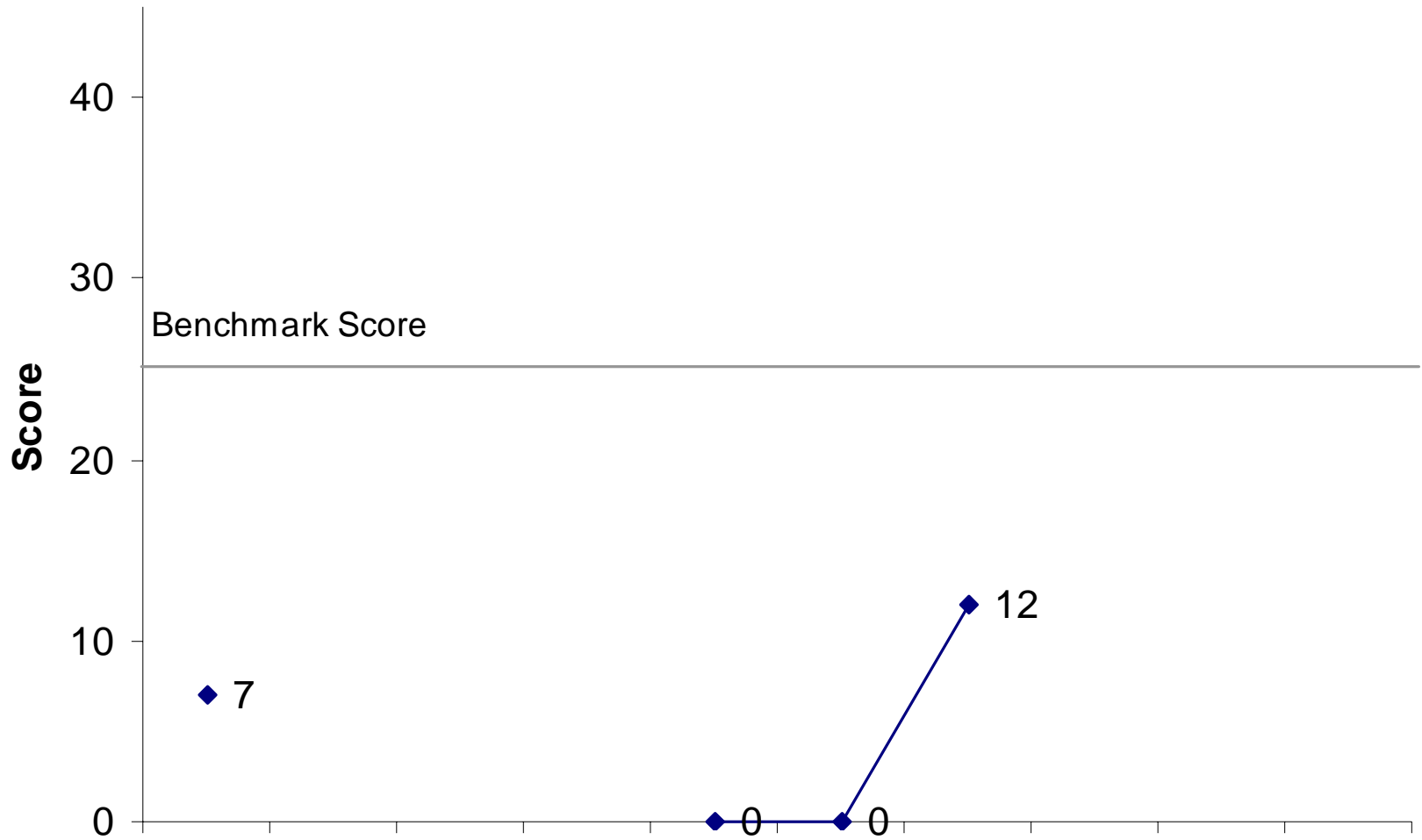
He now knows all of his letters and sounds.

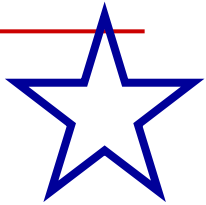
He can create words using letter flashcards and blend
familiar and unfamiliar words.

Both are going to advocate for a less restrictive
placement at Tyrone’s IEP meeting next month

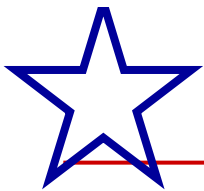
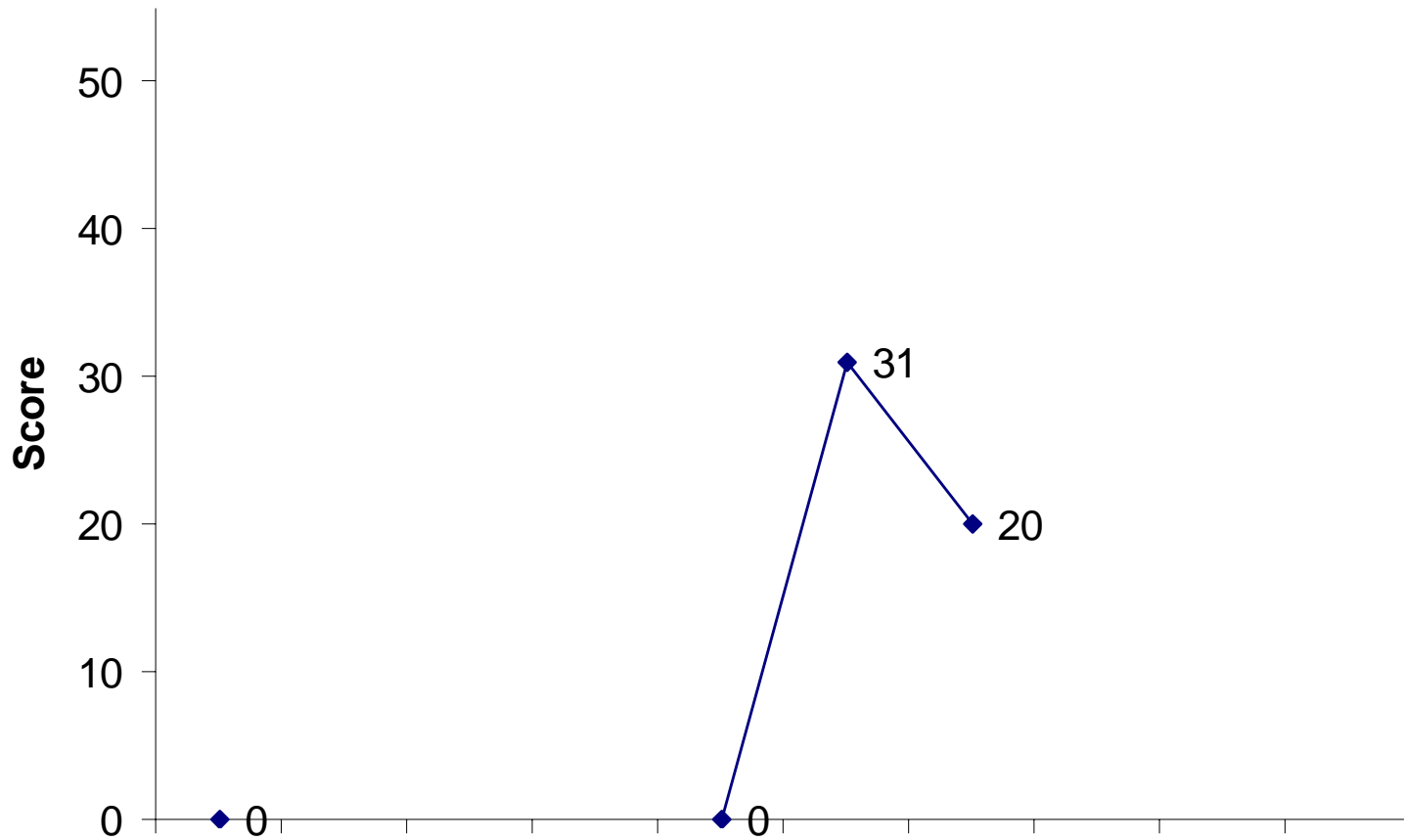


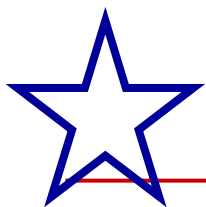
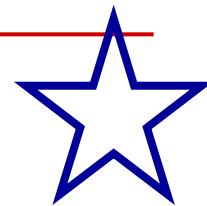
—◆— Growth in Initial Sound Fluency for "Tyrone"





—◆— Growth in Phonemic Segmentation Fluency for "Tyrone"





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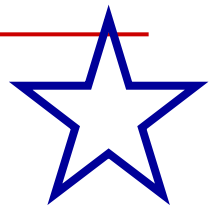
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“Maria”



Grade: 1

IQ: 59

Diagnosis: Down Syndrome

Placement: General Education with resource support

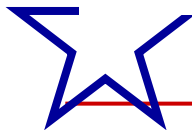
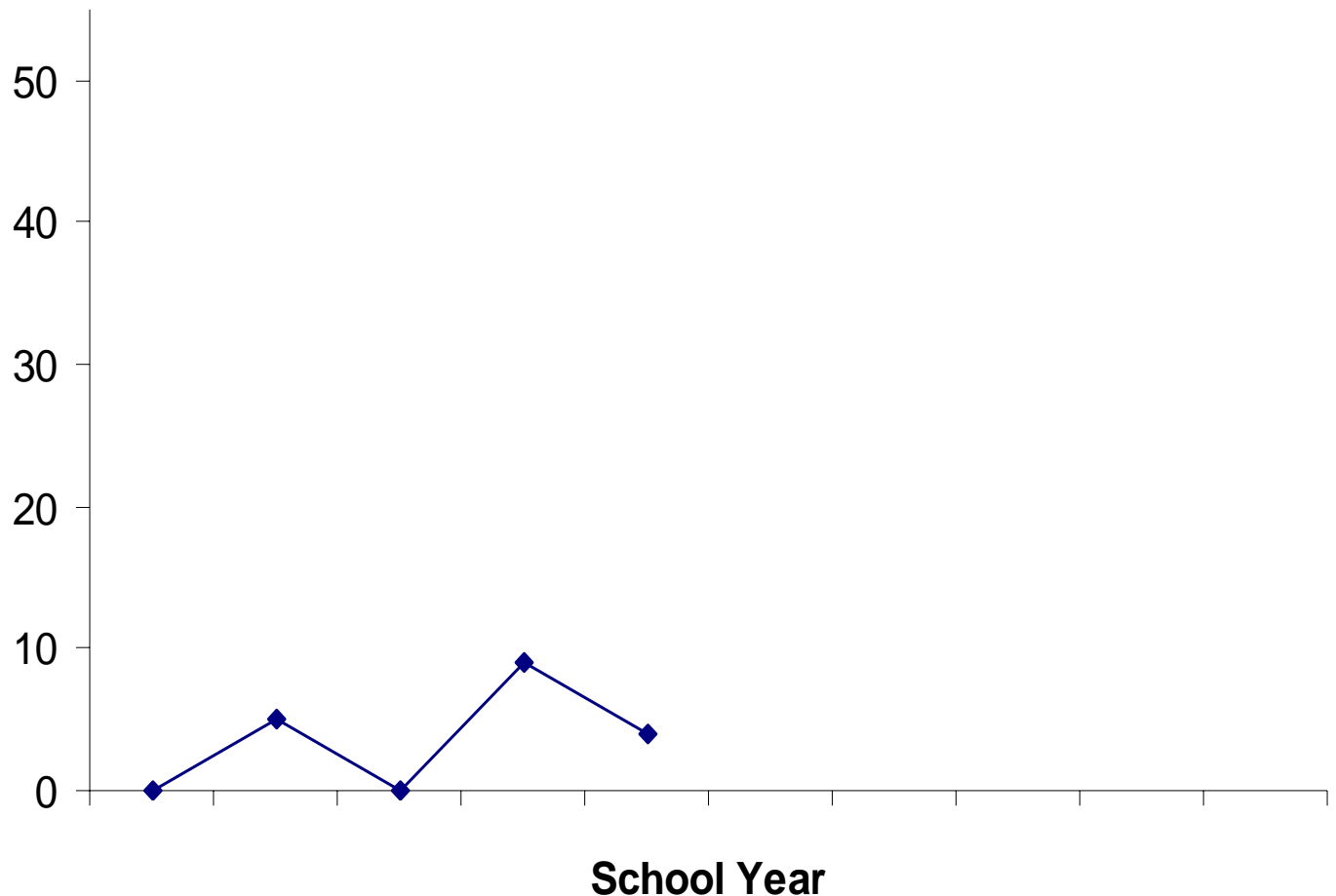
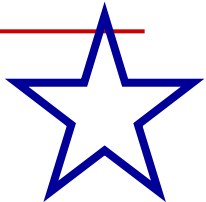
Level: Foundation (almost finished)

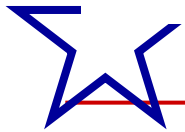
When the pre-test was to be administered, this student’s teacher told her that, “this was not a child we wanted for the study.”

Teachers did not view reading as a reasonable goal



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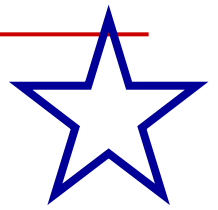
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“George”



Grade: 1

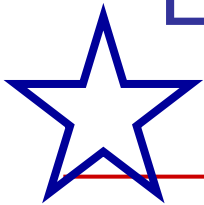
Placement: General Education with
resource support

Diagnosis: MR

IQ: 63

Level: has finished Foundation level

ESL



Intervention Teacher Comments

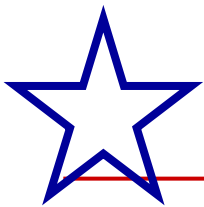


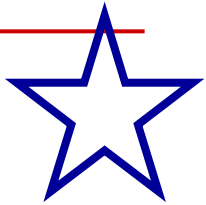
Language and reading skills have progressed

Stretches, blends, and attempts to read

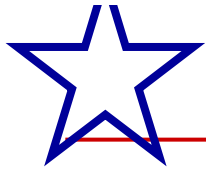
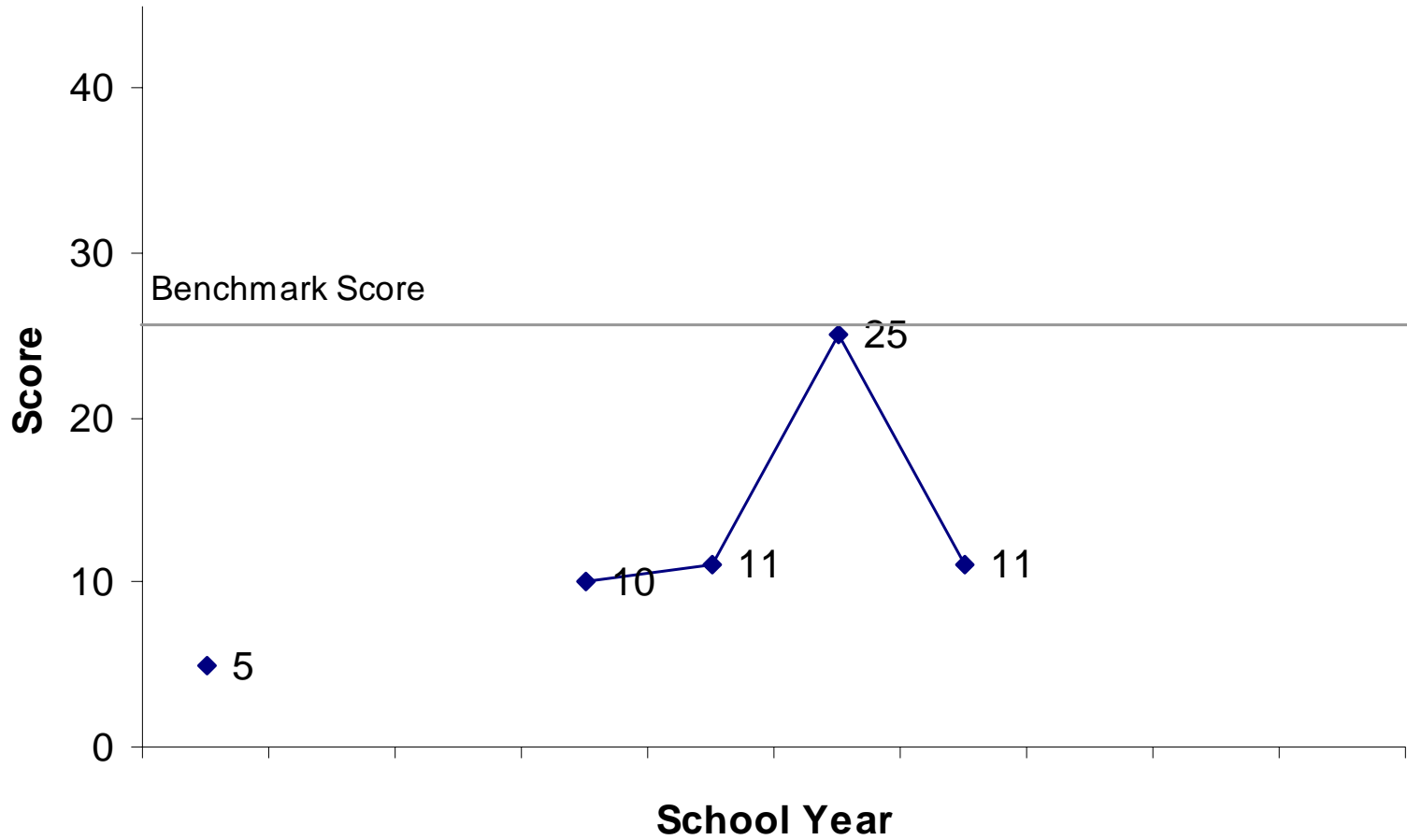
Initial sounds have improved, along with listening comprehension

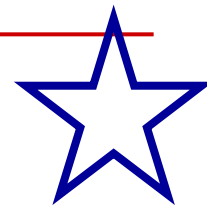
Attention skills have improved

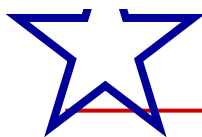




—◆— Growth in Initial Sound Fluency for "George"







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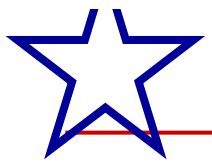
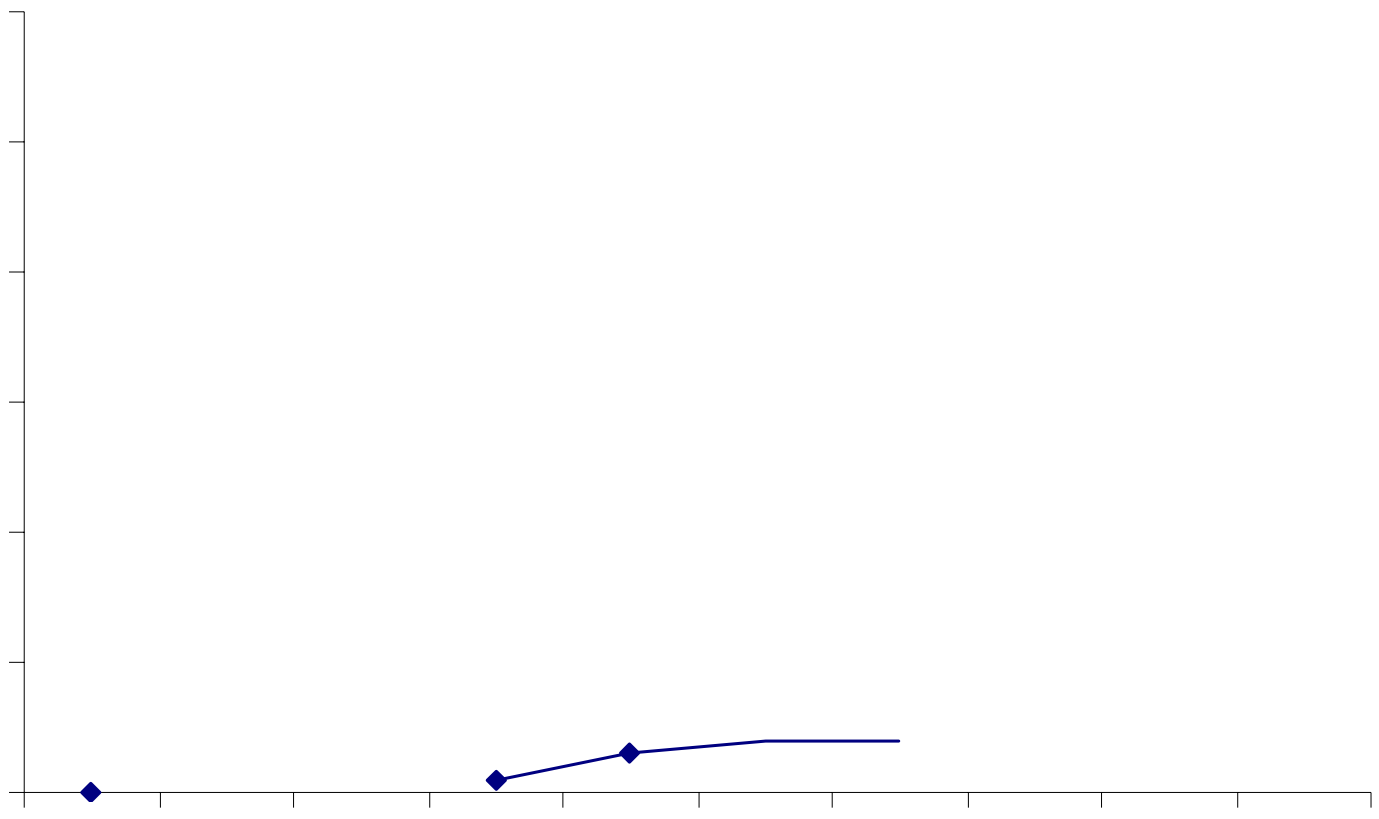


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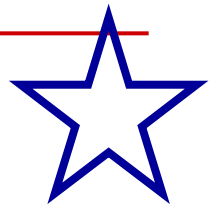
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Teacher Comments



Intervention Teacher

In a Level One test, he read the passage at 38 correct words per minute, which was slower than his normal pace

Continues to struggle to keep his place when he reads and is often distracted, which slows down his scores

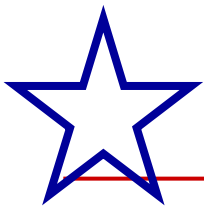
Has not consistently mastered the long “e” vs. short “e” sound

Sometimes switches “er” and “ar” sounds

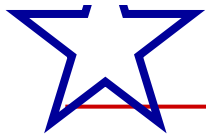
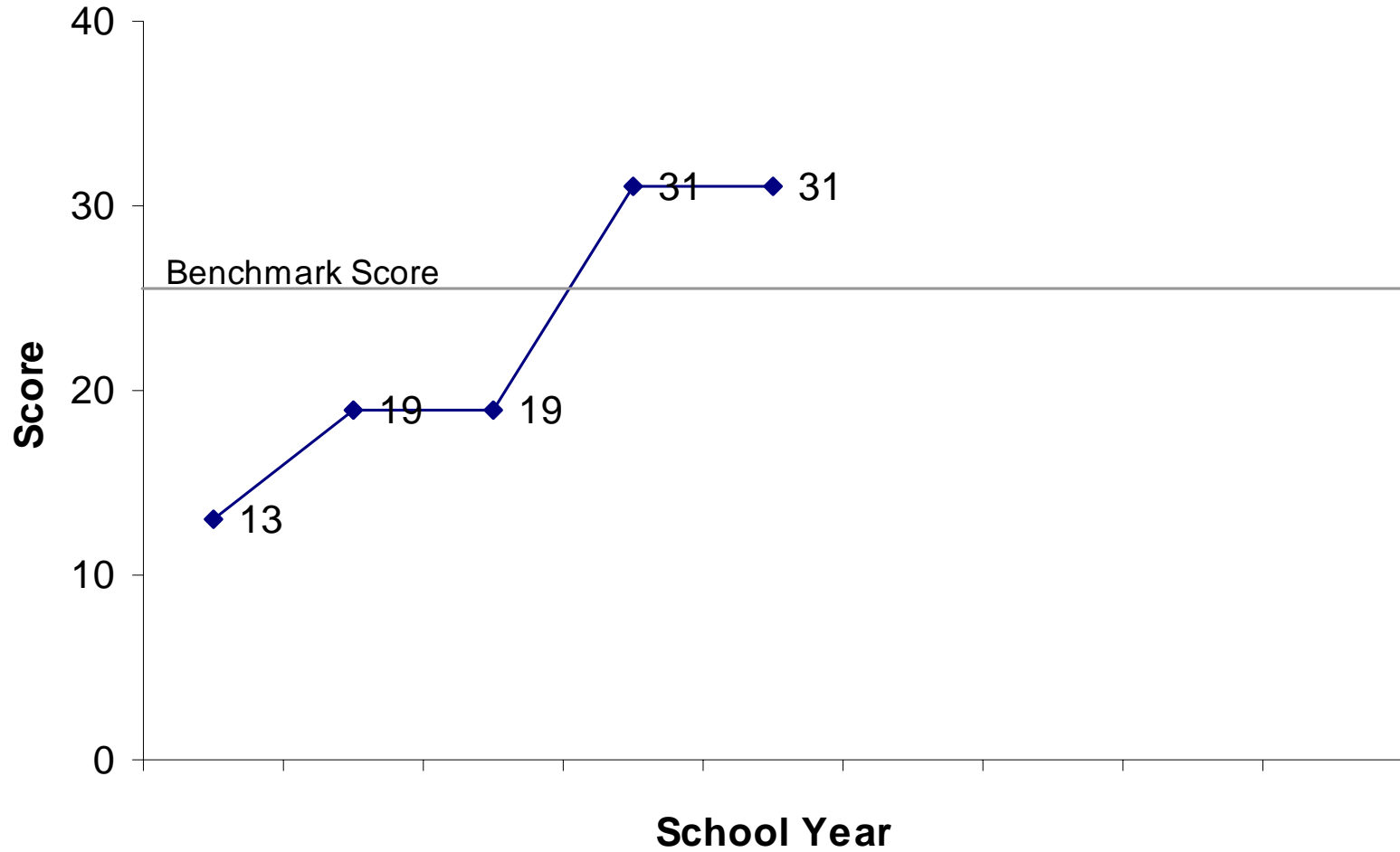
Classroom Teacher

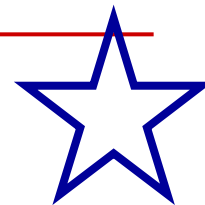
She could hardly get him to do a thing at the beginning of the school year

Now he is volunteering to answer questions, completing assignments, and acting like a “totally different student”

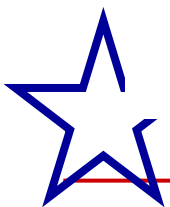
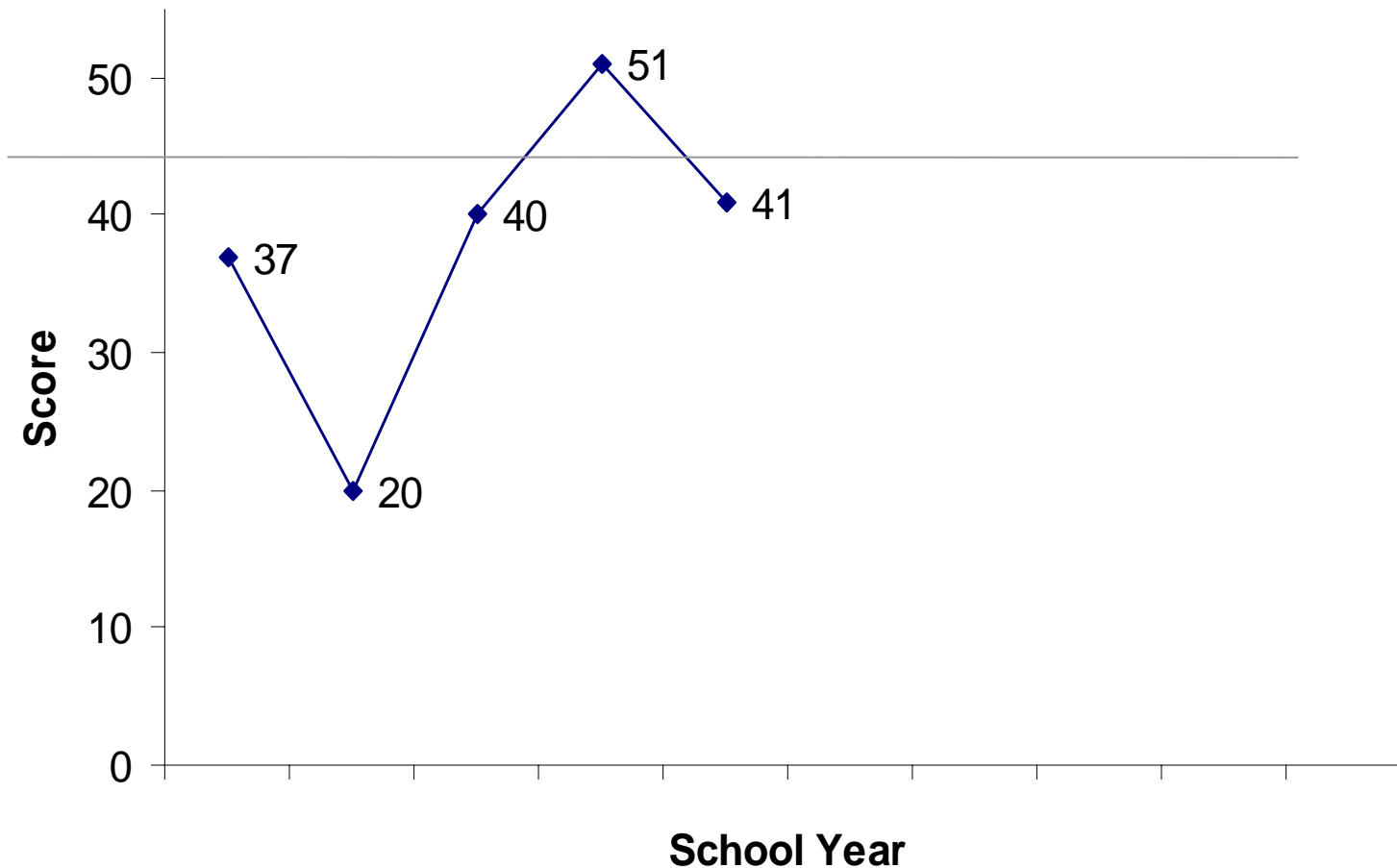


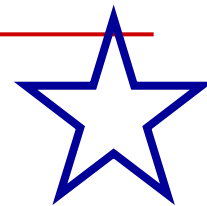
—◆— Growth in Initial Sound Fluency for "Kory"



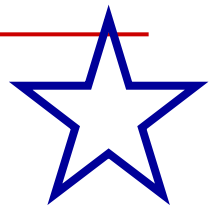


◆ Growth in Phonemic Segmentation Fluency for "Kory"





To be continued...



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