

Methods for Increasing the Intensity



Overview of Presentation

Overview of Overall Research Project and Recent Findings

Strategies for Increasing Intensity

Key Factors

Word and Sentence Level Strategies

Book Level Strategies

Overview of Project Maximize:

Project Staff

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Supported by IES Grant

#H324K040011-05

Participants in 08-09 (last year)

<i>note: 186 different students participated at least one year; 3rd -6th grade in 08-09</i>	Treatment	Contrast
Borderline IQ (70-79*) *WASI or school testing	$n = 18$	$n = 16$
Mild IQ (55-69)	$n = 18$	$n = 15$
Moderate IQ (40-54)	$n = 18$	$n = 11$
TOTAL	$n = 56$	$n = 42$

Literature Review: Reading and Intellectual Disabilities (ID)

Minimal amount of research

Focused on mild ID, not moderate ID

Focused on isolated subskills

Even students with moderate to severe levels of ID can learn to automatically recognize a fairly large number of words (sight words)

Phonics research is promising

Browder, Wakeman, Spooner, Ahlgrim-DeLzell, & Algozzine, 2006;
Connors, Rosenquist, Sligh, Atwell, & Kiser, 2006

Literature Review: Reading and Intellectual Disabilities (ID)

No research has been conducted to determine whether students with ID can learn to read by **fully processing the print and meaning** of connected text, as is consistent with current theories of reading development

Findings and Manuscripts

Research Questions:

Year 3, Psychology in the Schools

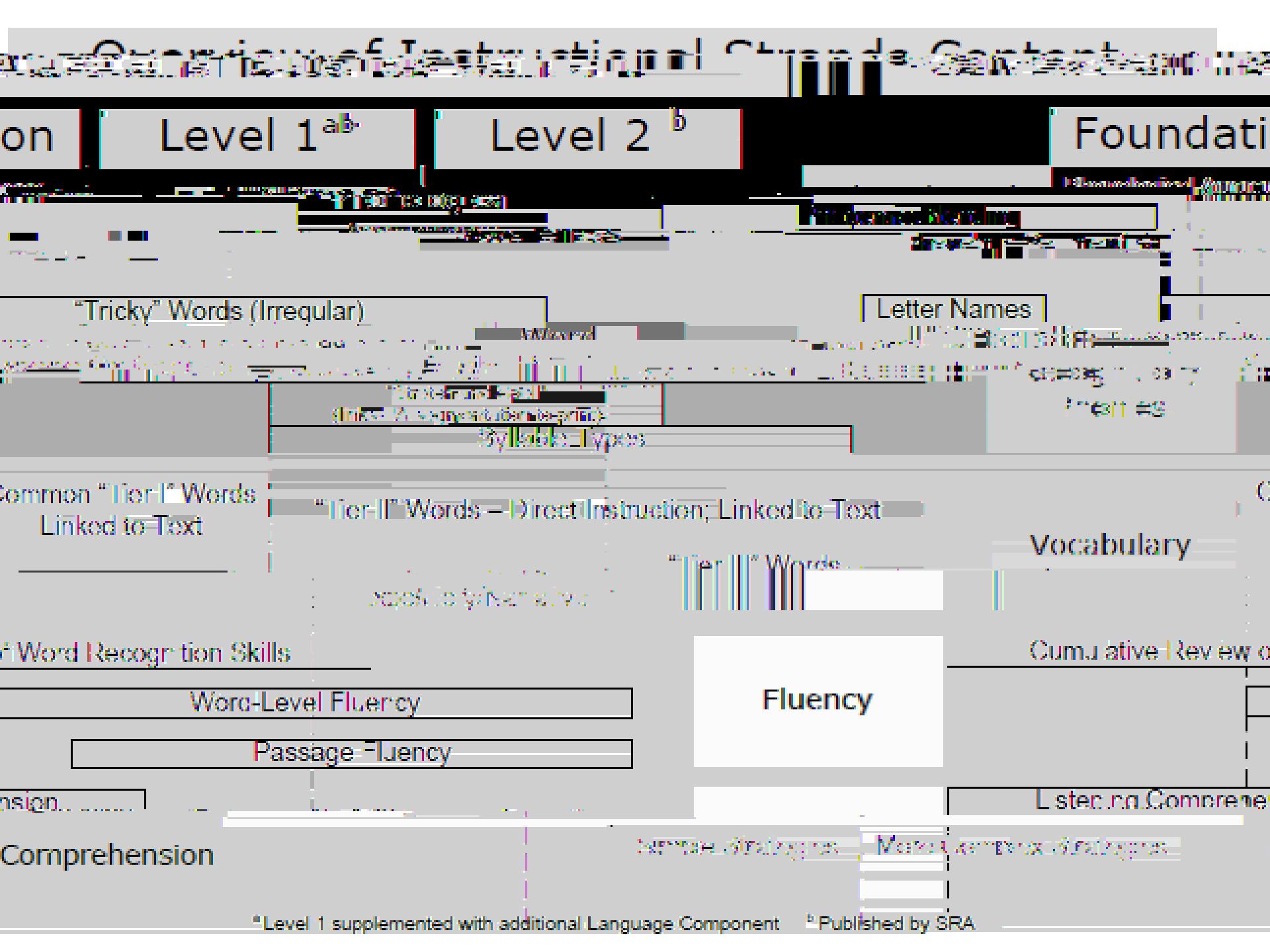
standardized measures of reading-related variables?

reading intervention outperform similar peers receiving typical special education instruction?

Design and Participants

Longitudinal 2 to 3 academic years (05-06 through 07-08)

Random assignment to ***intervention*** or ***contrast***



Measures by Construct

Phonological Awareness

CTOPP subtests (untimed)

DIBELS Phoneme Segmentation Fluency (timed)

Phonemic Decoding

DIBELS Nonsense Word Fluency (timed)

TOWRE Phonemic Decoding (timed)

WLPB Word Attack (untimed)

Word Identification

TOWRE Word Reading Efficiency (timed)

WLPB Word Identification (untimed)

Measures by Construct (cont.)

Comprehension

WLPB Passage Comprehension (untimed)

Language

WLPB Language Subtests

PPVT (untimed)

EVT (untimed)

Question 1: Do students with IQs between 40 and 69 make significant progress on a variety of standardized measures of reading-related variables?

On average, participants made educationally meaningful, statistically significant progress on standardized measures of reading and language after 2-3 years of instruction

Caveats

- High variability

- Some students did not show gains on standardized measures, but did show gains on progress monitoring measures

Question 2: Do students with IQs between 40 and 69 who participate in a comprehensive reading intervention outperform similar peers receiving typical special education instruction?

Statistically significant differences on phonemic awareness, phonemic decoding (word attack, NWF), oral reading fluency

Effective sizes moderate to high on word recognition, vocabulary, listening comprehension

No measurable difference on reading comprehension

Limitations

Performance among students highly variable

Though relatively large sample size for population, it is a relatively small sample size for the statistical methods

Intervention was complex and comprehensive, making it difficult to determine which parts were causing positive effects

Large number of measures required to assess outcomes, but increases probability of Type I error

In 2-3 years of intensive instruction, how much did students learn?

weeks of instruction (approximately 3 school years)

PSF (segments per minute) 34.5 treatment; 17.83 contrast

NWF (sounds per minute) 55.49 treatment; 32.73 contrast

ORF (words per minute) 44.30 treatment; 26.69 contrast

Predicted scores based on hierarchical linear
modeling

Conclusions of Study

Support for use of scientifically-based reading instruction for students with low IQs (ID range)

IF Individualized and with high degrees of fidelity

IF provided intensive *f*

Key Factors in Increasing Intensity

Intense

repeated practice across the day and across days

Appropriate

practice of key skills at appropriate difficulty level
(high degrees of accuracy)

Motivating

Set goals to increase self-determination and
develop an internal locus of control

Track amount of practice AND progress

Change rewards frequently

Meaningful (link to meaning as much as possible,
but quickly)

Increasing Intensity During Lessons

Maintain a fast-pace

Use incentives to manage behavior and increase time on task

Tailor lessons to individual students/groups

Spend less time on clearly mastered skills and more time on challenging skills

Ex. Some of our students were doing great on letter-sound correspondences, but still struggling with phonemic awareness. Therefore, we reduced time spent on letter-sound correspondences, just reviewing briefly in each lesson or skipping that activity on some days

Use Technology Wisely

Remember key factors

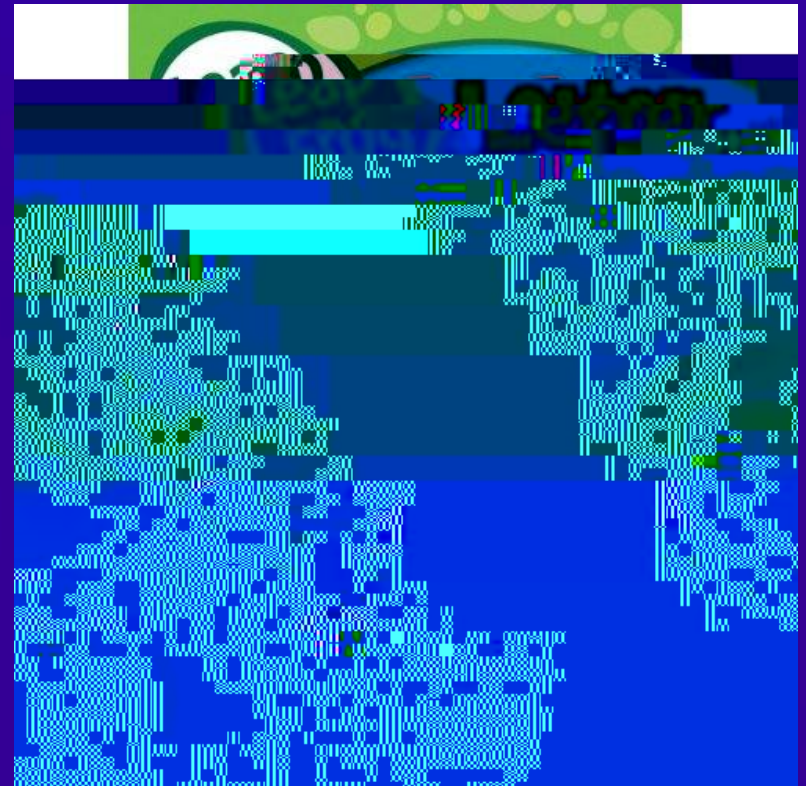
Letter Factory Video

Websites

Usually need support

Quality varies

Etc.



Utilize existing resources

Use activities and materials from curriculum other than your primary curriculum

Remember Key Factors

Word Level Strategies

High-Frequency Word Practice

Irregular (ex. was)

Regular (ex. can, did, had Fry Word List)

Practice small sets of words in a variety of ways
(example activities to follow)

Cumulative

Apply taught skills

Sound out words made up of taught letter patterns

Be sure the word follows the rules (*ai* as in *paid*, not *said*)

Activities for Word Level

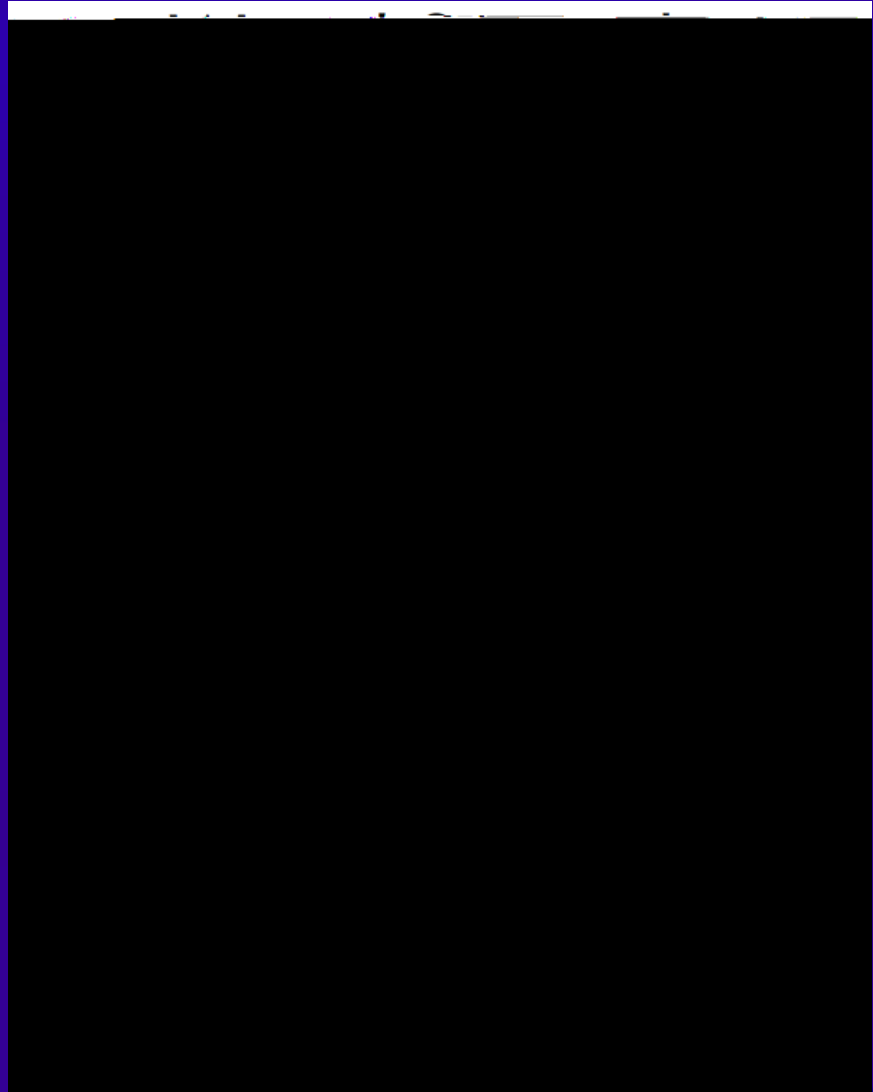
Puzzles

Card Games

Old Maid

Concentration

Go Fish



Sentence Level

Practice words in sentences in a variety of ways

Arrange words to create sentences (video on next slide)

Read sentences and match to pictures

Fill in the blank sentences

Video

Jacob

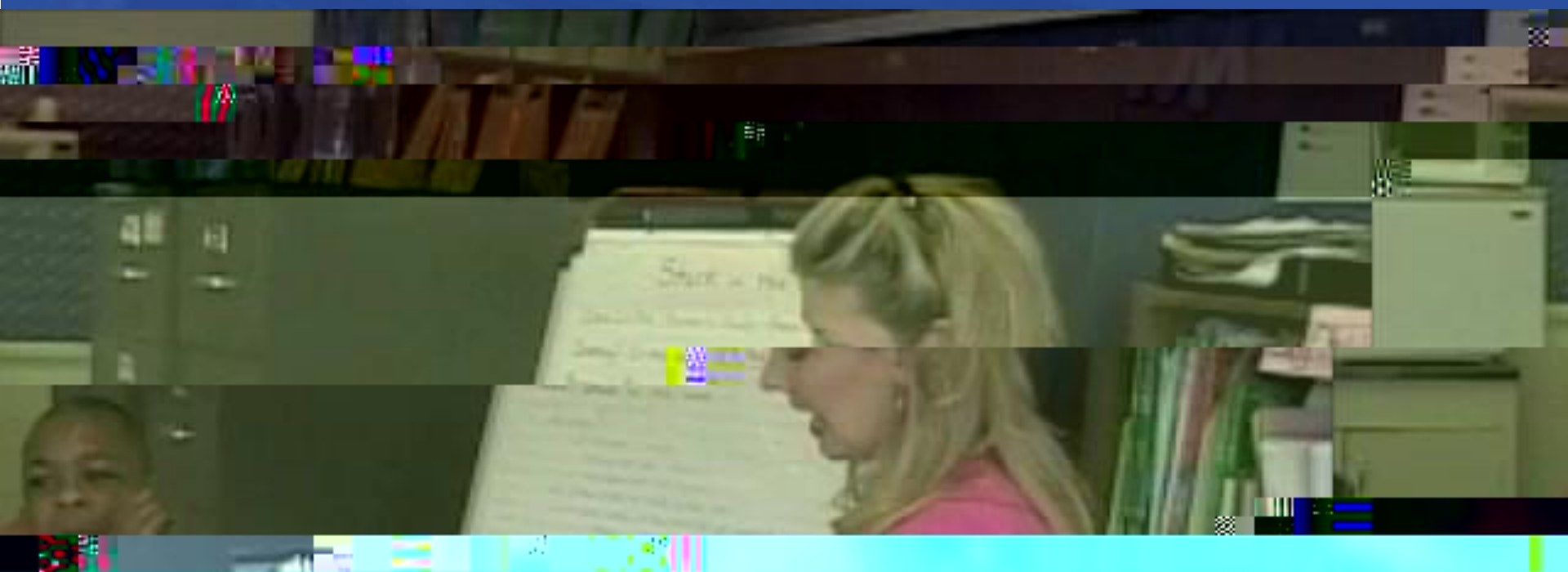
IQ in low 50s

Video from 3rd year in our intervention

At that point, he was in early to mid first-grade level

During 4th year began to unitize words

By the end of the study was reading approximately 30 words per minute



Increasing Intensity at the Text

Level Intensity

Independent

Families, peers, paraprofessionals

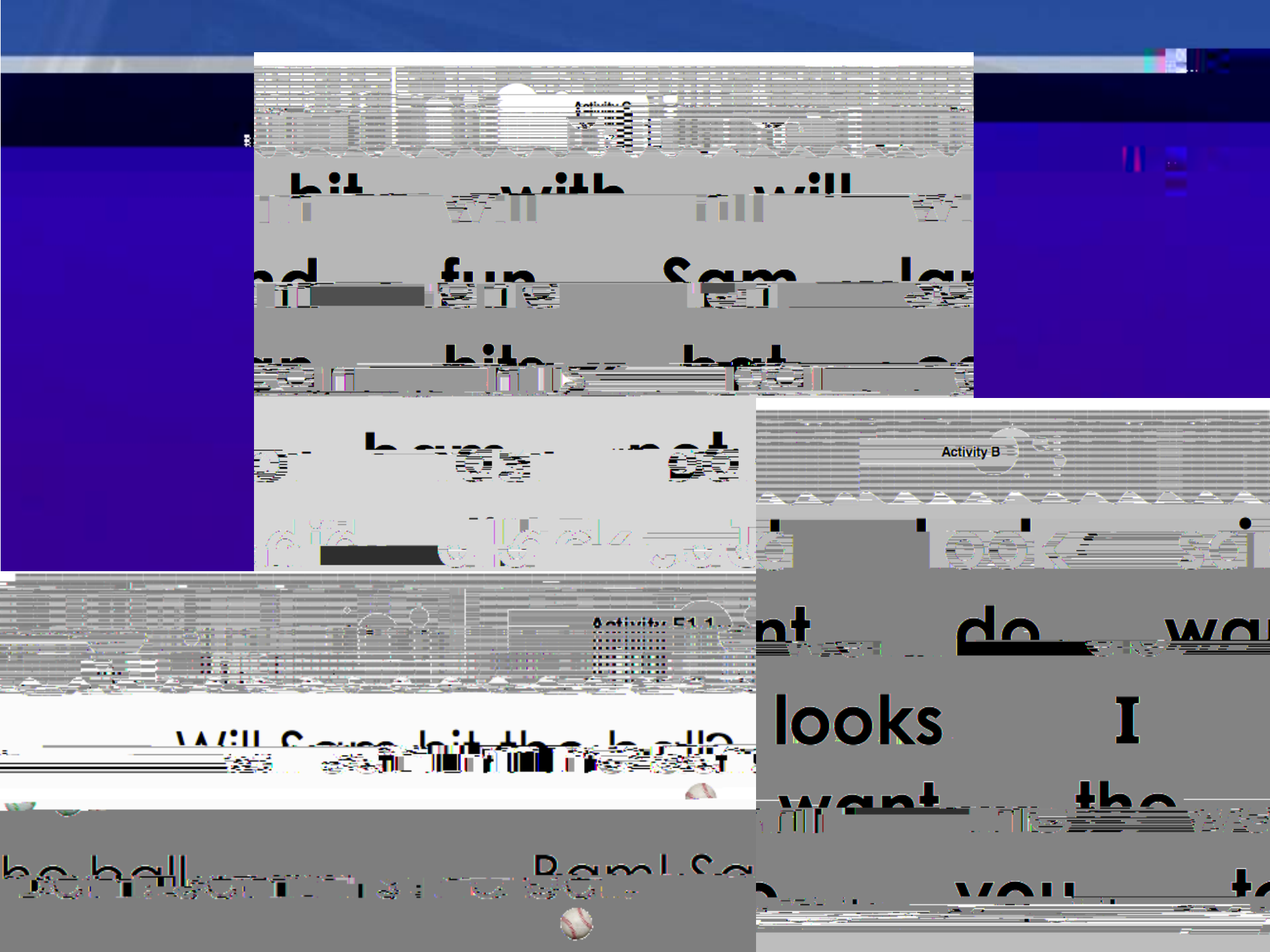
Selecting appropriate text

Increasing Intensity at the Text Level: Application Lessons

lessons that teach them to transfer skills learned during instruction in primary curriculum to specific texts

Application





hit with will

ed fun Sam lar

hit bat

have not

Activity B

Activity E1.1

Will you hit the ball?

nt do wan

looks I

want the

be ball Daml. Sa

you to

Identify words to practice from text

Error analysis chart

Word in Text	
sat	sit
slip	--
sport	spot

Arrows (post-it flags)

they struggle to figure out)

Practice these words and similar words

Project Maximize

For further information:

www.smu.edu/Maximize

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