

Presentation

- **Dr. Steve Graham**, Currey-Ingram Professor of Special Education and Literacy, *Peabody College of Education and Human Development, Vanderbilt University*
- **Mr. Michael Hebert**, *Doctoral Student in Special Education, Peabody College of Education and Human Development, Vanderbilt University*



Panel Discussion

- **Dr. Tanya Baker**, Director of National Programs, *National Writing Project*
- **Dr. Sally Hampton**, Senior Fellow, *America's Choice*
- **Mr. David Johns**, Senior Education Advisor, U.S. Senate Committee on Health, Education, Labor, and Pensions



Twitter

- #writing2read




WRITING TO READ



Steve Graham

Michael Hebert

Vanderbilt University

- 
- **Good News** - Some progress has been made in improving the literacy achievement of students in American schools during the last 20 years
 - **Bad News** – The progress has been limited, and the majority of students still do not read or write well enough to meet grade-level demands.

For Example

- Most Recent National Assessment of Educational Progress in Reading (2009) found:
 - 67% of grade 4 students scored at the basic-level or below (33% below)
 - 68% of grade 8 students scored at the basic-level or below (25%)

This Has Serious Implications for

- School Success
- Economic Success
- Health
- Personal Well Being
- Participation in Social and Civic Activities

As a Result -

- There has been a systematic and concerted effort in this decade to identify effective practices for teaching literacy skills
 - National Reading Panel
 - Reading Next
 - Writing Next

One Overlooked Avenue



For enhancing Reading Skills has been

Writing

Why Do We Think Writing Might be Useful?

1. Reading and Writing are both functional activities that can be combined to accomplish specific goals, such as learning new ideas presented in a text.

For example, writing about information in a science text should facilitate comprehension and learning, as it provides the reader with a means for **recording, connecting, analyzing, personalizing,** and **manipulating** key ideas from the text.

Why Do We Think Writing Might be Useful?

2. Reading and Writing are connected, as they draw upon common knowledge and cognitive processes. Consequently, improving students' writing skills should result in improved reading skills.
3. Reading and Writing are both communication activities, and writers should gain insight about reading by creating their own texts, leading to better comprehension of texts produced by others.

This Report Answers Three Questions (using meta-analysis)

1. Does writing about material read enhance students' comprehension of text?
2. Does teaching writing strengthen students' reading skills?
3. Does increasing how much students' write improve how well they read?

Inclusion Criteria

1. Studies employing an experimental or quasi-experimental design were included
2. Studies were included if the treatment group wrote or received writing instruction
3. Studies were excluded if it was not possible to isolate the effect of the writing activity or writing instruction
(e.g., if instruction included more than writing – for example, students did more than write about the text read)

Inclusion Criteria

5. Studies were excluded if students in the comparison condition wrote or received writing instruction
6. An included study had to assess reading performance
7. Studies were excluded if the writing treatment was identical to the reading outcome measure
(e.g., if there were summary writing outcomes for a summary writing treatment)

Inclusion Criteria

8. Studies were included if they involved students in grades 1 to 12
9. Only studies that provided the data needed to calculate a weighted average effect size were included

Conducted a Thorough Search

- 260 Electronic searches in 4 databases
- Hand searches of 8 literacy journals (entire history)
- Searched for references in Earlier Reviews
- Reference Lists of all obtained papers were searched

Located 93 Experiments that Met Criteria

Calculated an effect size by subtracting the mean score of the treatment group at posttest from the mean score of the control group and divided the difference by the standard deviation of the posttest score for all students.

For studies that did not involve randomization (i.e., quasi-experimental studies), we applied the same procedure but corrected posttest scores using students' pretest scores.

Reading Outcome Measures

We calculated separate effect sizes for

- Reading comprehension
 - Example include: short answer questions, multiple choice tests, essay tests, summaries
- Reading Fluency
 - Word reading skills (decoding, or nonsense word assessments)
- *If there was more than one measure for a reading construct, we averaged the effect sizes of each together

There Were Also Two Types of Tests

- Norm-Referenced Standardized Tests: Provide a more general measure of improvement
- Researcher-Developed: Are more closely tied to what is taught

Comparison Conditions

Almost 90% of the comparison conditions involved reading

- Reading
- Reading & rereading
- Reading & studying
- Reading & discussion
- Reading instruction

So What Did We Find?



Does writing about material read enhance comprehension of text?

- **Average Weighted Effect Size = 0.40 Published Standardized Norm-Referenced Tests (Based on 11 Studies)**
- **Average Weighted Effect Size = 0.51 Researcher-Designed Tests (Based on 50 Studies)**

Putting This Into Context

- Reciprocal Teaching effect size = 0.32 for norm-referenced tests, and 0.88 for researcher-designed measures (Rosenshine & Meister, 1994)
- Vocabulary instruction effect size = 0.10 for norm-referenced tests, and 0.50 for researcher-designed measures (Elleman et al., 2009)

Important to Know

- 93% of the 61 studies yielded positive results
- The studies involved students in grades 2 to 12
- In 60% of the studies students wrote about Science and Social Studies text


- The average weighted effect size for lower achieving students was .63 (12 studies; researcher designed measures)

Important to Know

- **When Students Respond to Text by Writing Personal Reactions or Analyzing and Interpreting the Text the Average Weighted Effect Size = 0.77 (Based on 9 Studies; grades 2 -12)**
- **When Students Write Summaries of Text the Average Weighted Effect Size = 0.52 (Based on 19 Studies; grades 3-12) – more effective for elementary-grade students**

Important to Know

- **When Students Write Notes About Text the Average Weighted Effect Size = 0.47 (Based on 23 Studies; grades 3 -12) – Not as effective unless students taught how to take notes**
- **When Students Answer Questions About a Text in Writing or Create and Answer Written Questions About a Text the Average Weighted Effect Size = 0.27 (Based on 8 Studies; grades 6-12)**

- 
- Detail
 - Deduct
 - Defense
 - detail

Does teaching writing strengthen students' reading skills?

- **Teaching Students the Writing Process, Text Structures for Writing, Paragraph or Sentence Construction Skills Improves Reading Comprehension (grades 1 -4)**
 - ▣ **Average Weighted Effect Size = 0.18 Published Standardized Norm-Referenced Tests (Based on 12 Studies)**
 - ▣ **Average Weighted Effect Size = 0.27 Researcher-Designed Tests (Based on 5 Studies)**

Does teaching writing strengthen students' reading skills?

- **Teaching Sentence Construction and Spelling Skills Improves Reading Fluency (grades 1- 7)**
 - ▣ **Average Weighted Effect Size = 0.79 Published Standardized Norm-Referenced and Researcher-Designed Tests Combined (Based on 4 Studies)**
- **Teaching Spelling Skills Improves Word Reading Skills (grades 1- 5)**
 - ▣ **Average Weighted Effect Size = 0.68 Published Standardized Norm-Referenced and Researcher-Designed Tests Combined (Based on 5 Studies)**

Does increasing how much students' write improve how well they read?

- **Increasing How Much Students Write Improves Students' Reading Comprehension (grades 1 – 6)**
 - **Average Weighted Effect Size = 0.30 Published Standardized Norm-Referenced Tests (Based on 6 Studies)**

TAKE AWAYS



Writing is an effective tool for enhancing reading and we need to take advantage of its power

Writing about Material Read Facilitates Comprehension

Writing Instruction Promotes Students' Growth as Readers

Increasing How Much Students' Write Makes them Better Readers

TAKE AWAYS

We need to stop “pussy footing” around about writing and make writing a central element of the reform movement

* We have effective methods for teaching writing (Writing Next)

* We know that writing facilitates content learning (Writing Next)

* We know that writing facilitates reading and reading development (Writing to Read)

TAKE AWAYS

This does not mean that writing instruction should replace reading instruction. The two should work together to promote students' literacy growth.

TAKE AWAYS

We still need to know more!

We encourage IES, NIH, and NSF to make writing a special priority for research. It is important for each of these agencies to do this, given the increasing importance of writing in today's world and its potential for enhancing learning and reading



- steve.graham@vanderbilt.edu

- michael.a.hebert@vanderbilt.edu

