The Power of Persistence

Promoting Motivation, Self-Regulation, & Engagement for Struggling Readers

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Middle Tennessee State University
A little about your presenter...

• Amy Elleman
  • Educator for over 20 years
  • Practical experience as teacher, reading specialist, and administrator
    • Pre-K to high school special education
    • Prefer primary and middle school
    • Most interesting job was as a teacher and administrator in a school for students with emotional and behavior problems
  • Decided to go back to school to find better solutions
  • Research experience at Vanderbilt and MTSU
    • Meta-analysis, assessment, and field interventions
    • Interventions focused on struggling readers in elementary and middle school
  • Currently an assistant professor in the Literacy Studies Ph.D. Program at Middle Tennessee State University
Current Literacy Challenges

• National Assessment of Educational Progress
  • 31% of fourth grade students and 24% of eighth grade students score below a basic level of reading comprehension (NAEP, 2015)

• Only 50% of students who take the ACT are ready for college-level reading (ACT, 2005)
Skilled Reading is Complex
(Scarborough, 2001)

THE MANY STRANDS THAT ARE WOVEN INTO SKILLED READING

LANGUAGE COMPREHENSION

BACKGROUND KNOWLEDGE
(facts, concepts, etc.)

VOCABULARY
(breadth, precision, links, etc.)

LANGUAGE STRUCTURES
(syntax, semantics, etc.)

VERBAL REASONING
(inference, metaphor, etc.)

LITERACY KNOWLEDGE
(print concepts, genres, etc.)

WORD RECOGNITION

PHONOLOGICAL AWARENESS
(syllables, phonemes, etc.)

DECODING (alphabetic principle, spelling-sound correspondences)

SIGHT RECOGNITION
(of familiar words)

SKILLED READING:
Fluent execution and coordination of word recognition and text comprehension.
Why do students struggle with comprehension?

• Decoding & sight word recognition
• **Language** (e.g., syntax, morphology, semantics)
• **Reasoning** (e.g., inference, analogical skills)
• **Executive function** (e.g., meta-cognition, self-regulation, attention, working memory)
• Vocabulary
• Knowledge
• Motivation
• Print exposure
Lower levels of reading ability, motivation, and low reading volume.

Texts are often not complex enough to foster growth or are mismatched to learners.

Instruction often consists of testing, not teaching comprehension.
Visible Learning for Teachers: Maximizing Impact on Learning (Hattie, 2012)
## Rate the Impact (adapted from Hattie, 2012)

<table>
<thead>
<tr>
<th></th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
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<tbody>
<tr>
<td>Comprehension programs</td>
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<td>Concept mapping</td>
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<td>Direct instruction</td>
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<td>Feedback</td>
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<td>Home environment</td>
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<tr>
<td>Matching teaching with student learning styles</td>
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<td>Meta-cognitive strategy programs</td>
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<td>Phonics</td>
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<td>Reciprocal Teaching</td>
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<td>Student control over learning</td>
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<tr>
<td>Vocabulary instruction</td>
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<tr>
<td>Whole language programs</td>
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<tr>
<td>Teacher expectations</td>
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<tr>
<td>Student expectations</td>
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</tbody>
</table>
Dancing...

- Small: $d = 0.30$
- Moderate: $d = 0.50$
- Large: $d = 0.80$
<table>
<thead>
<tr>
<th>Rate the Impact (adapted from Hattie, 2012)</th>
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<td>Teacher expectations</td>
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<tr>
<td><strong>Student expectations</strong></td>
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</tbody>
</table>
# Social Psychological Interventions in Education: They’re Not Magical (Yeager & Walton, 2011)

<table>
<thead>
<tr>
<th>Participants</th>
<th>Intervention</th>
<th>Results</th>
</tr>
</thead>
</table>
| 1<sup>st</sup> Year College Students (Wilson & Linville, 1982;1985) | **In 1 session**, watched videos of upper classmen discussing how they turned around their poor grades when they were freshman. | • 1 week = higher scores on GRE  
• 1 year = **.27 grade points higher** & **80% less likely to drop out** of school |
| 7<sup>th</sup> grade Black and Latino students (Blackwell et al., 2007) | Attended **8 sessions of study skills** classes that focused on the malleability of the brain and how the brain gets stronger when people engage in difficult tasks. | • 1 year = **.30 grade points** higher |
| 9<sup>th</sup> grade students who had low expectations for success in science (Hullerman & Harackiewicz, 2009) | **Wrote a brief essay every 3-4 weeks** discussing how what they were learning in science applied to their lives. | • End of semester = **.80 grade points higher** |
Impact of Reading Engagement & Motivation

- Students with greater self-efficacy typically have better reading achievement (PIRLS, 2011)
- Engaged students have higher reading achievement than others (PIRLS, 2011)
- Amount of time reading predicts reading achievement and knowledge (Cox & Guthrie, 2001)
- Yet...
  - Motivation declines as children grow older (McKenna, 2009)
  - There are many competing activities for children’s attention today (Majid & Tan, 2007)
What Cognitive Science Tells Us
(Willingham, 2013; Ericsson & Pool, 2016)

• Practice (amount and quality) is the determining factor of how good someone gets at ANY skill
• Effortful learning requires sustained effort
• Learning requires energy and time
  • To make real gains, learning will be somewhat frustrating
• After initial learning, getting better in an area requires practice
  • which is often not fun (at least for the majority of us)
Deliberate Practice

• Requires clear goals and models of the skill
• Goals have to be set beyond current skills (which can be frustrating to students)
• People cannot get better just by engaging in the activity - they must be purposeful in their practice
• They must practice skills and knowledge extensively (which is not usually fun)
• They learn best when given expert models who provide mental representations, effective strategies, and immediate specific feedback
• Ultimately, students must incorporate those expert representations and effective strategies into their own practice
  • Self-regulate their learning – continually set goals, evaluate progress, and make adjustments
Three Levels of Understanding in Comprehension

**Surface Code**
Reader recognizes the words in the text.

**Textbase**
Reader understands the literal meaning of the text.

**Situation Model**
Requires the intertwining of the reader’s background knowledge with the meaning of the text.

**Reader’s Background Knowledge**
So, if optimal learning requires engaging in on-going challenges, how do we get students to gain academic expertise and become self-regulated learners?
Important Aspects of Motivation for Effective Instruction

- Self-Concept (Marsh & Craven, 2006)
- Self-Determination (Deci & Ryan, 1987)
- Perseverance & Self-Efficacy (Zimmerman, 2011)
- Self-Regulation (Harris et al., 2011)
- Mindset (Dweck & Master, 2009)
- Interest (Schiefele, 2009)

“I’ve failed over and over and over again in my life... that is why I succeed.”

Michael Jordan
## Mindset
**(Dweck, 2007 in Schrodte, 2015)**

<table>
<thead>
<tr>
<th>Fixed Mindset</th>
<th>Growth Mindset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelligence is static.</td>
<td>Intelligence can be developed.</td>
</tr>
<tr>
<td>Leads to a desire to <em>look smart</em> and therefore a</td>
<td>Leads to a desire to <em>learn</em> and therefore a tendency to</td>
</tr>
<tr>
<td>tendency to</td>
<td></td>
</tr>
<tr>
<td>• avoid challenges</td>
<td>• embrace challenges</td>
</tr>
<tr>
<td>• give up easily due to obstacles</td>
<td>• persist despite obstacles</td>
</tr>
<tr>
<td>• see effort as fruitless</td>
<td>• see effort as path to mastery</td>
</tr>
<tr>
<td>• ignore useful feedback</td>
<td>• learn from criticism</td>
</tr>
<tr>
<td>• be threatened by others’ success</td>
<td>• be inspired by others’ success</td>
</tr>
</tbody>
</table>
A writing intervention for kindergartners
(Schrodt, 2015)

**Writer’s Workshop**
- Mini-Lessons and Modeling
- Independent Writing Time

**Mindset Instruction**
- Children’s Literature
- Mini-Lessons about the Brain
- Ziggy and Nash Stories

**Self-Regulation Strategies**
- Word Wall
- Self-Talk Checklists
- Self-Editing Checklists
Mindset Lessons on the Brain
(Schrodt, 2015)

• Interactive read aloud of *My Fantastic Elastic Brain* by Dr. JoAnn Deak
• Rubber band ball activity: size of brain, malleability and plasticity of brain
• “When you TRY HARD to learn something new CONNECTIONS grow and your brain keeps STRETCHING.”
  • TRY HARD: make muscle arms
  • CONNECTIONS: place each of your ten fingers together at the fingertips
  • STRETCHING: stretch your arms as wide as you can
Self-Regulation Checklists

• Stretching Out Tricky Words: Mini lesson with Anchor Chart

**STRETCH YOUR WORDS**

• Say it slowly

• Listen to the sounds you hear

• Keep saying the words slowly

• Write down the letters
Self-Regulation Checklists

- I can do it!
- A mistake? GREAT! Mistakes help me learn better!
- I will train my brain and keep trying!
- I will use my strategies to help me!
- Bring it on! I like a good challenge!
- This may take some time and effort, but it will be worth it!
Mindset Lessons & Assessment: Ziggy and Nash
(Schrodt, 2015)

ZIGGY: Growth Mindset

• “Bring it on! I can do it!”
• Likes challenges
• Increases effort and uses strategies when faced with difficulties

NASH: Fixed Mindset

• “I like to do easy things. Don’t give me many challenges.”
• Likes to stick with easy activities
• Quits or asks for help in the face of difficulties
RESULTS: Literacy and Writing Motivation Survey

Does the writer’s workshop and mindset instruction increase literacy and writing motivation in young children?

\[ t(26) = 3.36, \quad p < .001, \quad d = 2.17. \]
Do children persevere through challenging writing tasks?

RESULTS: Writing Challenge Task

\[
F(1, 24) = 39.76, \quad MSE = 4.11, \quad p < .001, \quad d = 2.49.
\]
RESULTS: TEWL-3 Standardized Writing Measure

How does the writer’s workshop plus mindset instruction affect the overall writing achievement on a standardized measure?

Basic Writing pre-test score as a covariate, $F(2, 23) = 12.69, p < .001$, Wilks’ $\lambda = 0.48$.

Contextual Writing pre-test score as a covariate, $F(2, 23) = 13.59, p < .001$. Wilks’ $\lambda = 0.46$. 

$d = 1.77$

$d = .72$
RESULTS: Writing Sample Rubric

Is the writer’s workshop plus mindset instruction effective on a near measure of writing closely aligned to instruction?

\[ t(26) = 11.48, \quad p < .001, \quad d = 2.89 \]
Pre-Interviews Data Exemplars

• “It’s hard to get the words right.”
• “Mistakes make me embarrassed.”
• “I just write easy words.”
• “I don’t really think I can do it.”
• “The hardest thing about writing is being smart.”
• “In first grade, I will be a good writer.”
• “I only write if my mom tells me to.” (if I have a birthday card)
• “I need my mom’s help.”
Post-Interview Data Exemplars from the Experimental Group

• “Mistakes are good because they help your brain not do it again next time.”
• “I use my word wall.”
• “Use your imagination!”
• “You can’t give up! Concentrate and practice!”
• “I am good at writing lots of hard words.”
• “I like to write about stuff I really like, like I know what I’m going to write about- I don’t need help!”
Spelling Strategies: Letter Sounds

“I don't try to think of lots of /ing/ words but then sometimes I just have to write /ing/. That wasn't my plan, just to write lots of /ings/, but then I sound out the rest...but then, I remembered the word ring to write /ing/, so then I just write i-n-g.”
“One of the hard things is thinking of a story,” said Cory. Some of the children agreed, but Neal chimed in with, “No, it isn’t that hard if you use your tools.”

Tomas said, “I used that thing to help me remember the circus.”
Strategies for Writing Ideas: Picture Dictionary

“I like this picture. It is a real story.” - Shawn
Strategies for Writing Improvement: Editing Checklist

- “Look at your checklist.”
- “I need spaces.”
- “You also need a capital and a period.”
Leo: Sample One

• “There’s a snake on the bridge.”
• Print carries meaning
• Picture matches his words
• Write all phonemes of the word “bridge”
• Still needs one-to-one correspondence in written words
• Still needs punctuation
Leo: Sample Two

- “There was a serpent.”
- Moving to conventional writing- three sight words used (i.e. there, was, a)
- Inventive spelling (srptit)
- Spaces between words
- Picture matches words
- One sentence
- No capitals or punctuation
Leo: Sample Three

- Voice
- Sight words (there, is, a)
- /ing/ sound
- Experimenting with punctuation
- Font-change (“farting” in green)
- Use of sound
- Picture matched words
- Increased stamina (2 sentences)
- Uses spaces
- Still needs capitals
Leo: Sample Four

- Improved writing stamina (4 sentences)
- 8 sight words
- CVC words
- Inventive spelling and experimenting with conventions (silent “e” experimenting in “named” and “member”)
- Picture matches words
- Spaces
- Writes about a topic meaningful to him
- “I want to write bigger stories.”
Writing Achievement

• Percentile changes
  • 47th → 86th Experimental Basic writing
  • 50th → 79th Control Basic writing
  • 1st → 45th Experimental Contextual writing
  • 1st → 3rd Control Contextual writing

• The students in the experimental group wrote more words and used more complex writing conventions than that of the control group.

• The experimental group was able to talk more in depth about their writing and their thinking.

• During intervention discussions and post-interviews, the students in the experimental group were aware of their own thinking and learning, as they were able to speak about the strengths and weaknesses of their writing as well as set goals for future writing.
Selecting Just-Right Texts
The Text Complexity Gap

• Only 50% of high school students are ready for college-level reading (ACT, 2005)

• Performance on complex text distinguishes students who are ready for college and those who are less ready

• Two year gap in text complexity between last year of high school and first year of college

• Decline in text complexity over the past few decades
Instructional Shifts

• Standard 10: Regular practice with complex text and academic language
  • Standards highlight the complexity of the texts students must be ready to read to face the demands of college and careers
  • Staircase of text complexity – consider level of academic vocabulary and syntax
  • Academic vocabulary – words that appear in a variety of content areas (critical for reading comprehension and related to level of text complexity)
  • Build knowledge through rich informational texts
Texts, Lexiles, and Grade Levels
Popular Metrics for Text Complexity

<table>
<thead>
<tr>
<th>Metric</th>
<th>Text Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flesch-Kincaid</td>
<td>Word length &amp; sentence length</td>
</tr>
<tr>
<td>Dale-Chall</td>
<td>Word frequency &amp; sentence length</td>
</tr>
<tr>
<td>Lexiles (MetaMetrics)</td>
<td>Word frequency &amp; sentence length</td>
</tr>
<tr>
<td>ATOS (Renaissance Learning)</td>
<td>Word difficulty, word length, sentence length, text length</td>
</tr>
<tr>
<td>Coh-Metrix</td>
<td>Narrativity, referential cohesion, syntactic simplicity, word concreteness, deep cohesion</td>
</tr>
<tr>
<td>Degrees of Power</td>
<td>Word length, word difficulty, sentence length, within-sentence punctuation</td>
</tr>
<tr>
<td>Pearson Reading Maturity Metric</td>
<td>Word Maturity Metric, word length, sentence length, sentence punctuation, local cohesion, paragraph complexity, order of information</td>
</tr>
</tbody>
</table>
Using Quantitative Measures

Advantages

• Objective
• Computer generated
• Metric for increasing difficulty

Disadvantages

• Content and knowledge are not considered
• Complex ideas may be present without complex syntax or vocabulary
• May limit student choice
• Standards may be too difficult for struggling readers to meet goals
Features of Text Complexity  
(CCSS, Appendix A)

<table>
<thead>
<tr>
<th>Qualitative</th>
<th>Quantitative</th>
<th>Reader &amp; Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Levels of meaning</td>
<td>• Readability</td>
<td>• Motivation</td>
</tr>
<tr>
<td>• Structure</td>
<td></td>
<td>• Knowledge</td>
</tr>
<tr>
<td>• Language</td>
<td></td>
<td>• Experience</td>
</tr>
<tr>
<td>• Knowledge</td>
<td></td>
<td>• Purpose of task</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Complexity of the task</td>
</tr>
</tbody>
</table>
Lexile Find-a-Book

www.lexile.com
02.22.15
Getting to know Abe digitally at the Lincoln Library
Abraham Lincoln is one of the most revered and researched presidents in history. Nearly 150 years after his death, intrigue remains, so the Lincoln Library is moving more of his life online.
Differentiated Texts:
Scholastic Action

Award Winners

• Young Reader’s Choice Awards
  • http://www.pnla.org/yrca

• Newberry and Caldecott Award Winners
  • http://www.underdown.org/childrens-book-awards.htm

• Series
  • http://www.kidsreads.com/series/index.asp
YALSA's Teen Book Finder

App features include:
• a homepage featuring three titles from the database, refreshed each day
• the ability to search for books by author, title, award/list year, genre, by award, and by booklist
• a Find It! button, that shows users where to find the book at a nearby library
• a Favorites button, to create an individualized booklist
• the ability to share books from the Teen Book Finder on Twitter and Facebook
Interest, Motivation, & Engagement

Practical Tips
Attitudes

- Worsen over time
- Worsen more rapidly for poor readers
- Girls possess more positive reading attitudes
- Instructional methods can positively influence attitudes
- Ethnicity by itself is not strongly related to reading attitudes

Interests

- Number of interests decline by age
- Typical male interests are science, machines, sports, and action/adventure
- Typical female interests include interpersonal relationships
- Interests across gender or ability include humor, animals, and the unusual
## Interest Inventory Questions

<table>
<thead>
<tr>
<th>My Interests</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1. I like movies that...</td>
<td></td>
</tr>
<tr>
<td>2. My favorite movie is...</td>
<td></td>
</tr>
<tr>
<td>3. My favorite TV show is...</td>
<td></td>
</tr>
<tr>
<td>4. I like books that...</td>
<td></td>
</tr>
<tr>
<td>5. My favorite book is...</td>
<td></td>
</tr>
<tr>
<td>6. On weekends my favorite thing to do is....</td>
<td></td>
</tr>
<tr>
<td>7. I like books about...</td>
<td></td>
</tr>
<tr>
<td>8. The best thing about reading is...</td>
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</tr>
<tr>
<td>9. The worst thing about reading is...</td>
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<tr>
<td>10. Picking out books at the library is ____________ for me.</td>
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</tbody>
</table>

Adapted from McKenna & Stahl (2009) *Assessment for Reading Instruction*, p. 213
# Interest Checklist

**Tell Me What You Like**

A = I really like it!
B = I like it!
C = It’s ok.
D = I don’t really like it.
F = I can’t stand it!

<table>
<thead>
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<th>Category</th>
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<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>sports</td>
<td>UFOs</td>
<td>Science fiction</td>
</tr>
<tr>
<td>animals</td>
<td>friendship</td>
<td>fantasy</td>
</tr>
<tr>
<td>magic</td>
<td>love</td>
<td>mysteries</td>
</tr>
<tr>
<td>jokes</td>
<td>families</td>
<td>Historical fiction</td>
</tr>
<tr>
<td>monsters</td>
<td>ocean</td>
<td>biographies</td>
</tr>
<tr>
<td>detectives</td>
<td>history</td>
<td>fiction</td>
</tr>
<tr>
<td>ghosts</td>
<td>drawing</td>
<td>non-fiction</td>
</tr>
<tr>
<td>cooking</td>
<td>computers</td>
<td>graphic novels</td>
</tr>
</tbody>
</table>

Other topics I really like: __________________________

Adapted from McKenna & Stahl (2009) p. 214
Student Motivation & Engagement (IES, 2008)

• Establish meaningful and engaging content learning goals around the essential ideas of a discipline as well as the specific learning processes students use to access those ideas.

• Provide a positive learning environment that promotes students' autonomy in learning.

• Make literacy experiences relevant to students' interests, everyday life, or important current events.

• Build in certain instructional conditions, such as student goal setting, self-directed learning, and collaborative learning, to increase reading engagement and conceptual learning for students.
**Do’s & Don’ts for Increasing Self-Regulation and Reading Motivation**

<table>
<thead>
<tr>
<th>Do</th>
<th>Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Be supportive</td>
<td>• Focusing on performance oriented or task goals instead of mastery goals</td>
</tr>
<tr>
<td>• Give specific praise</td>
<td>• Giving general praise</td>
</tr>
<tr>
<td>• Know each students’ reading level</td>
<td>• Praising the completion of easy tasks</td>
</tr>
<tr>
<td>• Emphasize intrinsic motivation for reading</td>
<td>• Praising innate traits</td>
</tr>
<tr>
<td>• Provide choice whenever possible</td>
<td>• Being disorganized</td>
</tr>
<tr>
<td>• Model a growth mindset</td>
<td>• Changing text topics repeatedly</td>
</tr>
<tr>
<td>• Provide interesting and challenging materials</td>
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<tr>
<td>• Promote self efficacy</td>
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<tr>
<td>• Allow content expertise to develop</td>
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</table>
Practical Tips Grades K-2

• Include a variety of genres and types of texts (e.g., magazines, comic books, poetry) at different levels of text complexity.

• Set up a writing center that includes authentic writing activities (e.g., pen pals with older students, blank books with a list of prompts, class newsletter or blog).

• Set up a listening center

• Use Readers’ Theatre
Practical Tips for Older Students

• Wall of Fame – Recommendations or excerpts from students’ favorite books
• Book Blogs – Reviews of favorite books
• Vote for the class read aloud
• Book introductions
• Reading Aloud
  • Allow students to read silently and with a buddy before reading aloud to the entire class
• Open Mic
Assessing Reading Interests, Attitudes, and Motivation

• Attitude Inventories
  • Elementary Reading Attitude Survey (ERAS) – 20 items, can be group administered, Garfield survey
  • Reader Self-Perception Scale (RSPS) – 5-point scale along four dimensions of self-efficacy: progress, observational comparison, social feedback, physiological states.
  • Motivations for Reading Questionnaire – measures reading motivations of elementary students, 54 items
  • Adolescent Reading Attitudes Survey – rate feelings on a variety of reading activities, scores provided for recreational, academic, digital, and print reading (McKenna & Stahl, 2009)

• University of Kansas has a current grant from the United States Department of Education to develop the Adaptive Reading Motivation Measure.
  • Grades 5-12
  • 65 questions covering 6 aspects of motivation for reading
Key Aspects of Effective Comprehension Instruction

- Vocabulary
- Knowledge
- Strategy Instruction & Inference Generation
Building Vocabulary

Today for show and tell, I've brought in some flash cards I made.

Each card has a letter followed by several dashes. When I show the card, you yell the vulgar, obscene or blasphemous word they stand for! ... ready?

She's such a hypocrite about building vocabulary.
Overall Effects for Vocabulary Instruction on Comprehension (Elleman, Lindo, Morphy, & Compton, 2009)

**Standardized Measures**
- $d_{adj\ (g)} = .10$

**Custom Measures**
- $d_{adj\ (g)} = .50$

**No Reading Difficulties**
- $d_{adj\ (g)} = .39$

**Reading Difficulties**
- $d_{adj\ (g)} = 1.23$
Importance of Knowledge

• New knowledge is dependent on the integration of prior knowledge (e.g., McNamara, O’Reilly, & deVega, 2007)

• Well-connected memory stores allow quicker retrieval of information needed to generate inference (e.g., Ericcson & Kintsch, 1995; Kendeou & O’Brien, 2014)

• Readers who possess more knowledge in a domain are better able to make inferences than readers who have higher IQ or who have higher levels of overall comprehension (Schneider, Korkel, & Weinert, 1989; Yekovich, 1999)
Importance of Knowledge: Studies of Expertise
(Ericsson, 2016)

• Multiple studies show that people who have deeper knowledge in an area perform better than people who are “smarter” or “better” in initial aptitude.

• This has been shown across multiple fields of experts (e.g., chess) and studies of the influence of expertise and reading ability (e.g., baseball, heart function, Vietnam War).
Importance of Content Knowledge

• Background knowledge impacts comprehension through
  • Vocabulary
  • Allows inferences to be made
  • Increases working memory through chunking

• Daniel Willingham, (You Tube)
  • http://www.youtube.com/watch?v=RiP-ijdxqEc
Knowledge Development in Elementary Classrooms

Baniflower et al. (2013) Report of National Survey of Science and Mathematics Education
But wait...

• Knowledge is very important, however, when background knowledge is controlled, inferences are still found to be difficult for poor comprehenders (Barnes et al., 1996)

• So, background knowledge is part of the answer and other must be taught...
Inference Generation
Inference Generation in Struggling Readers

- Ability to make inferences has been shown to differentiate good and poor readers
- Passive in applying knowledge
- Demand less informational coherence or consistency
- Make fewer inferences spontaneously than good readers
Efficacy of Inference Interventions
(Elleman, 2017)

- Meta-analysis of 25 inference interventions conducted in grades 2-9
  - Majority of the studies lasted less than 10 hours
  - Few studies using a standardized measure

<table>
<thead>
<tr>
<th></th>
<th>Overall weighted ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>General ((k = 13))</td>
<td>+0.58</td>
</tr>
<tr>
<td>Inferential ((k = 25))</td>
<td>+0.68</td>
</tr>
<tr>
<td>Literal ((k = 18))</td>
<td>+0.28</td>
</tr>
</tbody>
</table>
Wrapping Up: Growth Mindset
Action-Plan

- Name at least 2 things that you could implement to improve self-regulation, persistence, and engagement with your students. Discuss with your group.

<table>
<thead>
<tr>
<th>INSTEAD OF.....</th>
<th>TRY THINKING.....</th>
</tr>
</thead>
<tbody>
<tr>
<td>I’m not good at this</td>
<td>What am I missing?</td>
</tr>
<tr>
<td>I give up</td>
<td>I’ll use a different strategy</td>
</tr>
<tr>
<td>It’s good enough</td>
<td>Is this really my best work?</td>
</tr>
<tr>
<td>I can’t make this any better</td>
<td>I can always improve</td>
</tr>
<tr>
<td>This is too hard</td>
<td>This may take some time</td>
</tr>
<tr>
<td>I made a mistake</td>
<td>Mistakes help me to learn</td>
</tr>
<tr>
<td>I just can’t do this</td>
<td>I am going to train my brain</td>
</tr>
<tr>
<td>I’ll never be that smart</td>
<td>I will learn how to do this</td>
</tr>
<tr>
<td>Plan A didn’t work</td>
<td>There’s always Plan B</td>
</tr>
<tr>
<td>My friend can do it</td>
<td>I will learn from them</td>
</tr>
</tbody>
</table>
Additional Resources

“It’s not that I’m so smart, it’s just that I stay with problems longer.”

Albert Einstein
Resources for Struggling Readers: Audio Books

• Learning through Listening
  • www.learningthroughlistening.org
• Bookshare www.bookshare.org
• Audible www.audible.com
• Recorded Books www.recordedbooks.com
• Learning Ally www.learningally.org
Favorite Websites

- www.textproject.org
- www.readingrockets.org
- www.achievethecore.org
- www.readtennessee.org
- www.fcrr.org
- www.corestandards.org
- www.childrenofthecode.org
- http://iris.peabody.edu
Literacy Motivation and Self-Regulation Resources
Text Complexity Resources
Questions?

Interested in learning more?

Consider pursuing your Ph.D. in the Literacy Studies Program at MTSU!

Please feel free to contact me at amy.elleman@mtsu.edu

Thank you for your time and attention today!