

**Using the engagement model of development  
to advance K-12 achievement  
and educator preparation.**

John T. Guthrie

University of Maryland College Park

# Aims

- 1. What is engagement in learning, exactly?**
- 2. What does research say about engaged learning?**
- 3. How is this research organized into an engagement model of student development?**
- 4. Is there a new pedagogy emerging from this model?**
- 5. What are the implications for educator preparation programs?**

# Meanings of Engagement

- **Reeve ---“engagement refers to the extent of students’ active involvement in a learning activity”**
- **Guthrie---academic engagement refers to time, effort and persistence (or resilience) in school learning**
- **Reading engagement is time spent reading.**

# **Types of engagement**

## **Behavioral engagement**

**comprises attention, effort, and persistence in tasks**

## **Cognitive engagement**

**involves deep mental processing and self-regulation**

## **Motivational engagement**

**entails interest, enthusiasm, 'grit'**

# Varieties of engagement

- **School engagement – attendance**
- **Task engagement – deep immersion**
- **Social engagement – animated conversation**
- **Classroom engagement– Pianta– active learning in classroom \***
- **Literacy engagement – Guthrie -- reading deeply with interest \***





# Misnomers

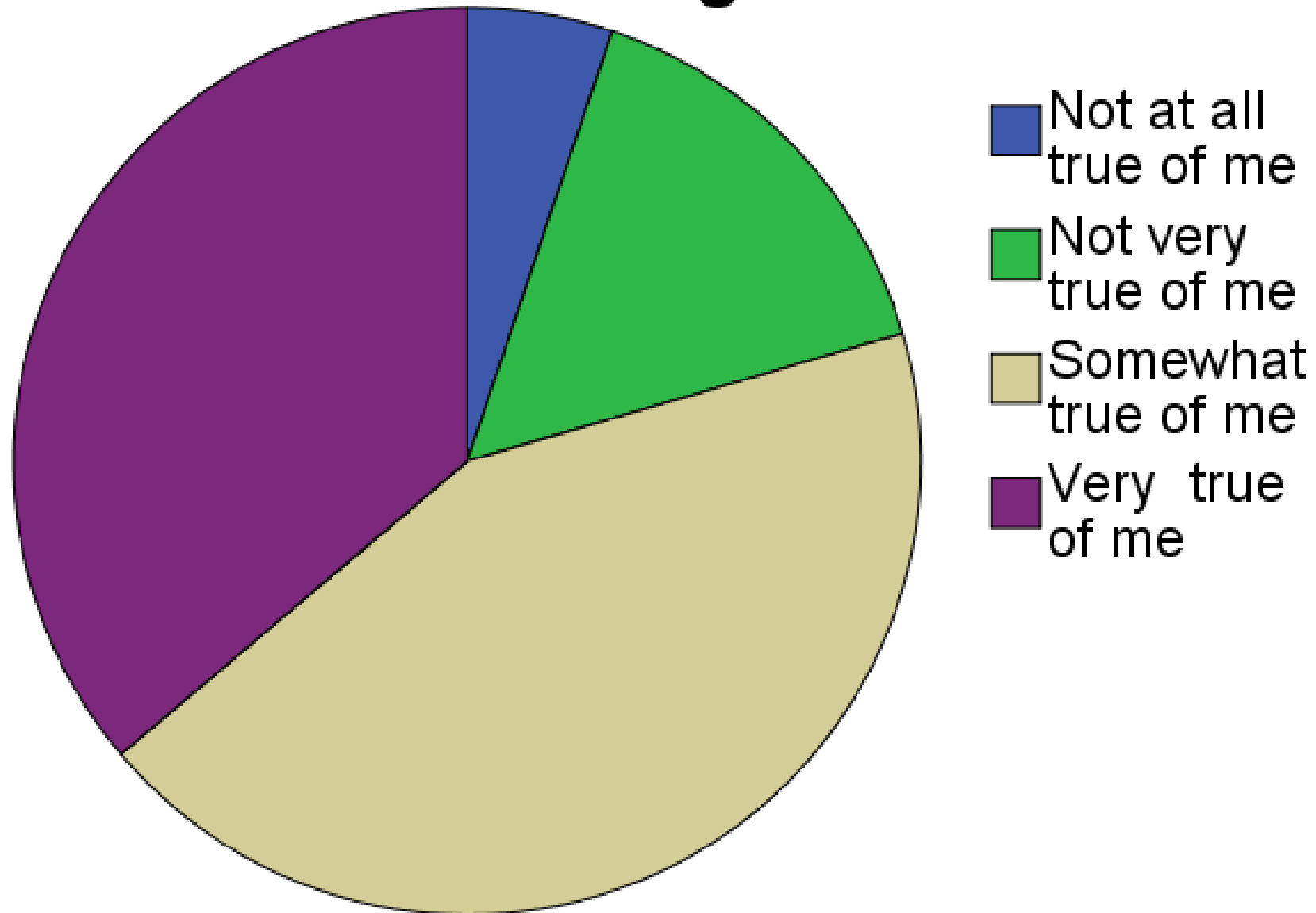
- **Community engagement** (involvement)
- **Social engagement** (interchange)
- **Conversational engagement** (talking)



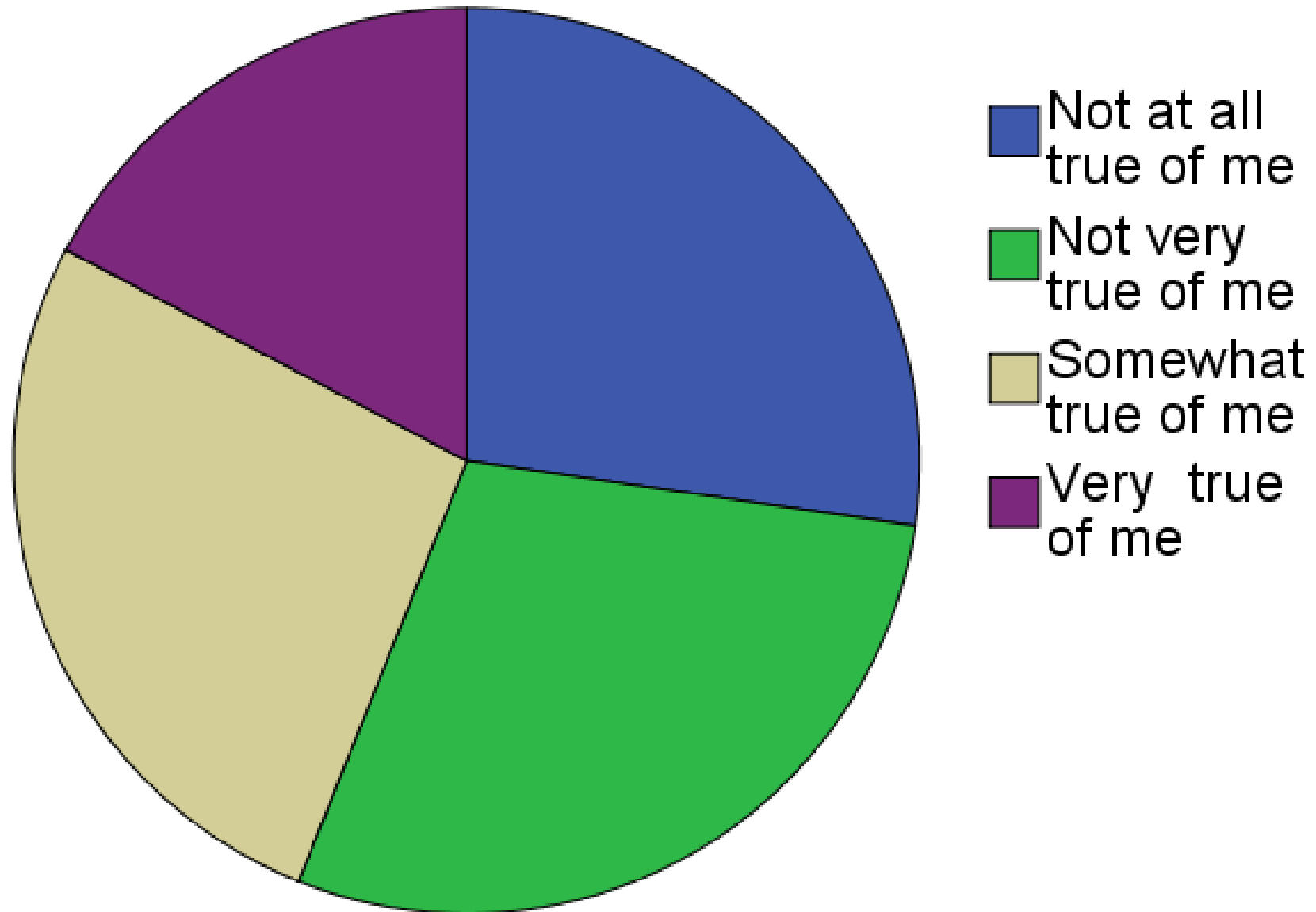
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# Information books in school are boring.

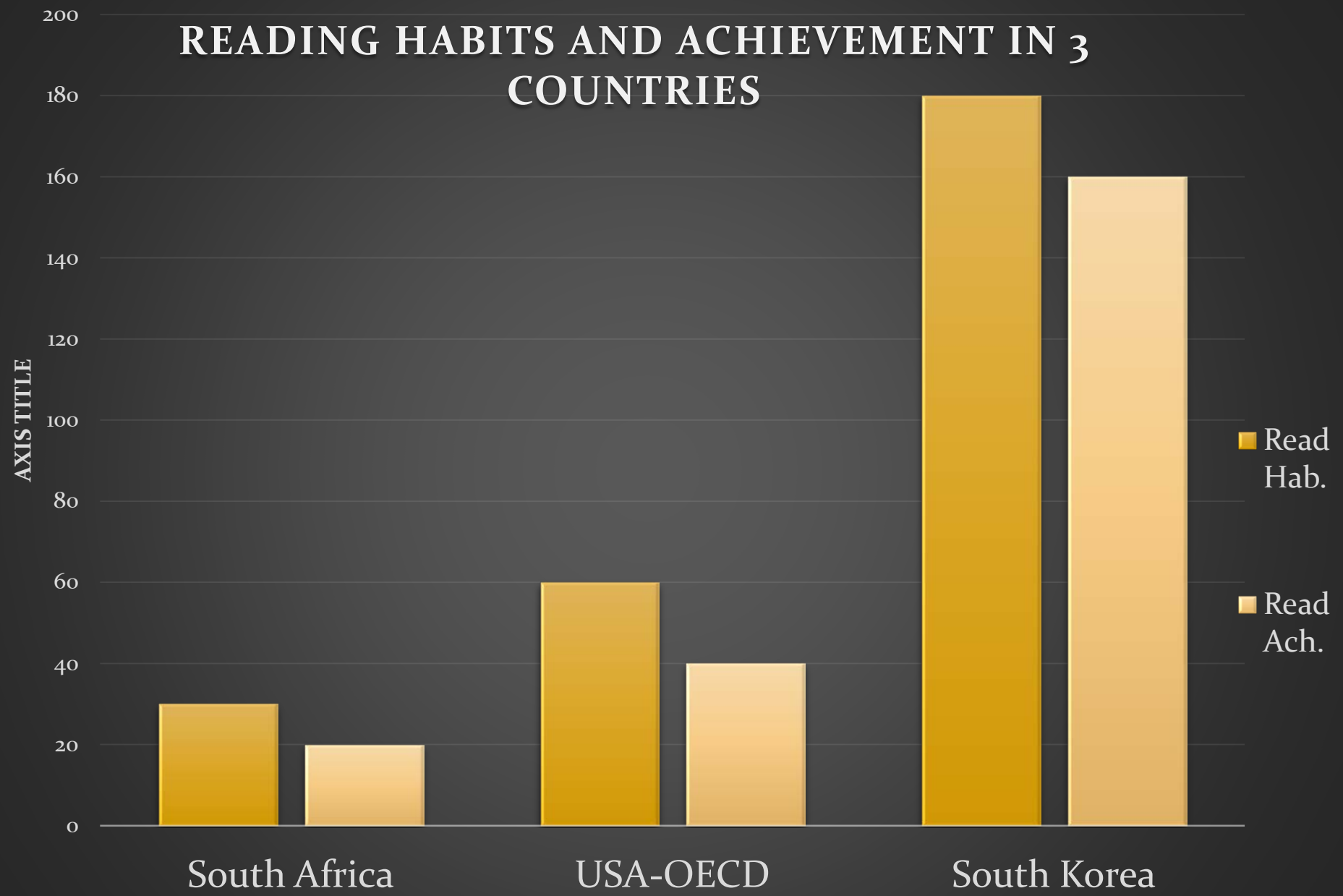


# I try to get out of reading information books for school





# READING HABITS AND ACHIEVEMENT IN 3 COUNTRIES



# Study: 105 U.S. Top High schools

Data-driven and transparent

- *“learning outcomes”*
- *“soft skills like completing work on time, resilience, perseverance and punctuality”*

Principal and instructional leaders emphasize

- *“student attentiveness and effective questioning”*

“Middle Class or Middle of the Pack?”

Jon Schnur, America Achieves.

<http://www.americaachieves.org/docs/OECD/Middle-Class-Or-Middle-Of-Pack.pdf>

# Major propositions from research

1. K-12 students' achievement depends on the quality of their engagement in learning;
  2. K-12 students' engagement relies on their teachers' explicit support for this engagement;
- Engagement and motivation as a body of knowledge extends, substantiates and enriches the cognitive foundations of education as depicted in *'How People Learn: Brain, Mind, Experience, and School'* and elsewhere.

# Research Reviews on Engagement/Motivation Support

- Institute for Education Sciences – K-2 review
- Institute for Education Sciences –Adolescent review
- Christensen, et al (2012) *Handbook of Research in Student Engagement* (800 pages)
- Guthrie, et al, In Christensen, et al 2012
- Pianta with others *Elementary School Journal*, 2013
- PISA, 2009; <http://www.oecd.org/pisa/pisaproducts/48852630.pdf>
- [www.CORILearning.com](http://www.CORILearning.com)



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# Engagement Model of Reading Development

## Reading Achievement

*Components:*

Reasoning

Literal

Fluency

Vocabulary

# Engagement Model of Reading Development



# Engagement Model of Reading Development

## Motivation in Reading

*Components:*

Efficacy  
Value  
Intrinsic  
Social



## Reading Engagement

*Components:*

Effort  
Enthusiasm  
Persistence  
Self-regulation



## Reading Achievement

*Components:*

Reasoning  
Literal  
Fluency  
Vocabulary

## Cognition in Reading

*Components:*

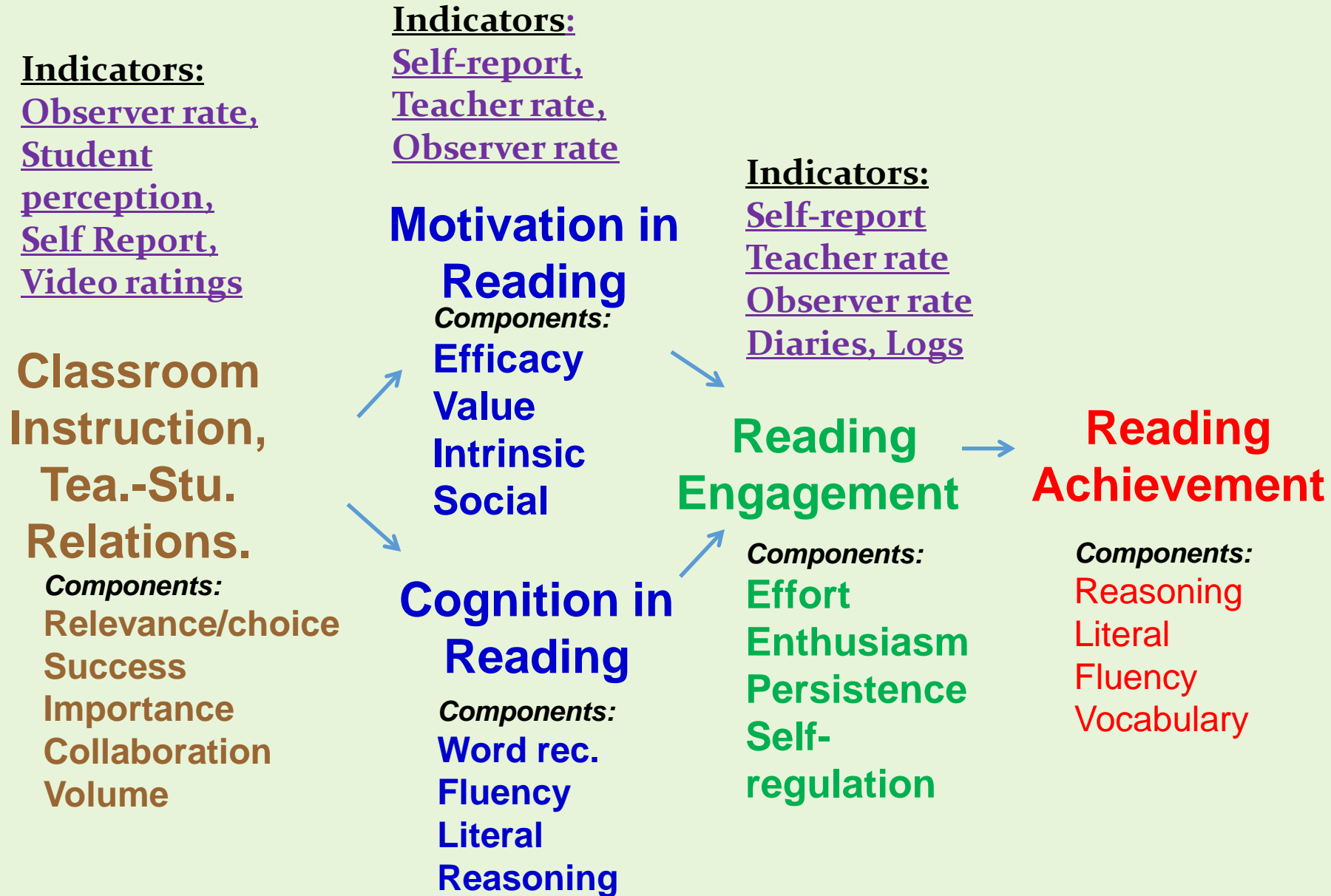
Word rec.  
Fluency  
Literal  
Reasoning



# Engagement Model of Reading Development



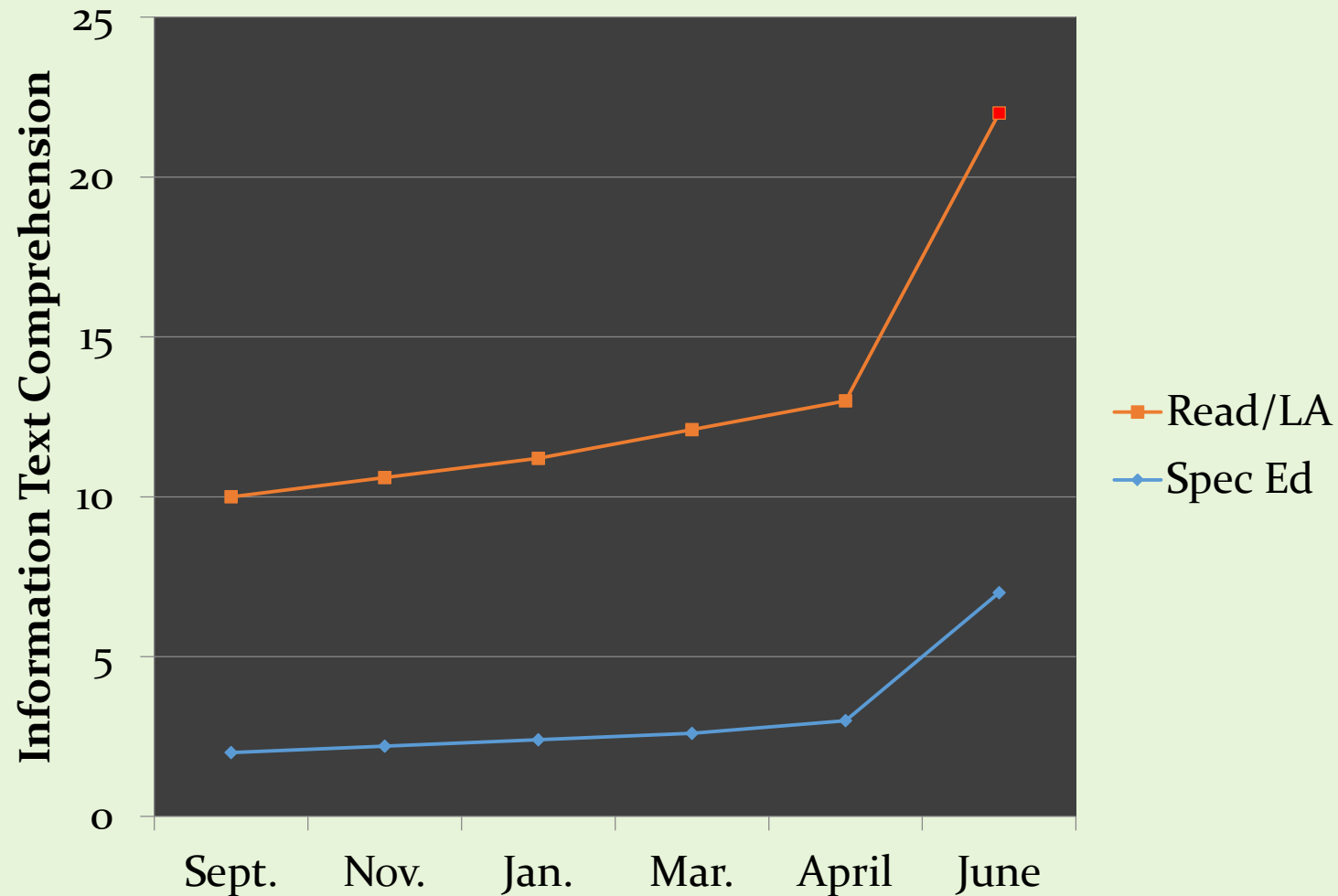
# Engagement Model of Reading Development



# Evidence for model

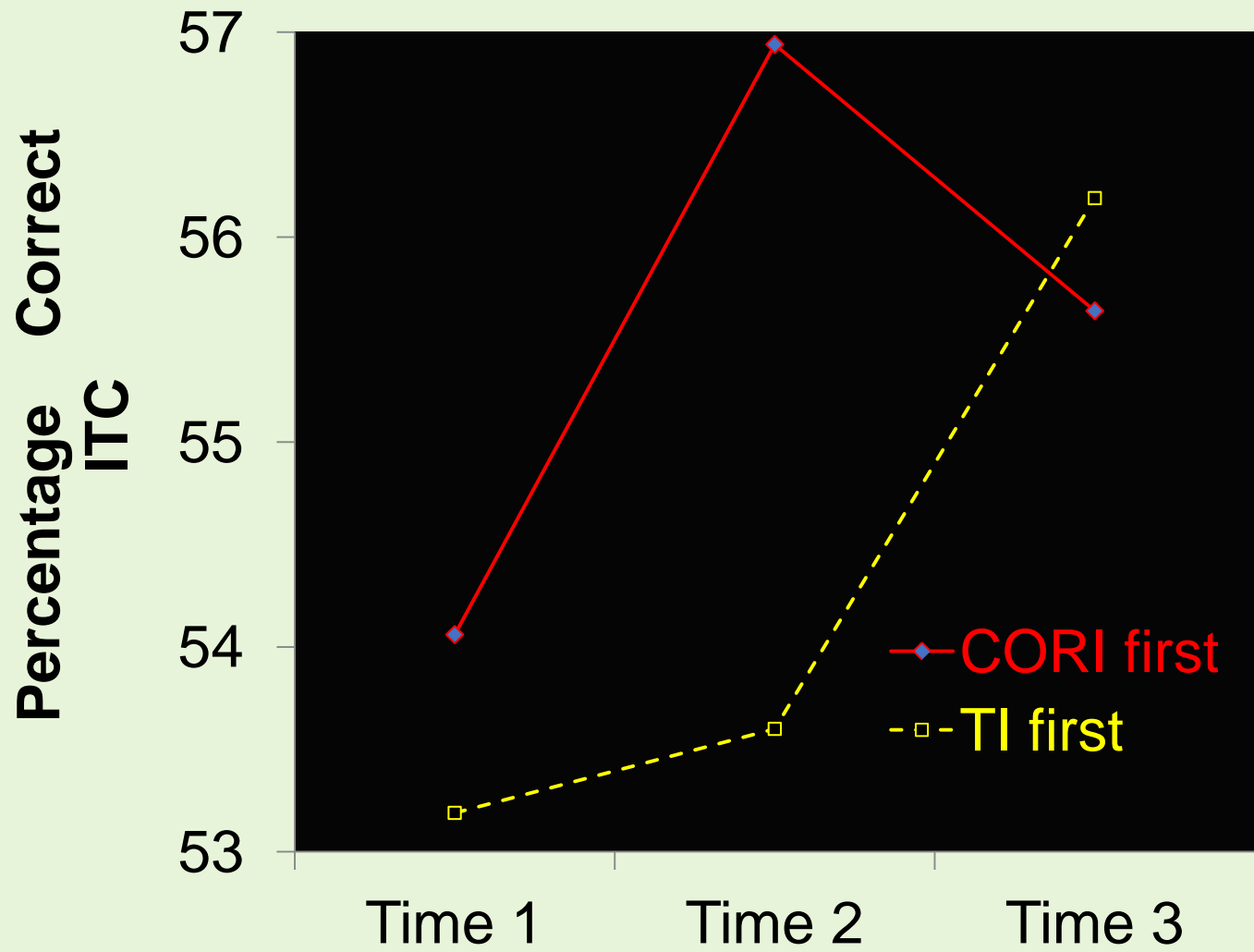
- **Correlations; Structural Equation Models**
- **Roorda (RER, 2011) Meta-analysis 92 studies:**
  - Pos T-S relations—engagement  $+0.39$
  - Neg T-S relations—engagement  $-0.32$
- **Diversity---At risk students (income, language, special needs) benefit more than non-risk from engagement support.**
- **Experiments (task level; program level)**

# NICHD study: 1200 grade 7 Ss, information text comprehension intervention, baseline.





# NICHD study: grade 7 Ss, literacy intervention (CORI, Control)(switching replications). RRQ, 2014



# Kristen's story



# Kristin's story

- 13 years old—7<sup>th</sup> grade
- Attached to her phone—any phone
- Loathes her braces—3 months to go
- Flew through Elementary school--memorizing
- Answers more Teacher questions than anyone
- Never misses homework
- Prides self on being the best student
- Facebook: “I don't like to read.”
- **BRIGHT, ACHIEVING, ENGAGED PARTIALLY**  
(valuing, but disinterested)

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# Emerging Pedagogy:

## Engagement attributes of elementary classrooms

1. **Conceptual goals---**  
topics/themes/driving questions (1) knowledge
2. **Cognitive and language instruction**  
strategies and processes for learning (2) skills
3. **Materials of instruction**  
books/textbooks/internet (1) materials
4. ***Engagement in learning***  
*student perspective/autonomy/caring* (4.5) engagement
5. **Classroom Organization**  
routines/self-directed (1) organize
6. **Assessments for Learning**  
formative/use of data for short term goals (.5) assessment

# **Emerging Pedagogy: Engagement attributes of elementary classrooms**

## *Engagement in learning*

- 1. Student perspective/autonomy/caring\***
- 2. Relevance: (knowledge, experience)\***
- 3. Responsiveness/warmth\***
- 4. Collaboration/discussion\***
- 5. Competence support/encouragement\***
- 6. Valuing—content, literacy, school\***

**\*quantified, facilitative**

## **Emerging Pedagogy:**

### **Engagement attributes of elementary classrooms**

- 7. reasons(attributions) for success/failure**
- 8. over-control/negative climate**
- 9. identity development**
- 10. contexts for multiple motivations—  
self-efficacy, interest, value, social, mastery**
- 11. differentiation of engagement support  
for: at risk/students with special needs**

# Engagement in learning: Features of each practice

- **Scaffolded:**
  - plan, announce, implement, debrief
- **Adapted:**
  - to cognitive, social, personal aspects of students
- **Scope:**
  - concepts, strategies, organization, materials, assessments
- **Coherent:**
  - announcement, timing, connections to strands
- **Student reactions and uptake**
  - participation, enthusiasm, responsibility, productivity



# **Emerging Pedagogy: Engagement attributes of elementary classrooms: Claim and Warrant**

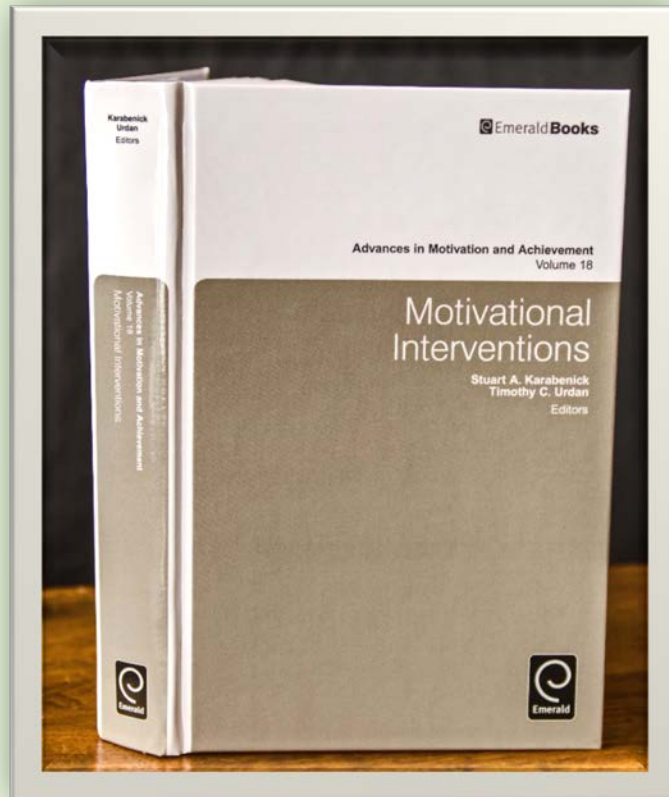
## **Claim:**

**In K-12 classrooms, engagement-supporting practices increase academic achievement (reading, math) when embedded in cognitive instruction and adapted to student diversity.**

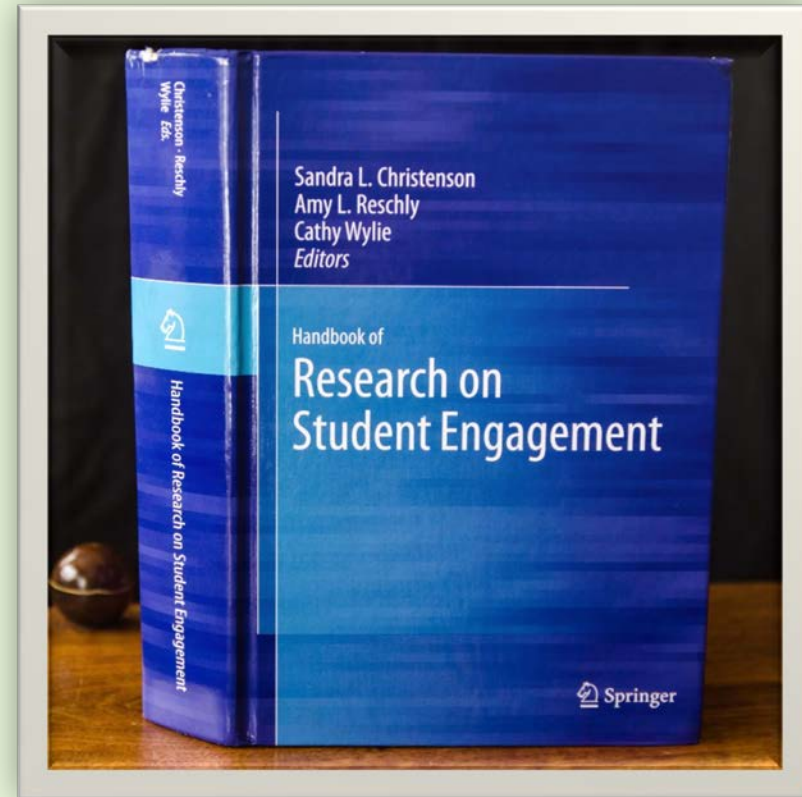
**Further: NYT from PISA 2012 “[boys get] trapped in a cycle of poor performance, low motivation, disengagement with school and lack of ambition”**

# Warrant: Evidence for Engagement Processes and Classroom Practices

Karabenick, et. al., 2014



Christensen, et. al., 2012



SURPASSING SHANGHAI

TUCKER



# SURPASSING SHANGHAI

An Agenda for American Education  
Built on the World's Leading Systems

EDITOR

MARC S. TUCKER

FOREWORD

LINDA DARLING-HAMMOND

**Emerging Pedagogy:  
Engagement attributes of elementary classrooms**

**Q. “What did you learn that helped you teach.”**

**T1: “Relaxed children who are happy to be in your classroom learn more than children who are tense or uncomfortable with their teacher.”**

**T2: “I followed the example of one outstanding Professor who really wanted the best for his students.”**

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# **Educator Preparation Programs: Context and Implications**

**For teachers, engagement is a proximal goal;  
examples of empowerment**

**For teacher educators, engagement is a purpose for  
courses and practicum.**

**For leaders of educator preparation programs,  
engagement is a target for evaluation of  
prospective teachers and programs**

# **Educator Preparation Programs: Context and Implications**

- **Quantified outcomes needed**  
(American Psychological Association Task Force on  
Evaluating Teacher Preparation –Report, 2014)
- **Instructional qualities can be quantified:**  
knowledge goals, skills, materials, *engagement*,  
organization, and assessment

# **Educator Preparation Programs: Context and Implications**

- **Feature engagement in teacher preparation**
- **Provide a course in engagement practices and theory**
- **Measure undergraduate competencies in providing engagement support during instruction**
- **Do undergraduates experience ‘engaged learning’ in higher education courses?**
  - Progress beyond National Survey of Student Engagement (NSSE)**
- **Foster research on engaged learning**



Closing:

**Before**



**After**



# References



CAEP Talk references.zip