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2011-02-18

## Developing a College-level Speed and Accuracy Test

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### Original Publication Citation

Presented at 211 Utah Conference on Undergraduate Research February 18, 211 at Weber State University

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### BYU ScholarsArchive Citation

Gilbert, Jordan; Isakson, Marne; Loud, Zach; and Miller, Austin, "Developing a College-level Speed and Accuracy Test" (2011). *Faculty Publications*. 1237.

<https://scholarsarchive.byu.edu/facpub/1237>

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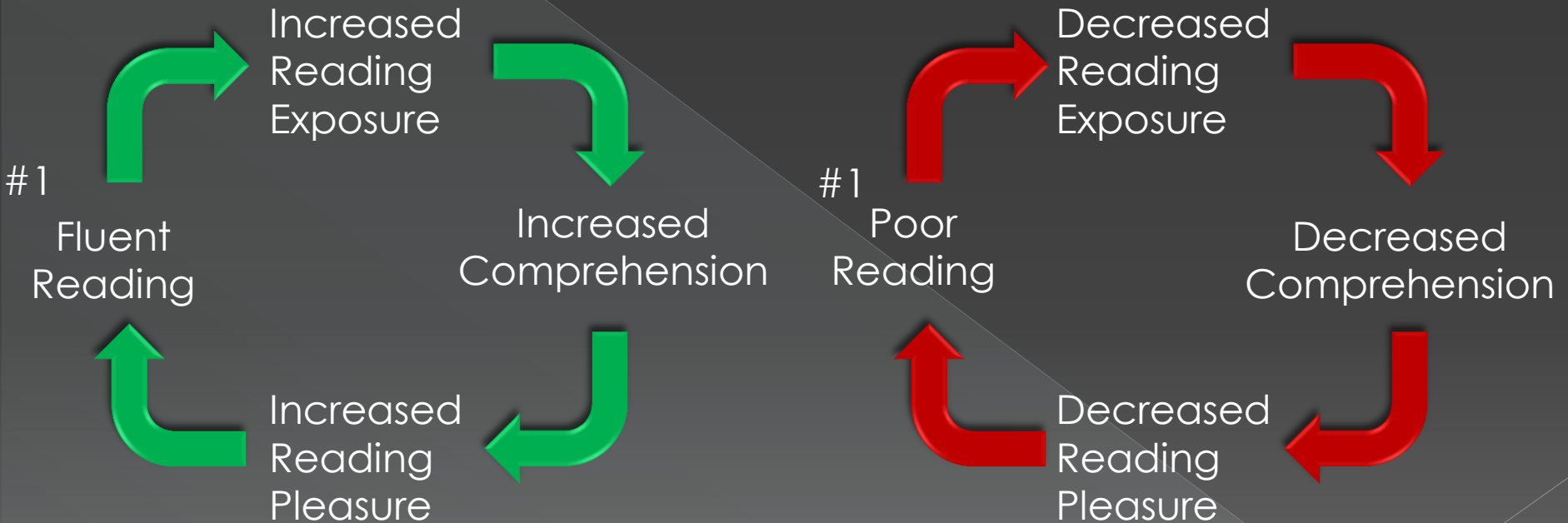
# Developing a College-level Speed and Accuracy Test

Austin Miller  
Dr. Marné Isakson  
Jordan Gilbert  
Zach Loud

# Why is reading in college important?

- We are all **consumers** of text on a daily basis (whether we like it or not)
- 30% of college freshman drop out. One of the top 5 reasons they drop out is the heavy reading demands of college
- 9% of students at the 75<sup>th</sup> percentile cannot read more than 5% of a freshman-level English textbook

# Positive and Negative Reading Cycles



# Why create another reading assessment?

- ① 1) We want to measure speed and accuracy *together*, not separately
- ② 2) Duration: many tests last anywhere from 20 minutes to over an hour
- ③ 3) Passage length: many contain paragraph-long passages
- ④ 4) Others measure higher-level comprehension
- ⑤ 5) Effective for pre- and post- testing in the collegiate atmosphere

# Why create another reading assessment? (continued)

Category of Comparison	Other Assessments	Our Assessment
Time	20-90 minutes	4 minutes
Speed and Comprehension	Measured Separately	Measured Conjunctly
Passage length	Paragraphs/Multi-page	25-42 Words/Multi-sentence
Depth of Comprehension Measure	Deep, Higher-level comprehension	Surface Level comprehension
Utility	Diagnostic Purpose	Benchmark of Progress

# Our Test Parameters

- This test has been in development for 11 years and has gone through 14 forms. These are the parameters we used in creating the assessment:
  - > 1) Self-contained – Answer is solely from the passage
  - > 2) Not based on prior knowledge (except for basic vocabulary)
  - > 3) 25-42 words
  - > 4) Last word of the passage is removed
  - > 5) Item must discriminate well between lower and higher readers
  - > 6) Internal validity
  - > 7) Given enough time, anybody should be able to answer these correctly but can they be answered reading quickly?
  - > 8) Distracters – They could be justified if slightly misread or read incompletely
- > Show test

# Method - Demographics

Category	#
Total Participants (N)	154
Male	91
Female	62
Age Range	18-54
Freshman	58
Sophomore	41
Junior	27
Senior	26
Graduate	2
Native English-speaking	149
Non-native English	5



# Sample Item

While in prison for assassinating President Garfield, Charles Guiteau received more than a hundred letters and telegrams each day approving his

**mustache**

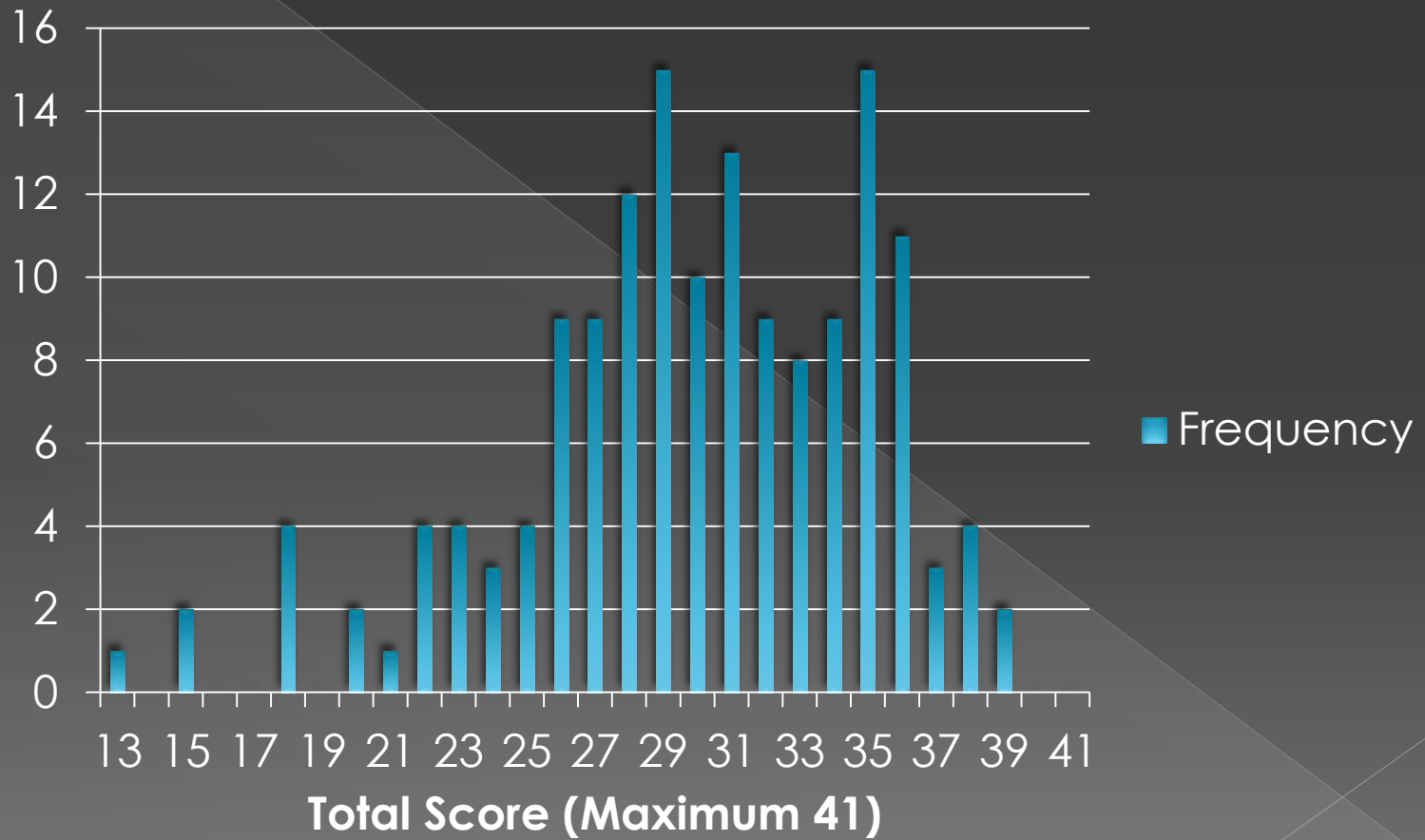
**action**

**conviction**

**death**

# Results

## Histogram



# Results (continued)

- Mean Score: 29.86 (out of 41, or ~72%)
- Cronbach's Alpha: 0.746
- Item Discrimination
  - > Removed the 5 items where more than 93% or less than 25% answered correctly

# Discussion

## ● Strengths

- > Quick and easy to administer
- > Multi-sentence comprehension
- > Reading rate and comprehension together
- > Good test of surface comprehension
- > Pre- and post- testing utility

## ● Weaknesses

- > Hand-scored (for speed's sake)
- > Only 2 administrations allowed per individual
- > No national norms
- > Not broad measure of reading ability – surface comprehension only

# Implications and the Future

- Teachers can easily check the progress of students in a reading course without heavily distracting from class time
- Electronic version