



Summary of Results from 10-week Handwriting Intervention Program using

*ez Write™ Handwriting
Curriculum*



Introduction

- The following slides summarize the results of a 10-week handwriting intervention program using ez Write.
- The results shown are derived from the following Masters thesis written by Heidi Anderson, in partial fulfillment of the requirements for the degree of Master of Arts in Literacy Education from Bethel University, August 2010.

"The Effect of Explicit Instruction on Second-Grade Students' Transcriptional Automaticity, Text Generation, and Related Processes: Is Handwriting Instruction Important"



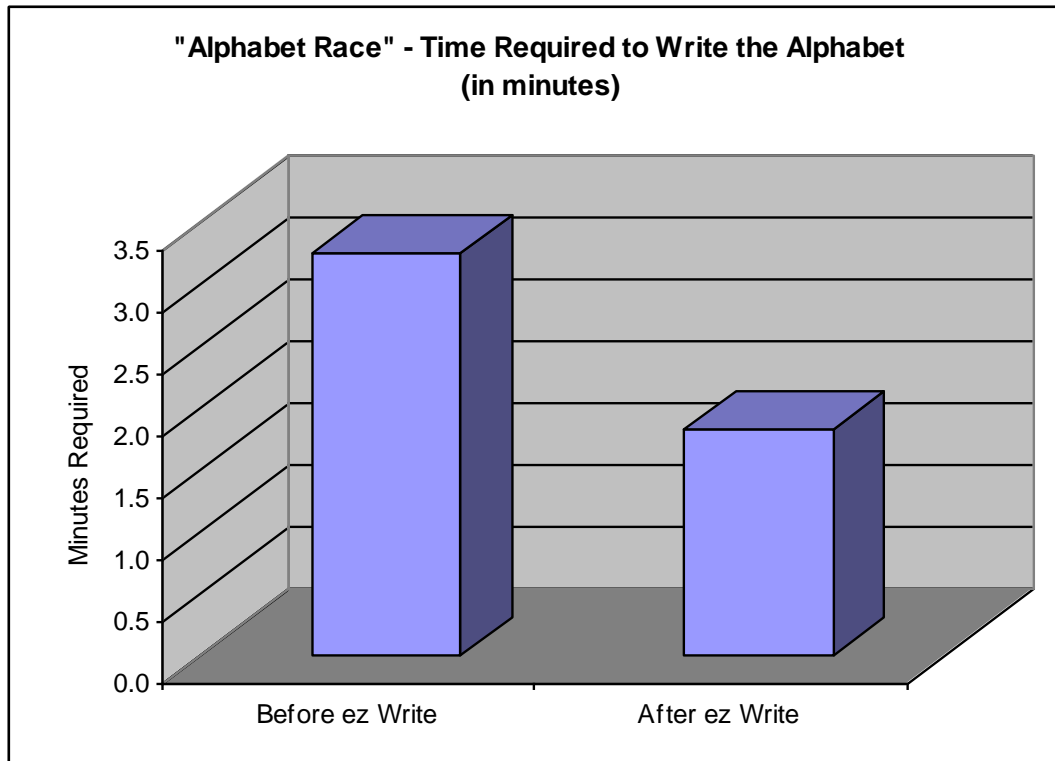
Overview of Program

- 10-week intervention program for a group of 26 second grade students at a suburban Minneapolis public school.
- Students received 3 explicit handwriting lessons per week for 10 weeks - 30 lessons total.
 - 2 of these lessons focused on building students' transcriptional automaticity using ez Write
 - The third lesson applied the transcription skills learned through ez Write to text generation, directly teaching pre-writing/writing skills.
- Pretest and posttest measurements were gathered to evaluate effectiveness of the ez Write handwriting program.



Speed and Automaticity

- The chart below measured the improvement in time required to write the entire alphabet.

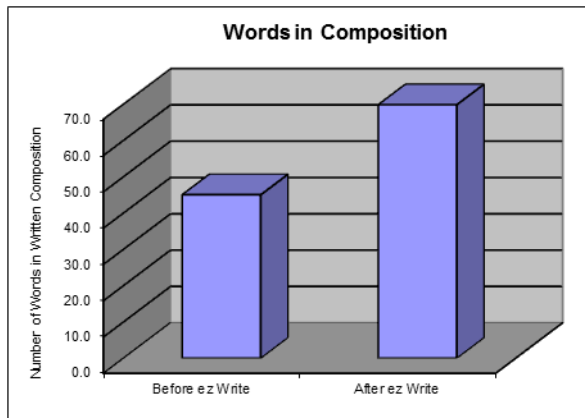


44% improvement

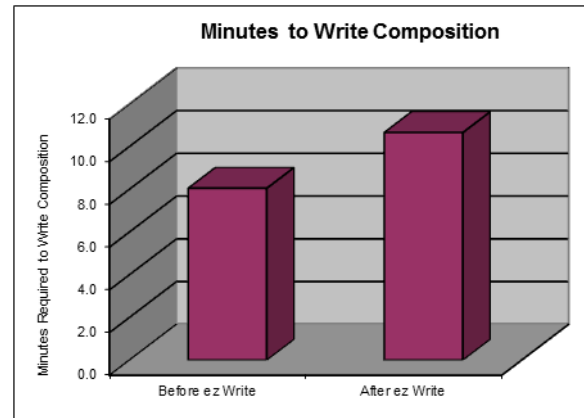


Text Generation Length of Composition

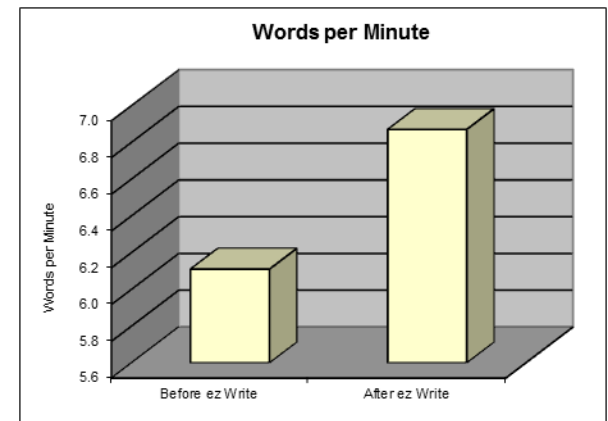
- The charts below measured the improvement in number of words in composition, minutes to write composition, and words per minute



55% improvement



32% improvement



12% improvement

- After 10 weeks of ez Write, students wrote longer compositions, spent more time creating their compositions, and expressed/wrote their thoughts much faster than prior to ez Write.

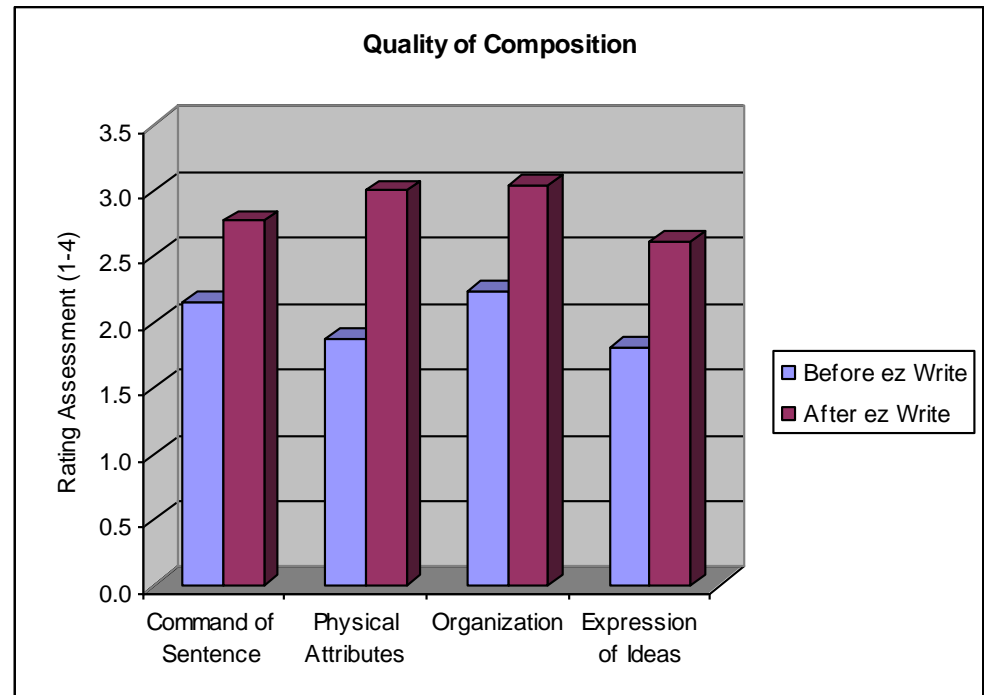


Text Generation Quality of Composition

- The charts below measured the improvement in overall quality of composition, as measured on a 4-point scale with pre-defined, objective criteria

Improvement

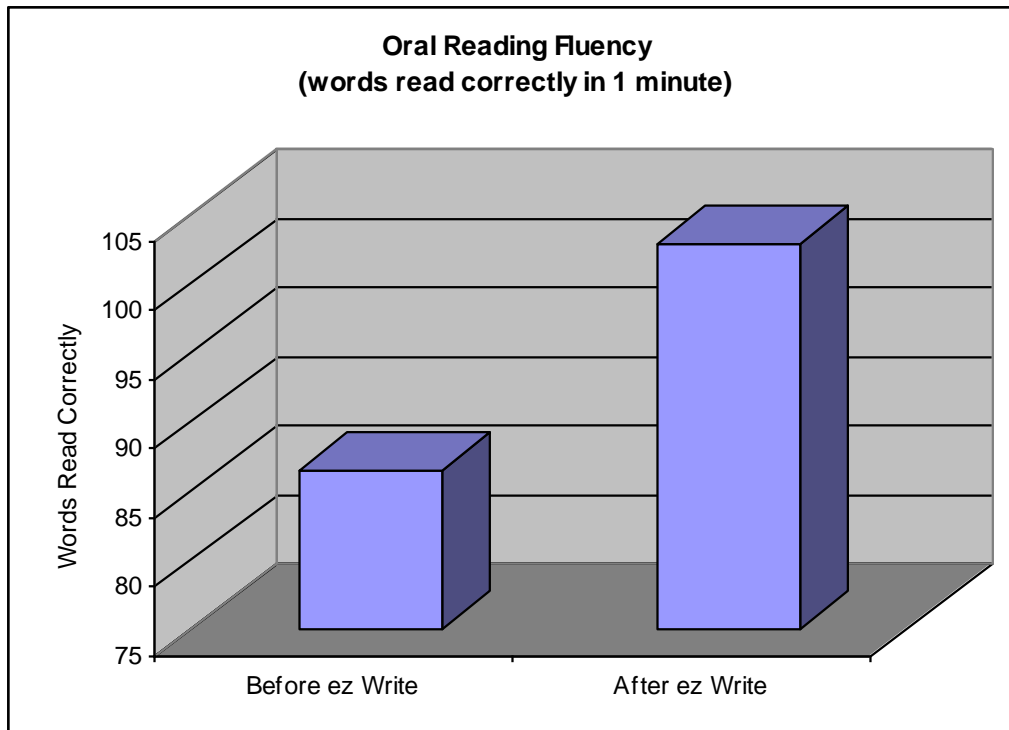
Command of Sentence	29%
Physical Attributes	60%
Organization	36%
Expression of Ideas	45%





Oral Reading Fluency

- The chart below measured the improvement in number of words read correctly in one minute, as measured by the *DIBELS* Oral Reading Fluency (2003) evaluation.



19% improvement

- After 10 weeks of ez Write, improvements in writing also translated into improvements in reading ability

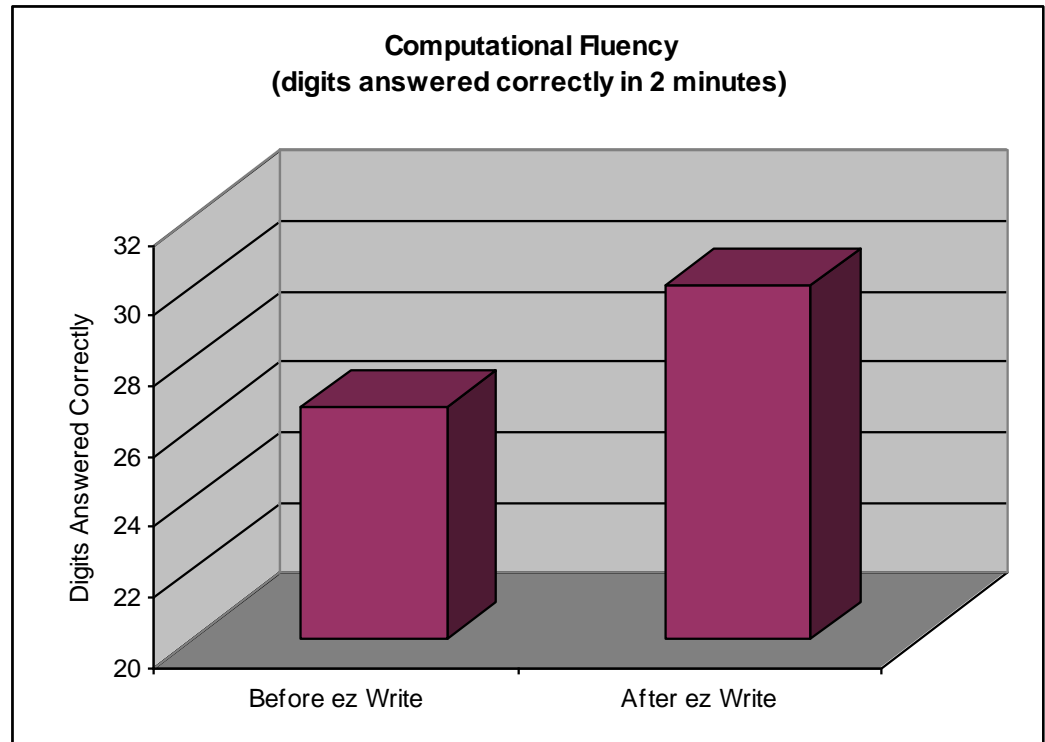


Computational Fluency

- The chart below measured the improvement in ability to quickly solve one and two-digit addition and subtraction problems using an *AIMSweb* Math Computation test.

13% improvement

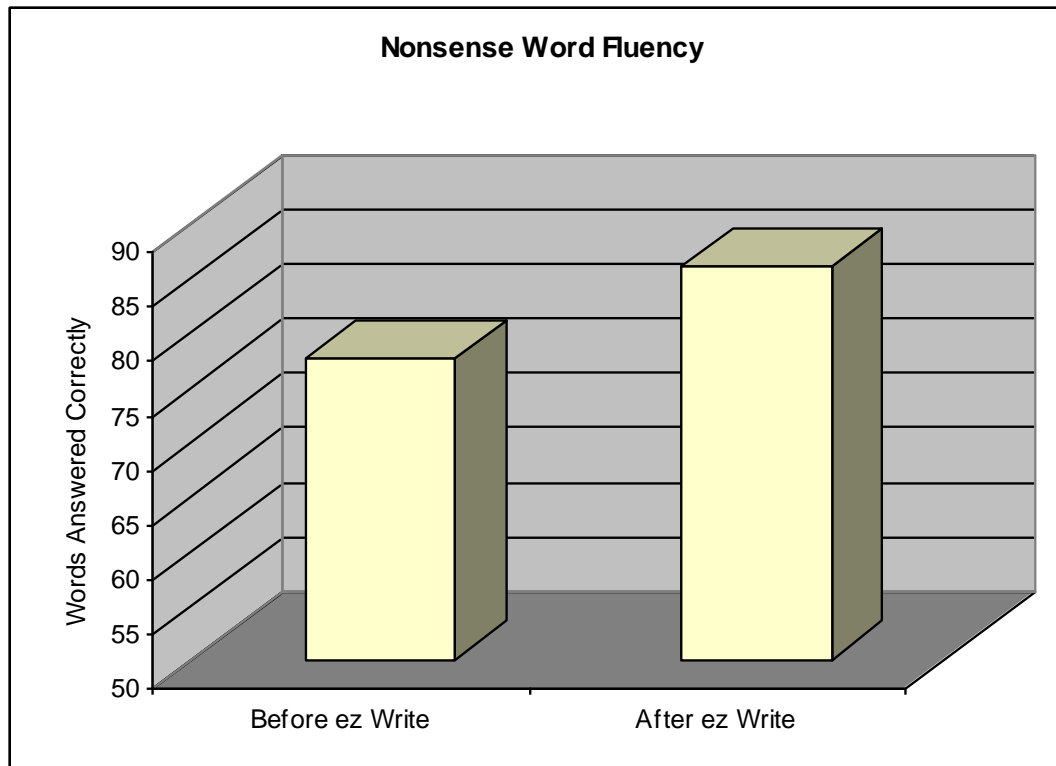
- After 10 weeks of ez Write, improvements in writing also translated into improvements in mathematical / computational ability





Nonsense Word Fluency

- The chart below measured the improvement in number of correct letter sounds in one minute, as measured by the *DIBELS* Nonsense Reading Fluency (2003) evaluation.



11% improvement



Conclusions

- This 10-week intervention with ez Write had a significant effect on students' transcriptional automaticity.
- ez Write also positively affected students' compositional abilities, as the class average increased on all of the posttest measures of text generation.
- The data also suggest that gains in transcriptional automaticity will produce gains in related processes.
 - Compositional writing
 - Reading fluency
 - Computational / mathematical fluency