



Writing Process Performance of Two Children with Autism

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Introduction

- Research has demonstrated that writing is an area of difficulty for children with an Autism Spectrum Disorder (ASD) (Asaro & Saddler, 2009; Asaro-Saddler & Saddler, 2010; Delano, 2007; Losh & Capps, 2003); specifically:
 - Difficulties organizing thoughts and transferring them to their writing, inflexible thinking and needing assistance elaborating ideas (Asaro & Saddler, 2009).
 - Difficulties with linguistic output in terms of grammar, spelling, and semantics.
- There has been a push to include children with disabilities in general education to enhance social and academic development (Chamerlain, Kassari, & Rotheram-Fuller, 2007).
- Hayes and Flower (1980) defined writing as a recursive process that includes planning, translating, and revising.

- Research suggests that translating comprises:
 - Productivity;
 - Complexity;
 - Accuracy;
 - Mechanics (Puranik, et al., 2008; Wagner, et al., 2011).
- Survey research found that writing instruction is conducted in a linear fashion, over extended periods of time (Gilbert & Graham, 2010).

- The purpose of the present investigation is to compare how two different children with ASD perform across a three day writing process protocol.



- Data for the current study are a subset of data from a larger study examining the writing process in sixth grade students. It is a sample of convenience that lent itself to be a case study of an inclusion classroom addressing the following **research question:**

How do two children with an ASD differ than their typically developing (TD) classmates on measures selected to represent the planning, writing, and revising components of the writing process?

Sample

N = 17	TD (n = 15)	HF_ASD	LF_ASD
Age in Years	11.68 (.49)	12;1	11;10
Mother's Ed.	13.14 (1.41)	17	14
Girls : Boys	9 : 6	Boy	Boy
GRADE Reading Test (Williams, 2001)			
Scores Reported in Stanines			
Sentence Comprehension	5.87 (1.96)	6.0	5.0
Vocabulary	5.80 (1.78)	9.0	3.0
Listening Comprehension	4.40 (1.96)	6.0	3.0

Procedures

- Writing samples were collected across three days, one for: 1) planning; 2) translating; and 3) revising
- 15 TD students from the same classroom were included for comparison for 2 ASD participants
- Measures for planning included: (1) the number of ideas generated; and (2) an organizational rating
- Measures for translating and revising were exactly the same thus change scores were used to represent revising ability:



Results



Discussion

- The purpose of this study was to describe how an inclusion classroom, with two students with ASD, attend to the writing process for a narrative task.
- No differences were observed on planning measures suggesting that the language deficits associated with ASD do not negatively impact planning ability.
- The HF_ASD participant performed as well if not better than TD peers on skills related to planning and translating; specifically:
 - Planning: more ideas generated and higher organization scores
 - Productivity: more words and sentences
 - Complexity: higher lexical diversity and clausal density
 - Accuracy & Mechanics: few to no errors across these measures
- The LF_ASD participant demonstrated poorer performance on most skills related to the writing processes; specifically:
 - Less productivity and complexity compared to TD peers
 - Poor accuracy in both spelling and grammar
 - No observable understanding of mechanics (punctuation & capitalization)
- For revising, two different patterns emerged by ASD participant.
 - The HF_ASD student demonstrated sophistication in revising as demonstrated by increases in productivity suggesting the addition of new information; something not observed in TD classmates.
 - The LF_ASD student demonstrated revision as editing of superficial features of handwriting with no other observable changes.

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