

E.A.E.: Echo – Answer – Example

*A Writing Strategy for Elementary School
Students with Learning Disabilities*

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Executive Summary

E.A.E: Echo-Answer-Example is a researched-based writing strategy developed with mnemonic and scaffold supports to aid students with learning disabilities in writing short answer reading responses. The results of a 6-week intervention demonstrate that fourth and fifth grade students with learning disabilities substantially improved their short answer reading response scores using the E.A.E. strategy. The study includes quantitative data gathered from pre- and post-intervention benchmark scores as well as qualitative data gathered from teacher observations and student conferences. The study concluded that E.A.E. can be an effective tool to help students with learning disabilities who struggle with paragraph development and written expression.

Introduction

“I hate writing”. In self-contained classrooms with varying disabilities and grade levels, a disdain for writing a reading response is an unfortunate commonality. When I entered my third year of teaching I realized this sentiment was not specific to my fourth and fifth students but was a troubling pattern not addressed when modifying the general education curriculum for learning disabled students.

Many of my students met frustration or challenge with refusal. After a reading they engaged in discussion about the text but often refused to write a response. When students respond to what they read they further negotiate its meaning by unraveling their thinking while elaborating and clarifying their responses (Rosenblatt, 1978). When students refuse to respond to a text they reduce the potential understanding of a text within an instructional period.

Determined to provide students with a tool to reduce the struggle and increase text understanding I turned to the action research process. When reviewing a school-wide English Language Arts assessment for fourth and fifth grade students with learning disabilities (SWLD) in self-contained classes, I found students scored lowest on the written short answer response because they did not support their answers with details from the text. Additionally, they did not clearly convey their thoughts and ideas, often forming incomplete sentences to answer the prompt.

Through classroom observations, I noticed many SWLD were more confident in math, especially when the math skill was broken into steps or a formula was provided. In a meta-analyses on teaching mathematics to students with significant cognitive disabilities, Browder, Spooner, Ahlgrim-Dezell, Harris & Wakeman (2008) found students with significant cognitive disabilities benefit from systematic mathematics instruction that includes explicit procedures, prompting and prompt fading. The idea for an intervention came from marrying these 2 observations with existing literature on the cognitive characteristics of students with learning disabilities and teaching strategies. I realized I needed to make the writing response process systematic. I needed to provide my students with a procedure to develop a clear, organized and accurately supported response that they could recall and apply independently.

Intervention Development

Task Analysis

In order to determine the necessary components of a clear and logical writing response a task analysis was performed. Jonassen, Tessmer and Hannum (1999) discuss the learning contingency task analysis. A learning contingency analysis helps instructional designers sequence learning tasks and assists them with determining instructional strategies for teaching these task. By first decomposing the writing task you identify the operations and components required to complete the task. According to the 2011 New York State Testing Program Grades 3–8 Scoring Guide, components of a 2-point short answer written response include a complete topic sentence that correctly answers the prompt with relevant details that support the answer. Sentences adhere to conventions of grammar, punctuation and spelling.

After breaking the task into its component parts the instructional sequence that best facilitates learning the task was determined (Jonassen, Tessmer and Hannum,1999). Students need to first develop a complete and coherent topic sentence that accurately responds to the writing prompt. They then need to support the answer with relevant details conveyed in complete and coherent sentences.

Learning Characteristics of Students with Learning Disabilities

Having identified the components and instructional sequence of the task it is important to examine the special learning characteristics of SWLD in developing appropriate writing interventions. In order to learn, all students must be able to attend to stimuli, encode information about that stimuli, integrate and store data in memory and to be able to retrieve data as needed. SWLD have deficits in one or more of these areas. Students often have normal long-term memory and can retain information once it is mastered but have difficulty moving it from short-term memory to long-term memory (Harwell and Jackson, 2008). SWLDs also require more time to retrieve information from memory (Manis, 1985). My students needed a strategy that would support recall and quick retrieval of the writing prompt components.

E.A.E.: Echo-Answer-Example was developed to provide students with learning disabilities in self-contained classes with a mnemonic strategy to recall and retrieve the necessary components of a 2-point written reading response as well as scaffolds to simplify the task.

Mnemonics

Mnemonic strategies are systematic strategies for strengthening long-term retention and retrieval of information. Mnemonic strategies work by creating a connection where there is no connection immediately obvious to the learner (Vockell, 2001). E.A.E.:Echo-Answer-Example provides students with a mnemonic strategy that aids SWLDs in recalling the components of a 2-point short answer reading response. Students must echo the prompt to start their topic sentence and provide an answer to complete their topic sentence. They then provide examples that support their answer. For example, students might be given a reading response prompt to the story Hansel and Gretel. "How did Gretel act at the end of the story?". Using E.A.E. a possible response might be:

At the end of the story, Gretel acted (*echoing the prompt*) brave (*correctly answering the prompt*). Gretel acted brave because when the witch was trying to get her into the oven she tricked the witch to lean close to the oven. Then, Gretel pushed the witch in the oven, locked the door and freed Hansel from the cage. (*examples from the text that support the answer*).

The acronym E.A.E. is used to provide quick retrieval of the Echo-Answer-Example mnemonic that supports student recall of elements of a 2-point short answer written reading response.

Scaffolding

Scaffolding is a teaching strategy born out of Lev Vygotsky's concept of the Zone of Proximal Development (ZPD). According to Van Der Stuyf (2002), scaffolds support a student in building on prior knowledge to learn new information. Scaffolds can simplify tasks, provide direction and define task expectations, which ultimately reduce frustration. They may include models, cues, prompts or hints.

E.A.E.: Echo-Answer-Example utilizes several scaffolding techniques that reduce student frustration when writing reading responses. Initially, the instruction of E.A.E. should be scaffolded. Echoing the prompt, answering and providing examples should be modeled and practiced by building on the prior skill. Echoing is to be mastered before introducing how to accurately answer the prompt. When echoing and answering are mastered students are taught how to provide related examples.

Scaffolded supports such as hints and prompts should be included in the lessons. When echoing the sentence students are prompted to use the question as a reference to ensure proper word usage and spelling. When providing related examples, students who struggle with transitional sentences can be hinted to start with "For example" (At the end of the story Gretel acted brave. *For example...*) or by re-stating their topic sentence and continuing with 'because'. (At the end of the story Gretel acted brave because....)

Intervention Target Group and School

Student Target Group Profile

The study focuses on 12 fourth and fifth grade students with learning disabilities from a public school in Bushwick, Brooklyn, N.Y. Six students were in a self-contained special education class with a student: teacher: paraprofessional ratio of 12:1:1 because of academic and behavioral delays. Six students were in a self-contained special education class with a student:teacher ratio of 12:1 (without paraprofessional support) because of academic delays. Six

students were fourth graders and six students were fifth graders. All of the targeted students were approaching grade level reading with Pinnell and Fountas (2007) reading levels of M or above.

School Profile

The intervention school is a public school serving grades Pre-K through 5 with an enrollment of 626 students as of December 16, 2011¹. Of the 626 students, 98% are low-income, 80% of the students are Latino and 6% are in a self-contained special education class. Average class size in a general education classroom is 26 students with reading and writing instruction taught in a 90-minute block 5 days a week.

Intervention Implementation

Benchmark Development

Students were given 45 minutes to read a text and write two short answer reading responses. One question assessed inferential comprehension and the other analyzed characters in the story. The text, “Arthur’s Bad News Day,” is a readinga-z.com book² that is a level M on the Pinnell and Fountas (2007) reading scale. Level M texts generally contain 550-760 words total, averaging 9-10 words per sentence. More complex sentences and specialized vocabulary emerge and illustrations are used to extend the text. (Pinnell & Fountas, 2007). A level M text was chosen because all students in the target group could independently read on level M. The inferential reading response prompt (Why does Arthur think having a baby sister will be terrible news?) and the character analysis reading response prompt (How do you think Arthur feels when he holds his sister at the end of the story?) were developed from the anchor standards of the Common Core State Standards Initiative.³

¹ <http://schools.nyc.gov/SchoolPortals/32/K274/AboutUs/Statistics/register.htm>

² readinga-z.com is an online literary resource center that provides professionally developed downloadable leveled books, lesson plans, worksheets, and reading assessments.

³ <http://www.corestandards.org/the-standards/english-language-arts-standards/anchor-standards/college-and-career-readiness-anchor-standards-for-reading/> - Common Core State Standards were adopted by NYS in 2011. Anchor standards include 1: Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text; 2: Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

Pre-Intervention Benchmark Results

	<i>Inferential Response Points</i>	<i>Character Analysis Response Points</i>
12:1:1 class - 4th grade (3 SWLD)	2 students - 1 point 1 students - 0 points	3 students - 0 points
12:1 class - 4th grade (3 SWLD)	1 students - 1 point 2 students - 0 points	3 students - 0 points
12:1:1 class - 5th grade (3 SWLD)	2 students - 1 point 1 students - 0 points	3 students - 0 points
12:1 class - 5th grade (3 SWLD)	2 students - 1 point 1 students - 0 points	2 students - 1 point 1 students - 0 points

Intervention Implementation

After the benchmark was administered and scored the intervention was implemented over a 6-week period. Students met with a special education classroom teacher in groups of 4 for 20 minute sessions 3 times per week. During the first week of the intervention teachers used non-reading prompts to model how to echo, answer and provide an example. Students then engaged in guided practice of each skill before moving on to the subsequent skill. For example, a teacher would model how to echo, answer and provide an example for the prompt: “What is your favorite subject in school?”. Students were then provided with a similar prompt and practiced echoing the prompt and providing an answer. Once this was mastered students provided examples that supported the echo-answer topic sentence.

During week 2 students were provided with non-reading prompts and participated in guided practice and independent practice using the E.A.E. strategy. Teachers individually conferenced with students to assess student readiness in applying the E.A.E. strategy to reading

responses. They also used conference time to individually reinforce paragraph development skills based on observed student need. Errors in paragraph indenting, run-on sentences and spelling and word usage errors were addressed. E.A.E. steps were modified for some students. For example, some students echoed, answered and provided examples as one sentence. E.A.E. was modified to E.A. (period). E. This scaffold signaled to students that the echo and answer should form the topic sentence.

Weeks 3 and 4 of the intervention focused on applying the E.A.E. skill when writing reading responses that asked the student to make text-based inferences. Students were provided with Pinnell and Fountas (2007) level M reading passages. During week 3 teachers modeled and provided guided practice opportunities with inferential reading response prompts. Students engaged in continued guided practice and independent practice during week 4. Teachers also individually conferenced with students to reinforce previously taught paragraph development scaffolds.

Weeks 5 and 6 of the intervention modeled and practiced applying the E.A.E. when writing character analysis reading responses. Pinnell and Fountas (2007) level M reading passages were provided and prompts asked about character motivations and feelings. After the 6 weeks of the intervention students were administered the post-intervention benchmark.

Results

Benchmark data and teacher observation data were used when evaluating the effectiveness of the intervention.

Post-Intervention Benchmark Results

	<i>Inferential Response Points</i>	<i>Character Analysis Response Points</i>
<i>12:1:1 class - 4th grade (3 SWLD)</i>	3 students - 2 points	2 students - 2 points 1 student - 1 point
<i>12:1 class - 4th grade (3 SWLD)</i>	3 students - 2 points	3 students - 2 points
<i>12:1:1 class - 5th grade (3 SWLD)</i>	3 students - 2 points	2 students - 2 points 1 student - 1 point
<i>12:1 class - 5th grade (3 SWLD)</i>	3 students - 2 points	2 students - 2 points 1 students - 1 point

Quantitative data was collected from pre-intervention and post-intervention benchmark scores. Post-intervention scores of the target group increased dramatically. 100% of students in all sub-classes met the goal of writing a 2-point short inferential reading response. Pre-intervention 42% of SWLDs scored 0-points, 58% of SWLDs scored 1-point and 0% scored 2-points on the short inferential reading response. Post-intervention 100% of SWLDs scored 2-points of the short inferential reading response.

75% of the students met the goal of writing a 2-point character analysis short response. Most notably, however, pre-intervention 83% of students scored 0-points and 17% of students scored 1-point. 0% of students scored 2-points. Post-intervention 0% of students scored 0-points,

25% of students scored 1-point and 75% of students scored 2-points on the character analysis short response.

Teacher Observation Data

Qualitative data was collected from teacher observations in individual conferencing sessions during weeks 2 and 4 of the intervention. During week 2 of the intervention students were observed verbally responding to teacher questioning using the E.A.E. format. This verbal response was unprompted. Teacher observations in week 4 of the intervention reported that a student group comprised of one fourth and three fifth grade students asked if they could use the E.A.E. strategy to support their writing in the content areas of social studies and science.

Conclusions

The findings from both the quantitative and qualitative data illustrate the effectiveness of E.A.E. as a reading response writing strategy for students with learning disabilities in self-contained special education classes. The findings also speak to the potential benefits of E.A.E. beyond both short answer reading responses and self-contained special education classroom.

Fourth and fifth grade students with learning disabilities in self-contained classes greatly benefited from a systematic approach to writing reading responses that provided mnemonic strategies and scaffolded supports. Post-intervention benchmark scores increased dramatically with almost all targeted students meeting the requirements for the full 2-points on short reading responses, regardless of the level of higher ordered thinking needed for the question. The strategies employed in the intervention also proved successful as students showed internalization of the skill by responding verbally to teacher questions in full sentences that were supported with answers. Student inquiry into different ways to use E.A.E. in writing further supports the intervention's success.

The success of this study has opened the door for future research on ways to effectively use the E.A.E. writing strategy in extended reading responses and writing across content areas. Similarly, future research should be conducted on the effectiveness of the E.A.E. writing strategy with general education students who do not have a disability classification but exhibit similar

characteristics of students with a learning disability. E.A.E. might prove as a successful pre-referral intervention method.

This study should not be interpreted as using E.A.E. as a “fix-all” for the struggling writers. However, E.A.E. can be an effective tool to help students with learning disabilities who struggle with paragraph development and written expression. By using E.A.E. all year long we can begin to reduce the frustration of writing and effectively shift the often tumultuous relationship students with learning disabilities have with writing.

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