THE EFFECTS OF EXPLICIT INSTRUCTION UTILIZING

TRADITIONALLY-PRINTED AND DIGITAL MENTOR TEXTS

TO TEACH EVIDENCE-BASED WRITTEN ARGUMENTS

TO FIFTH GRADE STUDENTS

by

Julie B. Wise

A dissertation submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Education

Fall 2016

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"Faith is taking the first step, even when you don't see the whole staircase."

Martin Luther King, Jr.

Every journey begins with a single step, and every step requires faith that the path will appear. I would like to thank those who encouraged me to keep climbing the staircase.

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DEDICATION

This study is dedicated to my amazing husband, Fred, who never stopped believing in me, and my two daughters, Skyler and Kaitlyn, who inspired me to never give up.

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ABSTRACT

Using a mixed methods research design, this study investigated the effects of explicit instruction scaffolded through the study of traditionally-printed and digital mentor texts on fifth-grade students' writing performance of a well-developed evidence-based argument. A single-subject multiple-baseline with multiple probes approach tracked changes in students' writing performance over time and a single case study approach provided an opportunity to examine how instruction utilizing mentor texts affected the quality of students' evidence-based arguments. The study's findings are framed in terms of the theoretical perspectives of social constructivism and multimodality. The effects of this intervention indicate that mentor texts not only contribute to the development of a better understanding of the structural elements of an evidence-based argument but also provide useful examples for students to emulate throughout the writing process.

Chapter 1

INTRODUCTION

"The aim of argument, or of discussion, should not be victory, but progress."

Joubert, 1883

Using a mixed methods research design (Creswell, 2013), this study examined the effects of explicit instruction scaffolded through the study of traditionally-printed or traditionally-printed and digital mentor texts on fifth-grade students' writing performance of a well-developed evidence-based argument. During the 2014 – 2015 school year, the researcher worked with educators in Sorrell Park School District (pseudonyms are used throughout this dissertation, including for the school district, to preserve participants' anonymity), a small public school district in a rural area in the southeastern part of Pennsylvania. The researcher met with fifth-grade teachers every three weeks to align their English Language Arts (ELA) instruction with the recommendations outlined in the Common Core State Standards Initiative (National Governor's Association [NGA] & Council of Chief State School Officers [CCSSO], 2010). The results of this curriculum audit revealed two gaps in the curriculum: argumentative writing tasks and the construction of multimodal meaning making.

It was immediately apparent that a large portion of the writing instruction focused on narrative and informational writing, with very little instructional time spent engaging students in argumentative writing tasks. While the educators in the Sorrell Park School District expressed a desire to design writing instruction that would

provide students with explicit instruction to help them develop their skills toward writing evidence-based arguments, they reported that they lacked the pedagogical knowledge required to provide effective writing instruction for evidence-based argumentation tasks. They considered this a cause for concern since the *Common Core State Standards* (CCSS) emphasize argumentative writing. For example, fifth-grade students are expected to shift from writing opinions to constructing an evidence-based argument that presents claims, reasons, and evidence (NGA & CCSSO, 2010). While some might argue that the CCSS affords educators the freedom to develop their own instructional literacy plans, the Sorrel Park teachers felt they needed explicit guidance in how to design effective literacy instruction that enhances "students' individual skills in speaking and writing argumentatively, in listening to argumentation, and reading evidence-based arguments" (van Eemeren & Grootendorst, 2004, p. 6). In order to address this perceived lack, the researcher provided Sorrel Park teachers with training in evidence-based argumentative writing instruction while this study was being designed.

Research suggests many students struggle to write an evidence-based argument because it requires higher-order thinking skills (Crowell & Kuhn, 2014; O'Hallaron, 2014). How best to develop the skills needed to write an argument remains an important question given the trends revealed by the 2012 National Assessment of Educational Progress (NAEP) report (National Center for Education Statistics, 2013). Students across grade levels struggled to produce effective written arguments and were unable to meet the demands of argumentative writing tasks on the 2011 National Assessment of Educational Progress (NAEP), with 73% of the students' argumentative essays falling below the expected proficiency level. Sorrell Park's fifth-grade writing

scores on the 2014 state standardized assessment showed only 37% of the students' essays failed to achieve proficiency, but although 63% did satisfy the proficiency requirement, none of the students were able to meet the demands of the argumentative writing task at the advanced level. These data show that students do have foundational skills at the proficiency level; however, there is clearly a need to provide them with explicit instruction that helps them to develop their advanced writing skills. Therefore, it was deemed essential that educators at Sorrell Park School District design an effective writing curriculum incorporating literacy routines that provide explicit instruction for handling the cognitive processes and social practices involved in argumentative writing tasks (Ferretti, MacArthur, Dowdy, 2000; Ferretti, Lewis, Andrews-Weckerly, 2009; Graham, McKeown, Kiuhara, & Harris, 2012; Graham & Perin, 2007b; VanDerHeide & Newell, 2013).

The curriculum audit also revealed that reading instruction was focused mainly on narrative texts from a single traditionally-printed source. This represents the second major gap in the curriculum, since the recommendations outlined by the CCSS indicate that students should be fluent across a wide range of texts and engage with the construction of multimodal meaning (Cope & Kalantzis, 2010; Kress, 2010; Leu, Kinzer, Coiro, Castek & Henry, 2013). For example, the CCSS suggests fifth-grade students should be able to read from multiple print or digital sources, analyze how visual and multimedia elements contribute to the meaning of a text, and draw information from several texts on the same topic in order to write about a subject (NGA & CCSSO, 2010). Despite the fact that each classroom was equipped with six Chromebooks, the educators at Sorrell Park continued to prioritize conventional goals of literacy through a traditional print-based environment. Additionally, scholars have

called for educators to move beyond a monomodal view of literacy in their classrooms to embrace a broader view that includes a diverse range of signs and multimodal meaning making (Jewitt, 2008; Jewitt and Kress, 2003; Kress, 2010; Unsworth, 2008). Therefore, educators received training to design a learning environment that emphasized a balanced instruction with both print and digital literacy practices while this study was being designed (Wise, 2015).

Given the results of the curriculum audit and the availability of technology at Sorrell Park School District, the research conducted for this dissertation was designed to investigate the efficacy of a writing intervention that provides explicit instruction in both evidence-based argumentation and multimodal meaning making in order to prepare students for the new academic standards and the changing landscapes of multimodal texts in the 21st century (Jewitt, 2008; Ferretti & Lewis, 2013; Karchmer-Klein & Shinas, 2012; Leu et al., 2013; Mills, 2010; Werderich, Manderino, & Godinez, 2016). The following two research questions were explored: 1) What are the differences in the way students write evidence-based arguments when instruction is scaffolded using traditionally-printed mentor texts as opposed to both traditionally-printed and digital mentor texts; and 2) How does the use of mentor texts during instruction impact students' writing performance of an evidenced-based argument?

Theoretical framework

This study was grounded in theories that describe the complex, socially situated nature of evidence-based argumentation (van Eemeren & Grootendorst, 1992, 2004; van Eemeren, Grootendorst & Henkemans, 2002). Being able to write a compelling evidence-based argument involves analyzing data, considering the strengths and weaknesses of multiple perspectives, and then presenting a standpoint

that is supported with relevant evidence (Crowell & Kuhn, 2014; Lewis & Ferretti, 2011; VanDerHeide & Newell, 2013). Writing effectively is no longer solely the preserve of professional authors and academics but is now an essential skill for many salaried positions. For example, 90% of salaried professionals cite the importance of writing in their daily tasks (National Commission on Writing, 2006). In addition, students' ability to write a well-developed argument prepares them for the critical thinking and effective communication skills required in real-world problem solving (Mercier, 2011; Mercier & Sperber, 2011; Perin, 2013).

The nature of literacy in the 21st century demands fluency across a broad range of social practices, tools, and modalities (Leu et al., 2013). Information Communication Technologies (ICT) such as the Internet, laptops, tablets, and cell phones integrate an expanded view of "text" to include digital, multiple-media, and interactive environments (Alvermann, 2002; New London Group, 2000). This richer and more complex definition of literacy requires a richer and more complex theoretical framing of literacy research (Leu, O'Byrne, Zawilinski, McVerry, & Everett-Cacopardo, 2009), so the study presented here uses a multiple theoretical perspective approach (Labbo & Reinking, 1999) that incorporates perspectives from both social constructivism (Englert, Mariage, & Dunsmore, 2006; Vygotsky, 1978) and multimodality (Kress & van Leeuwen, 2001).

<div align="center">Social Constructivism</div>

Based on a theory of learning that emphasizes the active construction of knowledge as a function "of their social interactions with others" (Tracey & Morrow, 2012, p. 127), social constructivism frames the study in two ways. First, the writing task must fall within the student's *zone of proximal development*, defined by Vygotsky

<div align="center">5</div>

(1978) as a collaborative learning environment where teachers provide scaffolds for tasks that a student cannot do independently. According to Vygotsky, the most successful learning occurs when students receive scaffolding for tasks that they could not attempt on their own. Scaffolding (Bruner, 1983) refers to a variety of instructional techniques that provide temporary support to help students move progressively toward independence. Since writing an argument is a complex cognitive task, providing students with scaffolds to manage both process and product goals can help them become more effective writers (Bereiter & Scardamalia, 1987; Beaufort, 2006; Smagorinsky, 2006).

One major challenge when teaching written argumentation is that the structural elements and rhetorical decisions made by an author are unfamiliar to many fifth-grade students (Scardamalia & Bereiter, 1986). According to van Eemeren & Grootendorst (2004), an ideal model, referred to as a *mentor text*, can serve as a useful scaffold to guide students in the identification of the structural elements required for a well-developed argument. Additionally, engaging students in "an analytic reconstruction of an argumentative text" (van Eemeren & Grootendorst, 2004, p. 95) supports the identification of the intentional decisions an author makes throughout the writing process. Actively noticing these structural elements and intentional writing decisions provides a supportive environment that enables students to develop a deeper understanding of how a well-developed argument is written (Pytash, Edmondson & Tait, 2014; Pytash & Morgan, 2014). Supporting explicit instruction and the study of mentor texts via this type of scaffolding is advocated in *Writing Next* (Graham & Perin, 2007b), a meta-analysis of 136 writing studies conducted across grades 4 – 12, which identified the study of models such as mentor texts as an important element of

effective writing instruction. Based on these arguments, the intervention described here was designed to provide explicit instruction through the study of mentor texts to help fifth-grade students develop an awareness of the structural elements in an evidence-based argument and provide exemplars, defined here as words, phrases, sentences, or paragraphs that display the semantic structure of rhetorical reasoning, for students to emulate through their own writing processes.

A second factor of critical importance for social constructivism is the mastery of cultural sign systems such as oral language, writing, and counting that students use to communicate with the world. Vygotsky (1978) refers to the use and manipulation of such systems as *semiotic mediation*. Semiotic mediation encompasses a variety of *modes,* which are culturally and socially constructed resources for representation and communication (Kress, 2003). As literacy practices ebb and flow with social, cultural, economic, and political forces, the signs of semiotic mediation also change. Recent research suggests that the literacy demands of semiotic mediation are shifting from the centuries-long dominance of traditionally-printed text to multimodal constructed texts on the screen (Kress, 2003). Therefore, this study reflects the social constructivist theory by investigating the use of traditionally-printed and digital mentor texts to scaffold writing instruction by discussing an author's intentional decisions to create meaning, as well as provide opportunities for students to make meaning from a wide variety of modes and semiotic resources.

<center>Multimodality</center>

A mode is a sign or symbol used to make meaning. Scholars have identified six modes of meaning: oral, written, visual, gestural, tactile, and spatial (Kalantzis & Cope, 2012). Modal affordances refer to the ways in which modes are represented

(Kress, 2010) and the ability to make meaning from these modes is based on social and cultural norms. Meaning emerges from multimodal ensembles (Kress, 2010), or the combination of more than one mode to communicate meaning. For example, making meaning from a stop sign is the result of a combination of multiple modes and their affordances: the word *Stop* (written mode) conveys the action the driver should take; the affordance of the red color (visual mode) conveys a meaning of danger; and the placement of the sign at the intersection of two streets and at a driver's eye level (spatial mode) conveys the time and place for the action. The resulting multimodal ensemble (i.e., the combination of modes and their affordances) sends a strong message to a driver in the United States that can be instantly interpreted as: *stop the car, look both ways, and then continue driving through the intersection when it is safe* (Karchmer-Klein & Shinas, 2012; Kress, 2003).

Multimodality is the theory of how people make meaning from available modes with the goal of conveying a coherent message. Specifically, the focus is on which modes have been included or excluded, the function of each mode, and how meaning has been distributed across modes (Jewitt, 2015). Contrary to typical literacy instruction, written language is not necessarily privileged in multimodal texts (Karchmer-Klein, Shinas, & Wise, 2015). Instead, each mode multiplies the possible meaning that can be made by "combining, interconnecting, and integrating a host of multiple modes" (Lemke, 2005, p.92). Multimodality frames this study by acknowledging that all modes have the potential to carry meaning and that modes have certain affordances, or meaning potential. Therefore, the theory of multimodality informs this work by providing a method for analyzing how different combinations of modes can contribute to meaning in an evidence-based argument.

Research investigating how students learn to write evidence-based arguments tends to emphasize traditionally-printed sources (Butler & Britt, 2011; De La Paz et al., 2014). Scholars have argued the need for greater attention to be paid to the creation of a "new model for understanding arguments, one in which the process of argumentative analysis accounts for how the forms of evidence…influence the shape and structure of the argument being developed" (Whithaus, 2012, p. 106). A number of practitioners have focused on the use of traditionally-printed mentor texts to scaffold writing instruction in K-12 classrooms (Culham, 2014; Dorfman & Cappelli, 2007, 2009, 2012; Fletcher, 2011; Gallagher, 2011; Graff & Birkenstein, 2015; Ray, 1999, 2006), yet there is little exploration of how digital mentor texts can be used to teach evidence-based writing. As noted earlier, with 73% of our students' argumentative essays falling below the proficiency level on the 2011 National Assessment of Educational Progress (NAEP), the enhanced significance of argumentation in the *Common Core State Standards*, and the increasing role of digital literacy, it is important to examine precisely how mentor texts scaffold the teaching and learning of evidence-based argumentation. If we are to better prepare our educators, we clearly need to determine how best to implement explicit instruction using traditionally-printed and digital mentor texts to teach evidence-based written arguments.

Research Questions

This study explored the following two research questions: 1) What are the differences in the way students write evidence-based arguments when instruction is scaffolded using traditionally-printed mentor texts as opposed to both traditionally-printed and digital mentor texts; and 2) How does the use of mentor texts during

instruction impact students' writing performance of an evidenced-based argument? Research has demonstrated that although students may have practice with argumentation in a variety of everyday negotiations with peers or family members, these arguments do not provide appropriate models for evidence-based arguments (Crowell & Kuhn, 2014). Likewise, research indicates novice writers' ability to compose an evidence-based argument improves when they are instructed through a systematic and purposeful reflection on what reasonableness in argumentation means by analyzing and evaluating an ideal model of argumentation discourse (De La Paz & Graham, 1997; Ferretti, Andrews-Weckerly, & Lewis, 2007; Kuhn & Crowell, 2011; O'Hallaron, 2014).

The research for this dissertation used an explanatory sequential mixed methods research design (Creswell, 2013) to investigate the impact of instruction on fifth-grade students' writing performance of evidence-based arguments (baseline, post-instruction, maintenance essays) organized around three dependent measures (essay length, argumentative structure, and writing quality). The quantitative analysis consisted of a pragma-dialectical framework (van Eemeren & Grootendorst (1992), a primary trait rubric (Ferretti et al., 2000), and the percentage of nonoverlapping data (Scruggs, Mastropieri, Cook, & Escobar, 1986). The pragma-dialectical framework of van Eemeren and Grootendorst (1992), a model that has proved effective in previous research to evaluate students' written arguments (Ferretti et al., 2007; Lewis & Ferretti, 2011), was used to evaluate the evidence-based arguments produced by students under two different instructional conditions. The primary trait rubric developed by Ferretti, MacArthur, and Dowdy (2000) was used to evaluate the writing quality of students' evidence-based argumentative essays. Finally, the percentage of

nonoverlapping data (PND) (Scruggs et al., 1986) was calculated to determine the effectiveness of the intervention by analyzing all the essays produced to identify the differences in length, structure, and quality between two conditions, namely when writing instruction was scaffolded with either traditionally-printed texts alone or both traditionally-printed and digital mentor texts (Lewis & Ferretti, 2011).

The qualitative analysis employed a single case study design (Yin, 2004), using the constant comparative method of analysis (Glaser & Strauss, 1967) to closely examine the way using mentor texts affected the writing performance of three fifth-grade students in the traditionally-printed and digital mentor text condition. Since the students in the traditionally-printed condition did not receive explicit instruction through the use of both traditionally-printed and digital mentor texts, their data was not analyzed. The purpose of the qualitative analysis was to identify the students' initial patterns in writing behavior and any changes in these behaviors during and after exposure to explicit instruction that was scaffolded by both traditionally-printed and digital mentor texts. Data from the three students in the traditionally-printed and digital condition were collected from three different sources to allow for more accurate triangulation of the findings: a) students' essays; b) transcripts of instructional sessions; and c) transcripts of retrospective semi-structured interviews.

Chapter 2

LITERATURE REVIEW

This study investigated the effects of explicit instruction scaffolded through the study of traditionally-printed or traditionally-printed and digital mentor texts on fifth-grade students' writing performance of a well-developed evidence-based argument. This chapter is devoted to a review of the relevant literature.

This literature review focuses on three areas of writing research: cognitive strategy instruction (Englert, Raphael, Anderson, Anthony, & Stevens, 1991; Graham & Harris, 1993), evidence-based argumentation (Hillocks, 2010; van Eemeren & Grootendorst, 1992, 2004), and mentor texts (e.g., exemplar traditionally-printed essays and digital videos) (Pytash, Edmondson & Tait, 2014; Werderich et al., 2016). The goal of the literature review is to draw connections between the three areas of literature and the critical nature of explicit instruction. For this study, explicit instruction is defined as a scaffolded dialogue about general and genre specific writing strategies, the background needed to use the strategies, and appropriate procedures (e.g., goal-setting, self-monitor, self-instruction, self-reinforcement) for self-regulating these strategies (Graham et al., 2012; Olinghouse, Graham, & Gillespie, 2015; Rogers & Graham, 2008).

The first section of this chapter reviews empirical evidence of explicit cognitive strategy instruction that has led to improvements in students' writing practices and the quality of their essays. The second section examines the pragma-dialectical theory of evidence-based argumentation to provide a framework for explicit

writing instruction. The third section of the review discusses explicit instructional approaches that use traditionally-printed and digital mentor texts to teach writing.

The researcher began the review process by considering relevant chapters published in several major handbooks of literacy and technology research. This provided an overview and understanding of the literature related to cognitive strategy instruction, evidence-based argumentation, and mentor texts. Next, four databases that index literature related to literacy instruction in the K-12 classroom were searched during May 2015 to locate peer-reviewed journal articles. The four databases were: Educational Resources Information Center (ERIC, EBSCOhost), Educational Full Texts (EFT, EBSCOhost), Linguistics and Language Behavior Abstracts (LLBA, ProQuest), and PsycINFO (ProQuest). The researcher conducted multiple Boolean searches and scanned abstracts to identify those studies that met the selection criteria.

The first Boolean search included abstracts with (cognitive strategy instruction OR strategy instruction) AND (cognitive apprenticeship OR writing apprenticeship) AND (self-regulated strategy instruction OR SRSD) AND (writing OR composition) AND (instruction). This search returned 1,275 results. The search was then narrowed to include (elementary education OR primary) AND (fifth grade OR fifth-grade students), resulting in 121 possible studies. This search yielded 10 relevant studies.

The second Boolean search, which included abstracts with (argumentation OR argument OR evidence-based arguments) AND (persuasive OR opinion) AND (writing OR composition) AND (instruction), returned 1,864 hits. The Boolean search was then narrowed to include (elementary education OR primary) AND (fifth grade OR fifth-grade students), resulting in 76 possible studies. This search yielded 6 relevant studies.

The third and final Boolean search included abstracts with (mentor texts OR study of models OR digital mentor texts OR exemplar essays) AND (writing OR composition) AND (instruction). This search returned 181 hits, of which 5 articles were deemed relevant for the purposes of this study.

Following the initial database search, hand-searches for additional studies investigating cognitive strategy instruction, evidence-based argumentation, and mentor texts were conducted to locate literature that was missed during the initial electronic database search. Seven articles identified from the citation lists of the initial studies were included in the review as a result. Overall, this data collection process led to the selection of 28 reports of empirical studies published in peer-reviewed journals on evidence-based argumentation.

Cognitive Strategy Instruction

Research suggests writing performed by expert writers is a complex, goal-directed activity that requires flexibility and self-regulation of strategies related to planning, text production, and revision (Bereiter & Scardamalia, 1987; Harris & Graham, 2009; Hayes, 2012; Hayes & Flower, 1980; Hayes, Flower, Schriver, Stratman, & Carey, 1987). Expert writers display a recursive writing process, which requires sensitivity to the cognitive processes used for genre knowledge, topic knowledge, and motivation, to convey a clear message. According to Harris and Graham (2016), "Expertise in writing does not develop easily, and development needs to be explicitly supported for most students across the K-12 grades and into postsecondary employment or education as appropriate," (p. 3).

One of the most effective explicit instructional approaches for supporting the development of novice writers is through cognitive strategy instruction (Graham &

Perin, 2007b). Graham (2006) suggests that the purpose of cognitive strategy instruction is to make novice writers aware of the invisible metacognitive processes used by skilled writers in three ways. First, the teacher uses a think aloud to model when, how, and why writers use a specific strategy. For instance, the teacher explains and models strategies for planning (e.g., audience, purpose, argument elements) and revising (e.g., evaluation questions tied to the argument structure). Second, writing strategies identified in the literature are modeled within the context of an authentic writing task. This allows the teacher to remind students when and where the strategy might be appropriate. Third, the teacher provides a series of scaffolds that gradually transfer the responsibility for strategy use to the students. These scaffolds help novice writers manage the complex cognitive task of writing, allowing the students to write within their zone of proximal development. As a result, novice writers are able to mimic the writing process used by skilled writers. This type of expert-novice apprenticeship makes the invisible metacognitive strategic process unique to evidenced-based argumentation visible and facilitates mirrored self-regulation by the students.

Cognitive strategy instruction has been shown to be effective over a wide range of novice writers. For example, Graham and Perin's (2007a) meta-analysis reports the quality of writing increased in effect size from .82 to 1.17 when students in fourth through twelfth grade received cognitive strategy instruction. These findings are supported by two recent meta-analyses of writing instruction: Rogers and Graham's (2008) meta-analysis of single-subject design writing interventions for first through twelfth grade students and Graham et al.'s (2012) meta-analysis of effective writing instruction for elementary students in first through sixth grade.

First, De La Paz and Graham (1997), as cited by Rogers and Graham (2008), conducted an effective writing intervention study using a single-subject design with three fifth-grade students with learning difficulties. The researchers aimed to determine the effectiveness of cognitive strategy instruction in planning on students' writing performance and behavior when writing an opinion essay. Writing instruction was based on the Self-Regulated Strategy Development (SRSD) model (Harris & Graham, 1992) that included explicit modeling of strategies, along with supports such as discussion, scaffolding, and individual feedback. As students demonstrated mastery of specific strategies, these supports were gradually reduced to facilitate self-monitoring and independent practice. The results from the post-instruction essays revealed cognitive strategy instruction had a highly effective outcome on students' writing performance as evidenced by students' ability to write essays that were longer, provided more elaborated support for their opinion, and received higher quality ratings. It is important to note that students maintained these gains six weeks after instruction.

The authors asserted that as students' planning became more reflective, they consistently demonstrated behaviors associated with skilled writers. As a result, students considered both sides of an issue before they began to generate a plan and then refined their ideas throughout the writing process. Therefore, De La Paz and Graham (1997) argue that effective writing instruction for opinion essays requires students to consider the issue from multiple perspectives before developing their standpoint and supporting reasons.

Second, Englert et al., (1991) examined the effects of Cognitive Strategy Instruction in Writing (CSIW) on 183 fourth and fifth-grade students over the course

of six months. Using a pre and posttest experimental design, the researchers evaluated students' writing performance on two essays for which they received direct instruction (i.e., explanation and compare/contrast), as well as students' ability to transfer their text structure knowledge to an unfamiliar "expert paper," (p. 342). Writing instruction used a dialogic approach to teach students about expository writing strategies and text structures. To make the writing process and strategies visible to students, instruction included four phases: 1) text analysis which deconstructed mentor texts through teacher think aloud; 2) teacher modeling of the writing process to discuss when to use the strategies and the intentional decisions involved in writing an expository essay; 3) guided writing that engaged students in the planning and writing of a class paper; and 4) independent practice when students wrote their own essay. It is important to note that the same expository text structure was used across all four phases in order to gradually release responsibility from the teacher to the students.

Writing measures were analyzed simultaneously in a multivariate analysis of covariance (MANCOVA), with repeated measures on the two types of text structures and four dependent variables (i.e., primary trait, holistic, productivity, and sensitivity to their audience). The results of the study revealed statistically significant main effect for the treatment and significant effects for all dependent variables in three areas: quality of writing performance on trained expository text structures, transfer of strategies to an unfamiliar text structure, and increased sensitivity to their audience. First, the results from the study suggest that CSIW improved students' writing performance of familiar expository text structures. Second, findings revealed that students who received CSIW were better able to transfer their use and knowledge of expository writing strategies to their own personal topics. Third, results confirm that

CSIW fostered the development of students' awareness of their audience, which improved students' ability to convey their ideas more effectively. Englert et al., (1991) claim CSIW is an effective writing instruction for students with and without learning disabilities due to the use of dialogue and self-regulation, which facilitates a recursive writing process demonstrated by skilled writers.

Summary

This section examined studies in the literature that described cognitive strategy instruction. In the light of the previous research in this area, the instructional method for this study was based on empirical evidence of cognitive strategy instruction because of its proven effectiveness in supporting students' development of the skills, strategies, and self-regulation process demonstrated by skilled writers (De La Paz & Graham, 1997; Graham & Harris, 1989; Harris & Graham, 1999).

Argumentation

Argumentation is a problem-solving process that applies a combination of social practices and cognitive strategies to construct a chain of reasons that are acceptable and relevant to reaching a joint agreement on a controversial issue (van Eemeren & Grootendorst, 2004). The purpose of argumentation is to engage in a critical dialogue about a controversial issue in order to ponder evidence, broaden perspectives, and make an informed decision (Coiro, 2015).

An argument that relies on evidence (e.g., data, facts, and examples) to support a standpoint and reasons is called an evidence-based argument. According to van Eemeren & Grootendorst (2004), the process of writing an evidence-based argument is aimed at convincing the reader of the acceptability of the standpoint by expressing a

constellation of propositions that remove the reader's doubt. One can do this by relying on a system of formal logic that provides chains of evidence to support claims that are held by both the author and the audience. From this perspective, engaging in argumentation begins with an examination of evidence rather than the creation of a thesis statement in a vacuum (Hillocks, 2010).

The pragma-dialectical theory of argumentation, developed by van Eemeren & Grootendorst (1992, 2004), considers an evidence-based argument to be comprised of a "constellation of prepositions" that function within a complex chain of reasoning, depending on each other to convey an effective message. A constellation of propositions can be expressed from either a positive standpoint (i.e., It is the case that…) or a negative standpoint (i.e., It is not the case that…) and is constructed through simple or complex argumentative structures (van Eemeren & Grootendorst, 2004). Table 1 shows a description of each element.

Table 1   Pragma-dialectical Theory of Argumentation

Term	Definition
Introduction	The introduction includes a hook, background about the issue, a summary of both sides of the issue and an explanation of why the topic needs to be considered.
Bridge sentence	A bridge sentence provides context about the controversial issue by acknowledging the relationship between two different sides of that issue.
Standpoint	The main point or position the writer is trying to get the audience to consider. The three main types of standpoint consist of fact, judgment/value, and policy.
Level One Reason	The level one reason provides direct support for the standpoint by explaining why the standpoint is valid and should be accepted.
Level Two Reason	The level two reason is defined as the evidence (i.e., data, facts, or examples) used to explain or support the accuracy of the level one reason
Level Three Reason	The third level reasons identify values shared between the author and the reader by describing how the evidence supports the standpoint.
Alternative Perspective Sentence	The alternative perspective sentence recognizes a different point of view with which the writer disagrees and can be located anywhere in the essay, for example as a bridge sentence in the introduction, a counterargument in the body, or a synthesis sentence in the conclusion.
Rebuttal	A rebuttal sentence is a potential objection, limitation, or exception to the alternative perspective and strengthens the writer's standpoint
Conclusion	The conclusion summarizes the argument by restating the standpoint, summarizing reasons to support the standpoint, and issuing a call to action.

The goal of the pragma-dialectical approach is to identify the path the author used when writing an argument by visually reconstructing each proposition, or speech act. In this way, "all aspects of argumentative discourse… can be analyzed in a systematic way" (van Eemeren & Grootendorst, 2004, p. 187) by indicating which propositions need to be taken into consideration as relevant to the resolution process. Before an evidence-based argument can be analyzed and evaluated systematically, it is necessary to determine which propositions in the written discourse play a functional role in resolving a difference of opinion. All propositions that are determined to be irrelevant to resolving the difference of opinion are considered nonfunctional and must be removed from the visual reconstruction of the argument. After the text has been deconstructed, the students engage in a critical discussion of the differences between the mentor texts, focusing on "which argumentation is put forward by each of the parties, how their discourses are organized, and how each individual argument is connected with the standpoint that it is supposed to justify or refute" (van Eemeren & Grootendorst, 2004, p. 118). In this way, students become familiar with the intentional decisions authors make as they generate a chain of reasons that support their standpoint.

Findings from writing intervention studies suggest that students benefit from opportunities to discuss an author's intentional writing decisions. For instance, O'Hallaron (2014) sought to understand how two different types of instruction shaped fifth-grade students' evidence-based arguments. The first type of instruction focused on interpreting text-based evidence, while the second type of instruction focused on interpreting an author's decision to provide elaborated reasoning. This descriptive study was a portion of a larger study that focused on the development of a literacy

approach for teachers of English language learners (ELL). The literacy approach drew on Halliday's (1994) System of Functional Linguistics theory that treats language and learning as a process that evolves from culturally shaped meaning-making resources. Using functional data analyses, O'Hallaron developed descriptions of the characteristics in students' evidence-based arguments, as well as identified factors in the classroom instruction that may have shaped students' writing decisions.

The analysis of post-instruction essays indicated when instruction was based solely on interpreting text-based evidence students produced evidence-based arguments that lacked elaboration. Although the first type of instruction shifted students' standards of evidence from personal experience to text-based evidence, students made no additional move to explain how the evidence supported their reasons. Results from the study suggest that the second type of instruction, which used a dialogic approach to interpret an author's intentional decisions, improved students' writing performance in the area of elaborated reasoning.

O'Hallaron (2014) highlighted several instructional implications for the teaching and learning of evidence-based argumentation. First, even though all students who received the second intervention were able to produce a more robust argument with elaborated reasons, the quality of the elaboration differed across the sample. Second, the quality of students' elaboration was influenced by the standpoint and evidence for which they were trying to connect. For example, if the standpoint and evidence were not directly related, students' elaborations were of lower quality. Third, the abstract nature of the writing prompt used during the second intervention, along with the genre of the text may have unintentionally hindered students' progress. As a result, O'Hallaron (2014) recommends that special care should be taken when

generating writing prompts and selecting texts as source materials that lend themselves to evidence-based arguments.

Summary

The pragma-dialectical theory of evidence-based argumentation provides a framework for explicit writing instruction. Explicit instruction on the structural components of an evidence-based argument, accompanied by exemplars for students to emulate throughout the writing process, may improve students' writing performance of evidence-based arguments. The present study builds on this analytic framework to help students identify the author's rhetorical argument with its standpoint, reasons, and evidence. It also expands the pragma-dialectical theory of argumentation by analyzing the differences in length, structure, and quality when writing instruction is scaffolded using traditionally-printed and digital mentor texts.

Mentor Texts

A mentor text is an ideal model that serves as an exemplar example of a well-developed evidence-based argument (Pytash et al., 2014; Pytash & Morgan, 2013). According to Pytash and colleagues (2014), a mentor text may provide a variety of exemplars; ranging from samples as small as a word to as large as a paragraph. Although a mentor text can be any excerpt from a picture book, movie, commercial, or tweet, for the purpose of this study mentor texts will be identified as either traditionally-printed or digital. Literacy researchers have found the study of mentor texts to be an effective instructional method for explicitly scaffolding the teaching and learning of evidence-based argumentation (Graham & Perin, 2007a; Pytash et al., 2014; Pytash & Morgan, 2013; van Eemeren & Grootendorst, 2004).

Findings from writing intervention studies suggest that explicit instruction using mentor texts improves the overall quality of students' writing. For example, Graham & Perin's (2007a) meta-analysis of effective writing instruction for adolescents, which in their study is defined as students in grades 4-12, identified an average effect size of .25 for interventions that emphasized the study of models. The study of models, defined here as mentor texts, involves social and cognitive scaffolds that are effective in improving the quality of writing by providing students "with methods that will enable them (as speakers, listeners, readers, and writers) to deal adequately with argumentative discourse in various kinds of argumentative situations" (van Eemeren & Grootendorst, 2004, p. 35).

What is a traditionally-printed mentor text?

A traditionally-printed mentor text is an example of a well-developed essay composed solely of written words (Pytash et al., 2014; Pytash & Morgan, 2013). For the purposes of this study, a traditionally-printed mentor text is a well-developed evidence-based argument composed solely of written words. Authors of traditionally-printed texts use written words to present an evidence-based argument in an attempt to convince the reader that their claims about an issue are reasonable. There are many different types of traditionally-printed evidence-based arguments that are written and published in real world situations, including editorials, white papers (e.g., policy papers), reviews (e.g., book and restaurant reviews), and political speeches (Pytash et al., 2014).

Findings from intervention studies suggest that the use of traditionally-printed mentor texts has a positive impact on students' understanding of evidence-based argumentation. For example, Pytash et al. (2014) examined how secondary students

used traditionally-printed mentor texts to guide their writing of a policy paper about economics. After defining the structure of the position paper to contain an overall thesis with claims supported by evidence and warrants, observations, focus group structured interviews, and students' planning outlines and final essays were analyzed using a constant comparative method. The results from this study suggest that students used traditionally-printed mentor texts to explore issues in economics and understand why economists write the way they do. Similarly, students reported using mentor texts to guide their writing of a white paper by providing a model of how to structure their papers. For example, students noted how statistics were used to support the author's claim and how avoiding specific language could indicate bias. Pytash et al. (2014) argued that deconstructing traditionally-printed mentor texts as a part of the writing process can thus be a valuable tool for scaffolding writing instruction. Likewise, the authors maintained that instruction that uses traditionally-printed mentor texts provides opportunities for students to grow as readers and writers.

Knudson (1989) examined the effects of three different methods of teaching argumentative writing, one of which was traditionally-printed mentor texts, with 138 fourth and sixth-grade students. The three methods were previously identified by Hillocks' (1986) meta-analysis as effective instructional strategies in teaching writing. Using an experimental design, students were equally divided by grade and assigned to one of four conditions. Students in the first condition received instruction with traditionally-printed mentor texts of written argumentation. The second condition used scales (i.e., a primary trait rubric) and questions to guide students' writing and revision. Students in the third condition received instruction with both the traditionally-printed mentor texts and the scales and questions. Using a picture as a

writing prompt, students in the control group were asked to write about what was happening in the picture but did not receive explicit instruction in argumentative writing. Using a holistic rating scale, essays were evaluated for enumerating, rhetorical, and informational features of writing.

The analysis of the post-instruction essays indicated the use of traditionally-printed mentor texts to be the most effective instructional strategy. Knudson (1989) claimed that instruction that combined traditionally-printed mentor texts with scales and questions may overwhelm students who lack background knowledge of argumentative discourse structures, resulting in poor writing performance. These findings were confirmed by a repeated measures ANOVA that showed above-average readers wrote significantly better than below-average readers across all treatments and the interaction within each treatment was significant. According to Knudson (1989), the writing quality of the students in the free writing condition improved due to the fact that the picture writing prompt served as a scaffold to support students' idea generation.

The results from these two studies suggest that the study of traditionally-printed mentor texts may scaffold writing instruction by helping students appreciate how authors use a chain of reasons to convey their position on an issue. As a result, students develop a set of strategies that guide their decision making until they internalize the goals involved with evidence-based argumentation.

<center>What is a digital mentor text?</center>

In addition to the studies on traditionally-printed mentor texts, other researchers have gathered empirical support for the study of digital mentor texts (Kalantzis & Cope, 2012; Howell, Reinking, & Kaminski, 2015; Zammit, 2015). For

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the purpose of this study, a digital mentor text is defined as a short video clip (i.e. one to four minutes) composed of multiple modes such as, "text, images, and audio to express the elements of a valid and convincing argument" (Howell et al., 2015, p. 17). The term *digital* mentor text is used instead of *multimodal* mentor text because texts that are multimodal are not inherently digital. For example, a chapter in a science textbook is considered multimodal because the author conveys meaning through written words, visual images, and spatial layout in a print-based environment (Bezemer & Kress, 2008). Scholars have argued the need to move beyond a monomodal view of literacy by incorporating opportunities for students to read and write texts that combine visual and audio content in complex ways (Jewitt, 2008; Jewitt & Kress, 2003; Kress, 2010; Unsworth, 2008).

Additionally, a digital mentor text is similar to a traditionally-printed mentor text in quality and content but conveys an evidence-based argument by combining multiple modes (i.e., visual, oral, written, and audio content) and their affordances in a digital environment. A mode is a sign or symbol that an author uses to convey meaning. A modal affordance represents ways the author can make changes to the mode to enhance meaning. According to Kress (2010), affordance refers to the potential the mode offers for shaping the construction of meaning. The concept of affordance facilitates the close reading of a digital mentor text by asking what modes and modal affordances are best for conveying a specific message. For the purposes of this study, modal affordances are defined as the author's intentional decision to change the mode in order to provide an implied meaning. Table 2 lists a description of each mode and the corresponding modal affordances.

Table 2   Description of Mode and Modal Affordance

Mode	Example	Modal Affordance
Visual	Image: still Video: moving Scene: landscapes, cityscapes *Example:* picture, cartoon	Content: real, animated Color: black/white, color Shade: light/dark Size: big/small View: down, up, scan Placement: foreground/background
Oral	Speech: Live or recorded Listening *Example:* narrative voice-over, Interview	Pitch: high/low Tempo: fast/slow Tone: sharp/soft Inflection: animated/monotone
Written	Handwritten: on page or screen Typed *Example:* Caption, Poster, Labels	Font: size/shape (cursive/print) Capitals/lower case Space between letters/words
Audio	Music: instrumental or vocal Sound effects: bells, cheers, nature Silence: pause *Example:* classical, cheers, bird chirp	Loud/soft Fast/slow Signal transition

Although van Eemeren and Grootendorst (2004) assert that, "argumentation uses language to justify or refute a standpoint, with the aim of securing agreement in views" (p. 208), many textbooks and professional journals use multiple modes beyond written words to do the same thing. Theorists of multimodality posit that evidence-based arguments are shaped using multimodal forms of evidence (Kelly & Bazerman, 2003; Kress & van Leeuwen, 2006; Lemke, 2005; Richards, 2003). As Lemke (2005)

explains, one does not need to "construct logical arguments in purely verbal form" (p. 88). In fact, each mode can contribute to the author's argument through a layering of meaning making. Lemke illustrates this concept through a detailed analysis of evidence-based arguments published in scientific journals, showing how scientists rely on the concept of modal affordances to enhance their argument through the combination of diagrams, tables, and printed words, "thus multiplying the set of possible meanings that can be made" (p. 92). This confirms that the process of crafting an evidence-based argument can be understood by examining chains of reasoning that are multimodal.

According to Whithaus (2012), analyzing evidence-based arguments that use multiple modes offers valuable insights into how the author developed his or her position through the use of multimodal evidence. For example, he used Toulmin's (2003) model of argument, which is composed of six interconnected elements: claim, evidence, warrant, backing, qualifier, and rebuttal, to analyze two articles published in professional science journals. The purpose of the study was to develop a multimodal model of analysis for the way evidence-based argumentative elements function within complex chains of reasoning. His results highlight how the two articles share similar argumentative chains, in which visual modes of evidence (i.e., charts, graphs, maps, and tables) support claims made in written form. Whithaus (2012) maintains that these discussions scaffold students' strategic thinking when making rhetorical decisions about how to structure their evidence-based arguments. He also argues that educators can use the multimodal model of analysis to discuss the intricate relationships among written, visual, and numeric forms of evidence. Literacy researchers agree that educators have a responsibility to provide explicit instruction about how multimodal

arguments develop within professional writing (Karchmer-Klein & Shinas, 2012; Shanahan, 2013; Zammitt, 2015). One way to meet this call is through the study of both traditionally-printed and digital mentor texts.

Differences between traditionally-printed and digital mentor texts

A careful review of the literature reveals at least two ways that the study of digital mentor texts differs from that of traditionally-printed mentor texts. First, a digital mentor text moves beyond the affordances of a traditionally-printed mentor text by juxtaposing images, music, and special effects in ways that are not possible in the printed form (O'Brien & Voss, 2011). To provide support for this claim, Howell et al., (2015) explored the effects of teaching eighth-grade students about evidence-based argumentation as a multimodal design process. Instruction began by defining the elements of an effective evidence-based argument, followed by the analysis of a digital mentor text as a form of argument. The results of their study confirmed how digital mentor texts could be used to enhance conventional goals of writing instruction. Deconstructing a digital mentor text allowed them to:

> identify how conventional elements of argument could be embedded in a multimodal construction that provided a more complex, but creatively rich set of decisions such as where to place a claim, what music may set the tone for their argument, and what other visuals might appropriately and effectively reach an intended audience (Howell et al., 2015, p. 16).

Although discussions helped highlight the elements of an effective argument, students had difficulty connecting the affordances of multiple modes with the traditional writing process. As a result, Howell et al. (2015) concluded that explicit

instruction is necessary to help students determine how they will transfer what they have learned through digital mentor texts to a more traditional form of writing.

Second, the rhetorical patterns found in digital mentor texts appear to become more evident due to the multiple layers of meaning conveyed across images, music, and voice-over narration (Maier, 2012). For example, Rish (2013) investigated how the study of digital mentor texts might broaden the possibilities for making meaning from multiple modes. Rish deconstructed both traditionally-printed and digital mentor texts to teach student teachers the ways that meaning making is shaped by multiple modes used to convey an evidence-based argument. The purpose of his study was to provide an opportunity for students to identify effective rhetorical moves in written essays and design decisions in digital mentor texts that they could use in their own evidence-based argument. The results indicate that the students developed a multifaceted understanding of effective evidence-based argumentation by representing meaning in first one mode and then another. The study of digital mentor texts also provided an opportunity for the students to appreciate that traditionally-printed texts do not have to be the primary or dominant mode for meaning making.

The findings from these studies highlight how the study of a digital mentor text can be an effective method for developing students' understanding of evidence-based arguments. Not only are students better able to identify the characteristics of effective multimodal arguments; they gain a keener sense of the meaning making affordances of multiple modes. As a result, students learn how to evaluate and assess the qualities of how meaning is made at the intersection between mode, text, and context. Although digital mentor texts have been shown to model effective evidence-based arguments, research suggests that becoming proficient at making meaning from multimodal texts

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requires systematic scaffolding (Mills, 2010; Karchmer-Klein & Shinas, 2012; Zammitt, 2010).

Scaffolding

A scaffold is designed to provide structured support for tasks that students may not be able to do independently. For instance, children have a natural propensity to engage in verbal argumentation, but these skills are not sufficient to develop an effective evidence-based argument (Eisenberg & Garvey, 1981; Kuhn, 1991; Stein & Miller, 1990). Therefore, the teaching and learning of evidence-based argumentation requires "both conversational supports that scaffold students' representation of alternative perspectives and the cognitive strategy supports that scaffold the planning, drafting, and revising of argumentative writing processes" (Ferretti & Lewis, 2013, p. 131).

Scaffolding for traditionally-printed texts

According to Pytash and Morgan (2014), the instructional strategy *Reading Like a Writer* (Smith, 1983) explicitly scaffolds the writing process of evidence-based argumentation in two ways. First, *Reading Like a Writer* involves the close reading of mentor texts to help students begin to identify the complexity and nuances of argumentative writing (Graham & Perin, 2007b; VanDerHeide & Newell, 2013). Through recurring practice, *Reading Like a Writer* students shift back and forth between noticing *what* the author said and *how* the author said it. Engaging students in this type of active noticing provides students with an authentic method for applying their knowledge *about* argumentation to develop a deeper understanding of *how* effective arguments are written (Pytash et al., 2014; Pytash & Morgan, 2014). As a

result, the study of mentor texts is a universal skill that students can apply across both school and workplace contexts to learn how to write at higher levels of proficiency.

Second, the purpose of teaching students how to *Read Like a Writer* is to provide explicit instruction showing how expert writers use their perspective to guide their decisions as they craft an argument (MacArthur, 2011; VanDerHeide & Newell, 2013). In this way, mentor texts provide an exemplar model of an evidence-based argument to help students become familiar with the basic argumentative elements and structure (Graham & Perin, 2007b; Pytash et al., 2014). Through the process of deconstructing a mentor text, students develop a deeper understanding of a writer's style, or the intentional decisions a writer makes to craft an evidence-based argument (van Eemeren & Grootendorst, 2004). For example, Pytash et al. (2014) found the study of mentor texts developed students' understanding of how transition words (i.e. "first", "second", "in addition to", "furthermore") are used intentionally by the author to help the reader notice key points and indicate counterarguments ("in contrast", "although") or conclusions ("thus", "consequently"). In other words, *Reading Like a Writer* scaffolds writing instruction by facilitating the development of the dialogic and strategic knowledge required when crafting an evidence-based argument (Smith, 1983).

To facilitate the process of *Reading Like a Writer*, this study adopted a modified version comprised of five explicit writing strategies to scaffold students' awareness of the author's rhetorical moves: 1) *Target the Author's Perspective* on a controversial issue; 2) *Examine the Evidence* by identifying the elements in an argument; 3) *Read Like a Writer* by using two traditionally-printed mentor texts to support their writing decisions; 4) *Extend the Conversation* by writing paragraphs that

include reasons, evidence, and a tie-in sentence; and 5) *Negotiate a Solution* by noting alternative perspectives and offering alternative solutions. Table 3 provides a description of each strategy.

Table 3   Description of the Five Explicit Writing Strategies for Reading Like a Writer

Strategy	Description
Target the Author's Perspective	Identify the topic, author's standpoint, and purpose for the argument.
Examine the Evidence	Identify how the author uses the five elements of an evidence-based argument.
Read Like a Writer	Skim through the text to notice the author's style and identify parts of the mentor text that could help generate or organize ideas.
Extend the Conversation	Identify how the author intentionally states the values a reader may have by presenting evidence that offers positive or negative information to support that standpoint.
Negotiate a Solution	Identify how the author uses a counterargument in every reason paragraph to acknowledge the opposite standpoint and then provides evidence to show how that standpoint is valid.

While *Reading Like a Writer* explicitly scaffolds writing instruction, asking students to make the jump from digital mentor texts to writing requires what Beach

(2015) calls transfer. Transfer requires additional scaffolding tools such as think

alouds, graphic organizers, and paraphrase templates to support the process of

expressing meaning by shifting back and forth between different modes of meaning

(Kalantzis & Cope, 2012). For example, think alouds make the invisible cognitive

process used by skilled digital writers visible in a systematic way, while graphic

organizers provide a visual representation that highlights the series of steps involved

in *Reading Like a Writer*. Furthermore, the paraphrase templates facilitate

independence as students become familiar with argumentative discourse that is

composed of multiple modes.

<center>Scaffolding for digital mentor texts</center>

Multimodal analysis involves the deconstruction of a digital mentor text in

order to consider the affordances and limitations of different combinations of modes

for conveying an evidence-based argument. Digital mentor texts, with their wide range

of modes, engage students in a multimodal analysis that provides an opportunity to: 1)

identify the rhetorical decisions made by the author, 2) examine the meaning potential

of each mode; 3) discuss the purpose for which the modes were chosen; and 4) analyze

their semiotic relationships with one another (Jewitt, 2015). The starting point is not

focused on the author's language but rather on which modes have been included or

excluded, the meaning potential of each mode, and how the combination of modes

enhances the author's argument. Throughout the multimodal analysis, students are

identifying multiple modes, their purpose in communicating meaning, and their impact

on the audience (Bezemer & Kress, 2008; Kress & van Leeuwin, 1996; 2006). To

facilitate the process of deconstructing digital mentor texts, Werderich, Manderino,

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and Godinez (2016), prescribe a five-step framework that can be applied to any digital mentor text, website, or online resource (Table 4).

Table 4   Description of the Five-Step Framework for Reading Like a Digital Writer

Five-Step Framework	Scaffolding Question
1. Noticing modalities	What modes did the author select?
2. Talking about affordances and limitations	Why did the author use those modes?
3. Naming modalities	How did the author layer the modes?
4. Considering other digital texts	Have you seen other digital texts that do this?
5. Envisioning the integration of multimodality	How would you use this mode(s) in your writing?

This study took students through the first three steps of *Reading Like a Digital Writer,* which moves students from a narrow monomodal focus of evidence-based argumentation to a broader perspective by considering the author's intention to enhance his or her standpoint and evoke emotion in the audience through multimodal meaning making. The first step, *noticing modalities*, engages students' viewing of the digital mentor text to facilitate active noticing of one mode at a time. Students are asked to identify which modes the author has selected to help them compare and contrast the meaning each mode contributes to the argument. Here, the whole digital mentor text is viewed to provide an overall sense of the argument and allow students to notice modal use across the whole argument.

The second step, *talking about affordances and limitations*, involves asking students to discuss the author's intentional decision to layer modes to enhance his or her standpoint. Within this step, students discuss the affordances and limitations of each mode by analyzing the effect on meaning. This step explains how the interaction between modes is important to understand the construction of meaning. That is, people make meaning through their deliberate selection and assemblage of modes. The term *assemblage* refers to the gathering of pre-fabricated materials (Waldman, 1992). When making meaning, signs that were previously created can be re-mixed and remediated. Kress (2010) argues that modes are constantly transformed through this re-mixing and remediation process. This means that to fully grasp the evidence-based argument in a digital mentor text, interactions between modes need to be analyzed (Norris, 2013). As a result, this step expands students' awareness of individual modes to include noticing the author's design choices across multiple modes of meaning.

Third, *naming modalities* highlights points in the argument where the author intentionally manipulates the mode to enhance the impact of the image, narration, printed word, or sound. This third step involves a deeper analysis across modes, moving students from analyzing individual modes to investigating the relationships that are created between modes. This can be accomplished through the discussion of multimodal coherence (van Leeuwen, 2005). According to Jewitt (2015) the multimodal coherence, or relationship between modes, can be characterized as aligned (where multiple modes supply the same meaning), complementary (where multiple modes provide different examples but extend the meaning), or contradictory (where multiple modes supply opposite meanings). The first three steps of the *Read Like a Digital Writer* framework engage students in a close reading of a digital mentor text to

determine how the author makes effective use of integrating various modalities to communicate meaning.

Discussion

Although students may practice argumentation in a variety of everyday negotiations with peers or family members, these arguments do not provide appropriate models for evidence-based arguments. Research indicates that novice writers' ability to construct an evidence-based argument improves when they are instructed through a systematic and purposeful reflection on what reasonableness in argumentation means by analyzing and evaluating an ideal model of argumentation discourse (Howell et al., 2015; van Eemeren & Grootendorst, 2004). Furthermore, research in the area of cognitive strategy instruction suggests novice writers need explicit instruction to understand the skills, strategies, and self-regulation thought processes used by expert writers as they compose an evidence-based argument (Englert et al., 1991; Graham & Harris, 1993). These include the importance of analyzing the written task, considering the structure of an argument, and using graphic organizers to plan and revise their essays.

One effective instructional approach to help students develop a deeper understanding of reasonableness in evidence-based argumentation is through the study of mentor texts. The study of mentor texts scaffolds writing instruction by providing a high-quality model that can be used to analyze and evaluate a system of formal logic that provides chains of reasonable thought. Deconstructing mentor texts also facilitates strategic knowledge by revealing "how the arguments are constructed, how they work, [and] how they succeed or fail using oral or written or other text" (VanDerHeide & Newell, 2013, p. 325). At the same time, digital mentor texts provide an opportunity

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for students to develop a multifaceted understanding of evidence-based argumentation. Research has clearly shown that reading and writing are best taught together (Duke et al., 2011; Tierney & Shanahan, 1991; Graham & Perin, 2007b). Instruction scaffolds the reading of a mentor text by giving students reasons to return to the text many times for a variety of purposes. In this study, students were taught how to evaluate the effectiveness of an evidence-based argument by analyzing the author's intentional decisions regarding the organizational structure and rhetorical vocabulary. This instruction was also designed to combine reading and writing tasks to help students sustain the effort required to read and analyze a mentor text, establish a standpoint based on evidence, and then construct an effective handwritten argument.

Even though students may have experience reading written essays and viewing videos for entertainment purposes, they lack the knowledge of how to engage in active noticing to support their writing. The literature suggests that the study of mentor texts is an effective instructional approach to help students develop a deeper understanding of the structures and practices involved in evidence-based argumentation (VanDerHeide & Newell, 2013). The rationale for using mentor texts in this study was to enhance students' understanding of evidence-based argumentation through the principles of the *zone of proximal development* (Vygotsky, 1987). Additionally, a close reading of a mentor text has been shown to facilitate active noticing as students read with a purpose to learn how to frame and defend an effective evidence-based argument (Pytash & Morgan, 2014). When students examine mentor texts and attempt to emulate the structural patterns in their writing, the quality of their writing clearly improves (Graham & Perin, 2007a; Hillocks, 1986; Pytash et al., 2014).

While analyzing elements and rhetorical moves in traditionally-printed mentor texts has been shown to be effective, research suggests that the rhetorical patterns found in digital mentor texts are more evident due to the multiple layers of meaning conveyed across images, music, and voice-over narration (Maier, 2012). This study made the assumption that the study of digital mentor texts was likely to spark students' desire to watch, rather than read, an evidence-based argument (Baratta & Jones, 2009). The findings reported in the literature have demonstrated that the study of digital mentor texts makes the elements of an evidence-based argument more visible to students so they are better able to construct an argument on their own (Green, Walters, Walters, & Wang, 2015; Howell et al., 2015; Skinner, 2007; Sorapure, Takayoshi, Zoetewey, Staggers, & Yancey, 2006; Zammit, 2015).

Unfortunately, the literature on how digital mentor texts scaffold writing instruction of evidence-based argumentation is limited. At the same time, there is a lack of research addressing explicit writing instruction of evidence-based argumentation at the elementary level (VanderHeide & Newell, 2013). Finally, little is known about how the use of digital mentor texts can impact the learning environment of literacy instruction (Ayres, 2015). Given the evidence of students' poor writing performance revealed by NAEP 2012 (National Center for Education Statistics, 2013), the significance placed on argumentation in the *Common Core State Standards*, and the fact that academic success can be predicted by students' ability to write a strong argument (Preiss, Castillo, Grigorenko & Manzi, 2013), an investigation of the ways traditionally-printed and digital mentor texts scaffold the teaching and learning of evidence-based argumentation is clearly overdue.

Summary

  This chapter has focused on the study of mentor texts and explicit instruction of the cognitive processes specific to deconstructing traditionally-printed and digital mentor texts. The current study builds on the first three components of the analytic framework of *Reading Like a Digital Writer* (Werderich et al., 2016), and the multimodal approach of analyzing texts (Bezemer & Kress, 2008; Kress & van Leeuwin, 2006) to help students develop an awareness of modes and the author's intentional decisions to create layers of meaning through the use of multimodal ensembles. This study expands the study of mentor texts by taking into account both traditional-print and digital multimodal forms of argumentation and extends the definition of literacy skills to include constructing meaning from a range of multimodal resources and multimodal designs.

Chapter 3

METHODS

The purpose of this study was to investigate the effects of explicit instruction scaffolded through the study of traditionally-printed or traditionally-printed and digital mentor texts on fifth-grade students' writing performance of a well-developed evidence-based argument. The decision to prioritize argumentative writing over other genres in this study was informed by two factors. First, the Pennsylvania Core Standards (Pennsylvania Department of Education, 2014) adopted by Sorrell Park School District have expanded opinion writing to include text-based argumentation. Unfortunately, as described earlier, the educators from Sorrell Park reported that they lacked the knowledge required to provide effective writing instruction for evidence-based argumentation tasks. Second, Sorrell Park's fifth-grade writing scores on the 2014 Pennsylvania State Standardized Assessment (PSSA) indicated that 37% of the students' essays were below the proficiency level and although 63% did achieve proficiency, none of the students were able to meet the demands of the argumentative writing task at the advanced level. This study was designed to conduct a systematic analysis of how the use of traditionally-printed or traditionally-printed and digital mentor texts could scaffold writing instruction to support educators' pedagogical knowledge when teaching students how to structure argumentative essays, discuss an author's intentional decisions, and independently compose an evidence-based argument. The following research questions guided this work:

1. What are the differences in the way students write evidence-based arguments when instruction is scaffolded using traditionally-printed mentor texts as opposed to both traditionally-printed and digital mentor texts?

2. How does the use of mentor texts during instruction impact students' writing performance of an evidenced-based argument?

Experimental Design

This study employed an explanatory sequential mixed methods research design (Creswell, 2013), which included an initial quantitative coding of argumentative structures using the pragma-dialectical framework followed by a qualitative analysis of exemplar baseline, post-instruction, and maintenance essays to explain the initial quantitative results and develop a deeper understanding of the changes in fifth-grade students' writing performance. The rationale for using a mixed methods design is that the combined use of quantitative data (i.e., the percentage of nonoverlapping data) with qualitative data (in this case, student essays, transcripts of instructional sessions and retrospective semi-structured interviews) provides a better understanding of the research questions than can be achieved by looking at either form of data alone (Creswell, 2013). For instance, a single-subject multiple-baseline with multiple probes design (Kennedy, 2005; Lewis & Ferretti, 2011) uses a repeated-measures component to establish control and trace writing performance changes over time, while a single case study design (Yin, 2004) that utilizes the constant comparative method for qualitative data analysis (Glaser & Strauss, 1967) of exemplar essays makes it possible to discern any changes that occur.

The goal of a single-subject multiple-baseline with multiple probes design is to establish an initial level of writing performance before instruction, which can then be used to measure performance after instruction has been delivered. One of the benefits

of a single-subject multiple-baseline design is that establishing tight control of the intervention is relatively straightforward. For example, the use of multiple probes makes it possible to establish a set of baseline data that can then be used to predict whether the quality of students' writing will continue to fall within this range without additional intervention. This design also provides tight control of the intervention by using low numbers of students and individual instruction. As a result, students' performance changes can be confidently attributed to the instructional intervention. Furthermore, if performance changes are replicated across participants, a causal relationship between students' performance and instruction can be established (Lewis & Ferretti, 2011; MacArthur & Lembo, 2009), thus supporting the experimental logic that each student serves as his or her own control by introducing the intervention to students systematically and sequentially. This design has been used successfully in writing research involving multiple age groups of student populations (De La Paz & Graham, 1997; Graham & Harris, 1989; Harris & Graham, 1999) to determine the effects of specific instructional interventions on student performance.

Prior to instruction, handwritten essays for each student in the study were measured in terms of their length, argumentative structure, and quality over time to establish a stable baseline level of performance for the participants (Horner et al., 2005). To avoid the need for lengthy baselines, the six participating students were divided into two conditions. For each condition, writing instruction was systematically and sequentially introduced to one participant at a time. By maintaining individual baselines, the results from both conditions could be compared (Lienemann, Graham, Leader-Janssen, & Reid, 2006). Thus, three baseline probes for the first student in each condition were initiated at the same time, with instruction beginning after a stable

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baseline was established. An additional target baseline probe was given to each successive student, with the second student in each condition receiving four baseline probes, and the third five baseline probes. Instruction was not initiated with the subsequent students in each condition until the previous student had finished the post-instruction probes. Three post-instruction probes were administered immediately after instruction and maintenance probes were given three weeks after instruction ended. Table 5 shows the sequence of baseline, instruction, post-instruction, and maintenance probes for each pair of students.

Table 5   Sequence of Baseline, Instruction, Post-Instruction, and Maintenance
             Probes

Student	Sequence
T1	B B B I I I I I I P P P M M
T2	B B B B I I I I I I P P P M M
T3	B B B B B I I I I I I P P P M M
TD1	B B B I I I I I I I P P P M M
TD2	B B B B I I I I I I I P P P M M
TD3	B B B B B I I I I I I I P P P M M

Note: The table displays the sequential order of probe administration. The boxes do not accurately represent the
    timeline; maintenance probes were given three weeks after the last instructional day.
    B = Baseline probe, I = Instruction, P = Post-instruction probe, M = Maintenance probe

The goal of a single case study design (Yin, 2004) is to gain an in-depth understanding of how the use of mentor texts during instruction affects each student's writing performance for evidenced-based arguments. A single case study design

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involves the collection, analysis, and integration of multiple sources of data to trace the impact of instruction and "assess the reality of the predicted behavioral changes" (Yin, 2004, p. 14). This study was designed to first collect and then analyze multiple sources of evidence to triangulate how and why individual students used the mentor texts to support their writing processes. Specific to this study, three different types of data were collected in order to provide sufficient evidence and draw conclusions that address the second research question. For example, identifying times when the student displayed the same set of thoughts or behaviors across the instructional transcripts, the post-instruction retrospective interview transcripts, and the maintenance essays makes the findings robust and gives more confidence in the conclusions than would be possible by relying on a single source alone (i.e., a qualitative content analysis of students' essays).

The qualitative analysis employed a single case study design (Yin, 2004), using the constant comparative method of analysis (Glaser & Strauss, 1967) to closely examine how explicit instruction affected the way the three fifth-grade students in the traditionally-printed and digital mentor text condition used the mentor texts to support their writing process and create a well-developed evidence-based argument. Since the students in the traditionally-printed condition did not receive explicit instruction in the use of both traditionally-printed and digital mentor texts, their data was not analyzed. The purpose of the qualitative analysis was to identify initial patterns in the students' writing behavior and possible changes in these behaviors during and after exposure to explicit instruction that was scaffolded by traditionally-printed and digital mentor texts. Data from the three students in the traditionally-printed and digital condition were collected from three different sources to allow for the triangulation of findings:

a) students' essays; b) transcripts of instructional sessions; and c) transcripts of retrospective semi-structured interviews.

Qualitative data analysis was conducted utilizing a multi-step process to address the second research question. For this critical process of qualitative data analysis, the researcher conducted a recursive process of analysis to closely examine the data (i.e. six student essays, nineteen transcripts of instructional sessions, and three transcripts of students' retrospective semi-structured interviews). In order to identify specific patterns in the writing behavior, data analyses of exemplar essays were conducted using *a priori* codes that were determined from the highest quality score (on a seven point scale) of the primary trait rubric (Ferretti et al., 2000). The data analysis of the transcripts from the instructional sessions used open coding (Glaser & Strauss, 1967) by reading each transcript individually to record salient quotes and note preliminary codes. The codes were then revised to reflect a more thorough analysis of the data. Constant comparative methods (Glaser & Strauss, 1967) were then used across all the codes to collapse the preliminary codes into categories and identify emerging themes. This process required three passes through the data to ensure the findings were representative of the writing behaviors of the three fifth-grade students in the traditionally-printed and digital condition.

Pilot Study

Prior researchers (Howell et al., 2015; Pytash et al., 2014; Pytash & Morgan, 2013) have found that traditionally-printed and digital mentor texts are likely to have a positive influence on both the argumentative structure and quality of students' written essays. The researcher therefore conducted a pilot study to confirm that the proposed methods and materials were appropriate, clear, and effective.

The pilot study was conducted during the fall of 2015. After receiving approval from the university's Institutional Review Board (IRB), three fifth-grade female students, who lived in a different school district than those in the main study, were invited to participate. The students' parents reported their daughters loved to read and write and achieved above average grades in English Language Arts. This was important because the participants in the pilot study were the same grade level as the participants in the main study and were thus expected to learn the same writing skills.

The researcher met with each student individually for four sessions of approximately 45 minutes each over a period of two weeks. During each session, the researcher provided opportunities to deconstruct three mentor texts and apply a new writing strategy while composing an evidence-based argument. Using the gradual release of responsibility model (Pearson & Gallagher, 1983), the researcher introduced one *Reading Like a Writer* strategy per session (i.e., *Target the Author's Perspective*, *Examine the Evidence*, *Reading Like a Writer*, *Extend the Conversation, and Negotiate a Solution*) that students could apply when composing their own evidence-based argument.

The instructional protocol for the pilot study was based on empirical evidence of cognitive strategy instruction in writing that teaches students the same thought processes used by skilled writers (Englert et al., 1991; Graham & Harris, 1993). This approach strongly emphasizes the importance of analyzing the written task, considering the structure of an argument, and using graphic organizers to plan and revise essays. Drawing on the research of Howell et al., (2015), instruction began in each session with the researcher using one digital mentor text and two traditionally-printed mentor texts to show examples of how skilled writers use the four writing

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strategies in their arguments. The researcher modeled how to deconstruct the digital mentor text by identifying the elements of an argument (i.e., introduction, standpoint, reasons, alternative perspective, and conclusion) and the author's intentional decisions to use certain modes, along with their modal affordances, to convey a compelling argument. Repeating the same process, the researcher and student worked together to deconstruct one traditionally-printed mentor text. Finally, the researcher invited the student to deconstruct the second traditionally-printed mentor text independently by identifying the argumentative elements and intentional decisions made by skilled writers. The decision to deconstruct the traditionally-printed mentor texts, after deconstructing the digital mentor text, was made because the students would then be asked to write a traditionally-printed essay. Thus, it was important to ensure students could independently deconstruct an essay similar to the format in which they were expected to write (Rish, 2012). This type of expert-novice apprenticeship provides a space for students to work toward independence so they can "emulate the critical elements, patterns, and forms embodied in the models in their own writing" (Graham & Perin, 2007b, p. 20).

After deconstructing the three mentor texts, a different *Reading Like a Writer* strategy (i.e., *Target the Author's Perspective*, *Examine the Evidence*, *Reading Like a Writer*, *Extend the Conversation, and Negotiate a Solution*) was explicitly taught during each instructional session. Since the writing processes of planning, generating, and reviewing (Hayes & Flower, 1980) are all invisible cognitive activities, the researcher modeled the writing strategy by thinking aloud about the intentional decisions an expert writer might use while writing an evidence-based argument. In this way, students began to identify the complexity and nuances of argumentative writing

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(Graham & Perin, 2007b; VanDerHeide & Newell, 2013). Through recurring practice in deconstructing mentor texts and engaging in the writing process, students shifted back and forth between noticing the intentional decisions made by the author and noticing their own intentional decisions. Engaging students in this type of active noticing provided students with an authentic method for applying their knowledge *about* argumentation to develop a deeper understanding of *how* effective arguments are written (Pytash et al., 2014; Pytash & Morgan, 2014). At the end of each session, the participants in the pilot study were asked to offer feedback about the appropriateness of the mentor texts, clarity of the instructional protocol, and the effectiveness of the materials.

The final step in the pilot study consisted of a retrospective semi-structured interview (Afflerbach & Cho, 2009), in the form of a focus group, conducted after the three participants had completed all four instructional sessions. The purpose of the focus group was two-fold. First, the retrospective semi-structured interview questions to be used in the main study were piloted. Second, participants were asked to reflect and provide feedback on their experiences with the traditionally-printed and digital mentor texts, the clarity of language in the instructional protocol, and the effectiveness of the materials used during each session.

Based upon the insights gleaned during the pilot study, several revisions were made. First, the pilot study students struggled to remember the definitions of argumentation terms and learning goals for each session so a strategy sheet, also known as an anchor chart (Miller, 2002), was created to make the writing process visible by defining abstract concepts, step-by-step processes, and sentence frames. The purpose of this revision was to create a self-monitoring tool that students could refer to

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throughout each instructional session. The strategy sheet detailed the writing strategy by listing the actionable steps, or intentional decisions, a writer uses when generating an evidence-based argument. For example, during the first instructional session, *Targeting the Author's Perspective* was introduced with a strategy sheet that included a graphic organizer in the form of a target to scaffold the three questions a writer asks about the author's perspective when reading an evidence-based argument. The student worked from the outside ring in the target (Topic: What is the author talking about?), to the middle ring (Stance: What does the author believe), and ended with the bullseye (Purpose: Why is the author talking about it?). In this way, the abstract thinking process could be represented in a concrete visual manner. Appendices C and D present the scripted lesson plans and strategy sheets used during each instructional session.

These strategy sheets grew and developed with every consecutive instructional session to help students remember their prior learning and enable them to make connections to the new writing strategy that was being introduced. For example, the information for *Targeting the Author's Perspective* remained but was decreased in size to make room for the new strategy being introduced in session two: *Examining the Evidence*. This strategy included a five-step process for deconstructing the writing prompt and defined four elements of an evidenced-based argument, namely introduction, standpoint, evidence, and conclusion. The conversations that occurred while deconstructing the three mentor texts revealed a clearer, more detailed definition of the elements in a written argument. For example, deconstructing the reason paragraphs helped define evidence as a quote, example, or fact. This definition was important to help students determine whether a sentence they had written in the reason

paragraph would serve as an elaboration to support their reason, or if the sentence was actually inaccurate information.

Second, students struggled to make the connection between the set of writing strategies taught during instruction and their own writing process. As a result, the sequence of the instructional protocol was adjusted. For example, the strategy sheet (Miller, 2002) was moved from the writing section of the session to the beginning of the session to visually highlight the systematic way the strategies occur within the mentor texts. Students began referring to the strategy sheet throughout the lesson as a gentle reminder of the abstract concepts, step-by-step processes, and sentence frames. This meant the strategy sheet served as a self-monitoring tool as students determined how to modify their writing process. In this way, the strategy sheet helped students develop an internal dialogue as instruction moved from direct teacher instruction to student independence.

Furthermore, specific questions that were originally placed at the end of the session to check for mastery were integrated throughout the session to guide the students' think aloud as they practiced the new writing strategy. For instance, *Read Like a Writer* was introduced during the third instructional session. Using a think aloud, the researcher modeled the three-step process for how to conduct a close reading of a mentor text to generate ideas by noticing the author's style, organization, and word choice. Since the third session focused specifically on improving the quality of the introduction and conclusion, the researcher deconstructed those two paragraphs in the digital and traditionally-printed mentor text by annotating the author's intentional decisions for each sentence. As students independently deconstructed the second traditionally-printed mentor text, the researcher asked questions like: 1) What

did you notice about this introduction?; 2) How did each sentence reveal the author's standpoint?; 3) What words or phrases did the author use that you could use in your conclusion? In this way, the questions provided guidance and support for students as they identified *what* the author said and *how* the author said it. These same questions were asked again during the writing portion of the session to help students determine whether the new writing strategy, *Read Like a Writer*, was working and adjust their own writing process accordingly.

Third, the feedback provided by the pilot study students highlighted the need to implement a systematic method that cultivated a critical discussion about multimodal meaning making by defining terms in a language they could understand. For example, the definition of a *mode* was changed from "signs or symbols used to make meaning," to "the symbols the author uses to write an argument," and *modal affordance* was changed from "adjustments to the mode to convey the best meaning," to "changes in the mode to make the argument more effective." As a result, students were better able to identify the meaning making affordances of multiple modes when explaining the author's intentional decisions.

Although digital mentor texts have been shown to model effective evidence-based arguments, research suggests that becoming proficient at making meaning from multimodal texts requires explicit instruction (Mills, 2010; Karchmer-Klein & Shinas, 2012; Zammitt, 2010). One example of this is that in this pilot study, identifying both the elements of an argument and the ways the author used modes (i.e., visual, oral, written, and audio) and their modal affordances to convey a message was overwhelming to students. Therefore, instead of deconstructing the digital mentor text for its argumentative elements and multimodal effects at the same time, the

instructional protocol was scaffolded to discuss each concept individually. For example, during the third instructional session, the digital mentor text on *Milk: Does it Really Do a Body Good* was deconstructed three different times: 1) intentionally watching the whole digital mentor text in order to *Target the Author's Perspective*; 2) using a static paper representation of the digital mentor text to identify how the author conveyed the elements of an argument; and 3) watching the whole digital mentor text to identify how the modes worked together to convey an effective argument. Thus, effective stopping points for discussion and deconstruction of the author's intentional decisions for each digital mentor text were established.

In some cases, the arrangement of the static paper representation of the digital mentor text was also changed based on the feedback received. Originally, a screenshot was taken for every new visual slide and matched with oral, written, and audio content. Then, the digital mentor text was segmented into argumentative elements by aligning all the modes simultaneously (Figure 1).

Deconstruction of Plastic Micro-beads: Beautiful or Barbaric
https://www.youtube.com/watch?v=uAiIGd_JqZc
By The Story of Stuff (2:11 length)

Introduction

Mode						
Visual	THE STORY OF STUFF PROJECT					
Oral	These are micro-beads. They are little pieces of plastic, smaller than a grain of sand. And they are everywhere. You might be swishing them around in your mouth, or rubbing them in your face.					
Written	The Story of Stuff Project					
Audio	Door shutting, cheers	Water sound			Chewing sound	Scratchy sound

Figure 1   Static representation of digital mentor text for pilot study.

Unfortunately, the students participating in the pilot study found that this arrangement presented too much information and required them to analyze the visual, oral, written, and audio content in a linear process from left to right (i.e., horizontally) and top to bottom (i.e., vertically). They were unsure why the visual, written, and audio content was segmented and sometimes left blank, while the oral content was not segmented. Despite attempts to model the process of horizontally analyzing the author's intentional decisions to make meaning from individual modes and then vertically analyzing the author's intentional decisions to layer multiple modes, the students never gained fluency in multimodal meaning making from this static representation of the digital mentor text. Therefore, the content for each mode was rearranged in the order it appeared in the digital mentor text (Figure 2).

Deconstruction of Plastic Micro-beads: Beautiful or Barbaric
https://www.youtube.com/watch?v=uAilGd_JqZc
By The Story of Stuff (2:11 length)

Visual Mode					

Oral Mode

These are micro-beads. They are little pieces of plastic, smaller than a grain of sand. And they are everywhere. You might be swishing them around in your mouth, or rubbing them in your face. Yuck!

Micro-beads are in lots of stuff but they show up in most personal care products. Face soap, and body wash, toothpaste. You could even be filling those lines with plastic in age defining make-up. Companies put them in these products as exfoliates, or just for texture. But there is no proof that they even help. And you might not realize that you are using them, unless you know what to look for. Buzz, Buzz, Buzz (polyethylene) But the biggest problem with micro-beads is that they are designed to go down the drain. They are so small, most water treatment plants can't capture them so billions are ending up in our water ways every day.

Written Mode			
The Story of Stuff Project	Million times more toxic	We don't need the beads, BAN the BEADS	TOGETHER WE CAN BAN THE BEAD!

Audio Mode					
Door shutting, cheers	Water sound	Chewing sound	Machine/squeeze sound	Grocery beeps background	Squeezing sound
Scrubbing sound	Scrubbing sound	Draining water			
Spray sound	Brushing sound	Squeezing sound	Buzz, buzz, buzz	Buzz, buzz, buzz	Writing sound

Figure 2   Adapted static representation of digital mentor text.

Finally, explicit instruction was necessary for students to consider how to transfer what they learned from the digital mentor text to a traditional form of writing (Beach, 2015; Howell et al., 2015; Shanahan, 2013). However, despite the fact that the students were able to transfer examples of the visual and oral modes into written text, they were unable to transfer audio content such as sound effects and background

music. Matching the mood the author was trying to convey in the digital mentor text to the reasons of value in the written essay allowed the researcher to scaffold the discussion centered on audio content. For instance, the digital mentor text, *Daylight Saving Time*, used in the fourth instructional session used audio content of heart attacks, car crashes, and a person falling down the stairs to enhance the argument that daylight saving time causes serious health issues. The researcher modeled ways to identify the mood and how to label each sound effect into words, enabling students to evaluate and assess the qualities of an evidence-based argument at the intersection between digital and traditionally-printed mentor texts.

Overall, the pilot study provided important information that enhanced the strategy sheets, improved the sequence of the instruction, and led to a more effective scaffolding of the *Reading Like a Digital Writer* five-step framework. At the same time, the pilot study provided an opportunity to collect student essays that illustrated similar argumentative discourse about the same controversial issues as those used in the main study. Thus, the students' written essays from the pilot study were used in the main study to train one participating educator on how to code an essay for its argumentative structure and another on how to score an essay for its quality.

<h3 style="text-align:center">Main Study</h3>

Using information gleaned from the pilot study, the researcher made the necessary changes to improve the effectiveness of the main study. The design used in the study was an explanatory sequential mixed methods research design (Creswell, 2013) to investigate the effects of explicit instruction scaffolded through the study of traditionally-printed or traditionally-printed and digital mentor texts on fifth-grade students' writing performance of a well-developed evidence-based argument.

Setting

The study was conducted during the fall of 2015 in Sorrell Park, a small public school district located in southeastern Pennsylvania (pseudonyms are used for all names). The elementary school where the study was conducted serves approximately 446 students (55.6% male, 44.4% female) who are predominately Caucasian (92.3%), followed by African American (1.5%), Hispanic (2.9%), Multi-racial (2.6%), and Asian (<1%). A total of 45.3% of the students received free or reduced lunches at the time the study was conducted; none of the students in the elementary school were identified as limited English proficient.

The Sorrell Park School District employs a hybrid literacy framework developed by the Pennsylvania Department of Education. A hybrid literacy framework differentiates instruction by engaging students within three different learning environments (direct, collaborative, and independent), one of which is online (Dellicker, 2013). At the time of the study, Sorrell Park was using Chromebooks to establish an online learning environment where students could collaborate and independently access print and digital texts.

The fifth-grade curriculum at the school is departmentalized, which means one educator teaches math/science/social studies, a second educator teaches ELA-writing, and a third educator teaches ELA-reading. The teachers collaborate and connect their instruction on Google Docs, where eligible content, multidisciplinary skills, and resources are organized into four different modules, one for each marking period. Eligible content, as defined by the Pennsylvania Department of Education, is the most specific description of skills and concepts assessed on the Pennsylvania System of School Assessment (PSSA). The purpose of eligible content is to help educators

identify the range of content students are expected to master at each grade level (Pennsylvania Department of Education, 2014).

Every module contained learning goals and scales, academic vocabulary, and essential questions as a way to help teachers recognize patterns across subjects and their connection to real-world situations. For instance, rather than teach isolated units on argumentation in ELA, weather in science, and exploration in social studies, teachers used Google Classrooms to connect these isolated units into one central theme that addressed the importance of understanding how changes in the world impact the way people relate to each other. Curriculum-based assessments were administered in ELA and math at the start of each module. This information was used to organize fifth-grade students into three different ability groups that rotated throughout the day between all three teachers.

Classroom writing instruction. This study was conducted during the first module at the beginning of the school year, entitled *Discovery and Disaster*, which integrates the social studies content of exploration with the ELA eligible content of argumentation. Over the course of five weeks, the fifth-grade students receive robust argumentative writing instruction through the school's writing curriculum.

Participants

The participants in this study were a small, purposeful, criterion sample (Patton, 1990) of six fifth-grade writers. For the purposes of this study, all the participants were identified as skilled writers, defined as students who scored proficient or advanced on the PSSA. According to the Pennsylvania State Board of Education, a proficient level of academic performance is considered satisfactory, "indicates a solid understanding and adequate display of the skills included in the

Pennsylvania Academic Standards," (Pennsylvania Department of Education, 2014, p. 2). An advanced level indicates that the student has demonstrated superior academic performance by an in-depth and exemplary display of skills.

Since the study was conducted in the beginning of the fifth-grade school year, the decision to use skilled writers was based on two factors. First, empirical studies on the developmental stages of argumentation imply that preschool children have a natural propensity to engage in verbal argumentation (Eisenberg & Garvey, 1981; Stein & Miller, 1990). Despite the fact that the general skills involved in negotiation develop over time, these skills do not necessarily transfer to written argumentation (Kuhn, 1991). The developmental trajectory of argumentation, as outlined by the PA Core, suggests primary grade students should be able to state an opinion and supply evidence to support that opinion. Throughout the intermediate years, students gradually create a more sophisticated opinion piece, with fifth-grade shifting from opinion writing to argumentative writing. Consequently, fifth-grade is considered the transition year where students move from writing opinions to constructing an argument that is text-based with relevant and sufficient evidence gleaned from the texts. The use of a small, purposeful criterion sample of skilled writers during a single-subject design study is supported in the literature (Lewis & Ferretti, 2011).

A second factor refers to research that suggests that the cognitive demands of argumentative writing tasks are complex and may cause an inability among novice writers to manage self-regulatory processes (Harris, Graham, MacArthur, Reid, Mason, 2011). Self-regulation includes a range of cognitive processes used when setting goals, selecting strategies, monitoring strategy use, and evaluating strategy effectiveness. Stein & Miller (1993) maintain that the ability to construct an argument

improves when the writer understands the goals of argumentation. Yet, research suggests novice writers have only limited knowledge about the goals required to write a sophisticated argument (Bereiter & Scardamalia, 2013; VanDerHeide & Newell, 2013). At the same time, novice writers' developmental readiness should also be considered when teaching students about the goals of argumentation. For example, Ferretti et al. (2009) found that sixth-grade writers were able to take advantage of elaborated goal statements given during the writing prompt, while fourth-grade writers' production of argumentative elements was suppressed. Therefore, it was important to select fifth-grade participants who were considered to be strong writers as they were more likely to have the necessary cognitive development and an understanding of the self-regulation involved when writing an evidence-based argument.

Participant selection process. Prior to the start of the study, the researcher met with the Assistant Superintendent of Sorrell Park School District and the Principal of Sorrell Park Elementary School. At the meeting, the study was explained in detail, the proposed procedures for participant selection discussed, and a copy of the study proposal given to both the Assistant Superintendent and the Principal. In a follow-up email to the Principal, the researcher asked that she identify prospective participants for this study through an analysis of 2015-2016 fifth-grade students' ELA scores on the Pennsylvania School System Assessment (PSSA) standardized tests during the spring of 2015. The Principal of the school identified fifty students who received either proficient or advanced English Language Arts scores. It is important to note that students' PSSA score is an overall composite score that includes students' performance level on reading (i.e., key ideas and details; craft and structure;

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integration of knowledge and ideas; vocabulary acquisition and use), writing (i.e.

types of writing and language), and text dependent analysis. Even though results from

the district wide PSSA profile score suggested that none of the students attending the

school were able to meet the demands of the argumentative writing task at the advance

level, students were still assigned an overall ELA composite score for an advanced

level. After receiving approval from the Institutional Review Board (IRB), the

researcher requested that the principal or teacher meet with these students to explain

the study and give each student a copy of the consent letter to take home to his or her

parents. This procedure was necessary due to a request made by the Institutional

Review Board (IRB) that the researcher not meet with students prior to them receiving

parental consent. Of the fifty prospective participants, twenty-two students received

parental permission to participate in the study.

   Participant data. As previously discussed, six fifth-grade students, four males

and two females, were randomly selected from the twenty-two students that received

parental permission and gave their informed assent to participate in the study. Students

were then separated by gender and randomly assigned to one of two conditions, with

one female and two males in each condition. English was the first language of each

student and all participants were Caucasian. Additionally, all students stated during

instruction that they liked to read and write. Table 6 presents the participants'

demographic data.

Table 6   Participant Demographic Data and Pennsylvania State Assessment
              Scores (PSSA)

Participant	Condition	Gender	Age	Grade	PSSA
T1	Traditional	M	10	5	1151 – Advanced*
T2	Traditional	F	10	5	1072 - Proficient
T3	Traditional	M	10	5	1064 - Proficient
TD1	Traditional and digital 1	F	10	5	1209 - Advanced
TD2	Traditional and digital 2	M	10	5	1080 - Proficient
TD3	Traditional and digital 3	M	10	5	1173 - Advanced

Note: All composite scores are from the 2014-2015 PSSA test for these students in 4th grade.

In the first condition, students learned about evidence-based argumentation through the study of two traditionally-printed mentor texts. In the second condition, students learned about evidence-based argumentation through the study of one traditionally-printed mentor text and one digital mentor text. Students in both conditions were given explicit instruction in how to deconstruct a mentor text to identify the structural elements of an evidence-based argument and the intentional decisions made by the author to make the argument more convincing.

Traditionally-printed condition. The three students randomly assigned to the traditionally-printed condition were designated T1, T2, and T3. Personal information about each student was gained through informal conversations during the sessions.

Traditional 1 (T1). T1 was a 10 year, 10 month old Caucasian male in fifth grade. His PSSA score, 1151, fell within the lower range (1107 – 1724) of advanced performance.

Traditional 2 (T2). T2 was a 10 year, 7 month old Caucasian female in fifth grade. She scored 1072 on the PSSA, in the middle range (1000 – 1107) of proficient performance.

Traditional 3 (T3). T3 was a 10 year, 11 month old Caucasian male in fifth grade. He scored 1064 on his PSSA, in the middle range (1000 – 1107) of proficient performance.

Traditionally-printed and digital condition. Students in the traditionally-printed and digital condition were designated TD1, TD2, and TD3. During the sessions, the researcher again collected personal information about each student from informal conversations.

Traditional and digital 1 (TD1). TD1 was a 10 year, 9 month old Caucasian female in fifth grade. TD1's PSSA score, 1209, fell within the middle range (1107 – 1724) of advanced performance.

Traditional and digital 2 (TD2). TD2 was an 11 year, 2 month old Caucasian male in fifth grade. TD2 scored 1080 on his PSSA, in the high range (1000 – 1107) of proficient performance.

Traditional and digital 3 (TD3). TD3 was a 10 year old, 6 month old Caucasian male in fifth grade. TD3 scored 1173 on his PSSA, in the low range (1107 - 1724) of advanced performance.

Materials

The materials for the instruction and assessment measures consisted of: 1) traditionally-printed and digital mentor texts; 2) strategy sheets; 3) graphic organizers; and 4) evidence-based argumentative writing probes. These materials are described below.

Traditionally-printed and digital mentor texts. Before the study began, the researcher established quality criteria for selecting and creating mentor texts. Research typically defines a mentor text as an example of a well-developed written essay that is used to think deeply about the process of writing an evidence-based argument (Pytash et al., 2014; Pytash & Morgan, 2013). For this study, a traditionally-printed mentor text is defined as an evidence-based argument composed solely of written words (Knudson, 1989; van Eemeren & Grootendorst, 2004). A digital mentor text is similar to a traditionally-printed mentor text in quality and content but conveys an argument through the integration of multiple modes (i.e., visual, oral, written, and audio content) in a digital environment (Howell et al., 2015). Mentor texts were chosen for this study because literacy researchers have identified the study of mentor texts as an effective instructional method for scaffolding the teaching and learning of evidence-based argumentation (Graham & Perin, 2007a; Pytash et al., 2014; Pytash & Morgan, 2013; van Eemeren & Grootendorst, 2004).

Using the quality criteria developed by Ferretti et al. (2000), a mentor text should contain: 1) a clear standpoint and reasons to support that standpoint; 2) reasons that are explained clearly and elaborated using information that could be convincing; 3) an alternative standpoint and reasons against it, either with refutation or alternative solutions; and 4) a concluding statement. Additionally, the mentor text needs to be well organized and free of inconsistent evidence that would weaken the argument. The

final digital mentor texts ranged in time from one minute and eight seconds to four minutes and seventeen seconds in length.

Once the quality criteria had been established, the researcher identified appropriate controversial topics that were likely to be familiar to fifth-grade students. This was established by reading the literature on argumentation (De La Paz & Graham, 1997; Ferretti et al., 2007; O'Hallaron, 2014) and accessing websites (i.e., ProCon.org and Wonderopolis.org) and educational resources (Scholastic's Scope Debate and Time for Kids Debate) dedicated to providing free traditionally-printed and digital mentor texts. A Google Doc was created to curate the links of the traditionally-printed and digital mentor texts for future examination. Examples of topics included toy advertisements, video games, school uniforms, and studying to music.

After the fifteen traditionally-printed and ten digital mentor texts had been collected, these were analyzed against the quality criteria. This procedure eliminated many traditionally-printed and digital mentor texts. For example, there was a digital mentor text about the controversial issue of whether cat owners should keep their pets indoors or allow them to go outdoors and explore. However, when it was analyzed against the quality criteria of an argument, the video was missing a clear standpoint and reasons that were elaborated using information that could be convincing. Therefore, this digital mentor text was eliminated from the study. Finally, the Lexile scores of the traditionally-printed mentor texts were calculated using Lexile.com; all texts scored between 890 and 910, which is considered appropriate readability for an average fifth-grade student.

The remaining mentor texts, twelve traditionally-printed and six digital, were intentionally selected to represent alternative viewpoints for each controversial topic. For example, the first instructional session contained a mentor text from the viewpoint that zoos are conserving wild animals and a mentor text from an alternative viewpoint that stated zoos are cruel to wild animals. The traditionally-printed condition contained two traditionally-printed mentor texts and the digital condition contained one traditionally-printed text and one digital mentor text. Instruction in both conditions always presented the mentor texts from the same viewpoints. Table 7 shows the presentation order of the mentor texts and their viewpoints.

Table 7   Order of Mentor Text by Alternative Viewpoint

Instructional Session	Viewpoint for First Mentor Text	Viewpoint for Second Mentor Text[a]
One	Zoos Conserve Wild Animals	Zoos are Cruel to Wild Animals
Two	Microbeads are Barbaric	Microbeads are Beautiful
Three	Milk is Harmful to the Body	Milk is Helpful to the Body
Four	Daylight Saving Time is Worthless	Daylight Saving Time is Worth It
Five	Tests are Ruining Education	Tests Make Education Rigorous
Six	Cats Belong Outdoors	Cats Belong Indoors

[a] Note that there were two options for these texts, one traditionally-printed and one digital.

All the passages were pre-tested with the three female fifth-grade students during the pilot study to validate the appropriateness of the mentor texts for both the

traditionally-printed condition and the traditionally-printed and digital condition.

Appendix C presents the mentor texts used in the traditionally-printed condition and

Appendix D the mentor texts used in the traditionally-printed and digital condition.

Strategy sheet. The purpose of the strategy sheets was to provide a self-monitoring tool that students could refer to throughout each instructional session as a gentle reminder of the abstract concepts, step-by-step processes, and sentence frames. Each strategy sheet was introduced at the beginning of the instructional session and detailed the writing strategy for that session by listing the actionable steps, or intentional decisions, a writer uses when generating an evidence-based argument. The strategy sheet was intended to guide students through the problem-solving process of evidence-based argumentation by targeting the author's perspective in the mentor texts, examining the evidence from both sides of the issue, taking a stance, and then using evidence to extend the conversation about the issue. Appendices C and D present the strategy sheets used during each instructional session.

Graphic organizer. A graphic organizer that reflected the elements in an evidence-based argument was designed to guide students as they conducted a close reading of both mentor texts for specific phrases and intentional decisions that conveyed a compelling argument. The graphic organizer provided a space for students to write these ideas into argumentative element categories (i.e., introduction, standpoint, reason, alternative perspective, and conclusion) to help them organize their essays.

As students made notes about the mentor texts, they were encouraged to directly quote the text or paraphrase key information (e.g., facts and examples), thus establishing a procedure to protect against plagiarism. After deconstructing the mentor

texts, students used the information in the graphic organizer to consider the most effective ideas that would support their standpoint and enhance their argument. In this way, the graphic organizer prompted students to reflect on the structure of an argument and guided them to make intentional decisions similar to the ones in the mentor texts. Appendices C and D also present the graphic organizers used during each instructional session.

  Probes. In this study, evidence-based argumentation writing prompts were used to give students information about the writing task and about the controversial issue under discussion. Some of those writing prompts served as probes, which were used to assess the extent to which the use of traditionally-printed and digital mentor texts affected students' writing performance. These probes were administered on three different occasions throughout the study, with the first being administered prior to instruction to establish a stable baseline for each student, the second immediately after instruction to collect independent performance criteria, and the third three weeks after instruction to establish maintenance. The sixteen probes used during the study were initially piloted for the appropriateness of each topic for a fifth-grade student. Following IRB approval, the researcher obtained contact information for three female fifth-grade ELA teachers from a district outside the main study. Using email communication, the potential participants were invited to take an online survey designed to glean the teachers' perspectives on twenty-two evidence-based argumentative writing probes. All three participants completed the survey, yielding a 100% return rate. The survey asked participants to read and rate each individual probe by considering whether it was: 1) appropriate for a fifth-grade student; 2) inappropriate for a fifth-grade student; or 3) appropriate for a fifth-grade student with

these changes (please list the changes below). To ensure anonymity, all data were collected using Qualtrics, a password-protected online survey site.

The results from the survey revealed that the teachers considered six probes inappropriate for a fifth-grade student, namely toy ads, bring your own device, cell phones, social networking, movie ratings, and banning peanuts, so these were removed as potential writing probes. Two probes were rated as appropriate with changes to one or more words describing the opposing point of view: a baseline probe, *School Sports: Excellent or Evil* was changed to *School Sports: Excellent or Worthless*, and a post-instruction probe, *Video Games: Victorious or Violent*, was changed to *Video Games: Awesome or Awful*. Overall, fourteen writing probes were rated appropriate for fifth-grade students and included in the main study. Table 8 shows the final list of writing probe topics.

Table 8   Writing Probe Topics

Baseline	Post-Instruction	Maintenance
A - Books: Textbook or Tablet?	F - Sugary Drinks: Avoid or Enjoy?	I - Studying to Music: Relaxing or Distracting?
B - School Uniforms: Brilliant or Boring?	G - Video Games: Awesome or Awful?	J - Chocolate: Healthy or Harmful?
C - Trampolines: Dangerous or Safe?	H - School Start Time: Early or Late?	
D - School Sports: Excellent or Worthless?		
E - Parents Helping with Homework: Right or Wrong		

Procedures

Using a mixed methods research design (Creswell, 2013), this study examined the effects of explicit instruction scaffolded through the study of traditionally-printed and digital mentor texts on fifth-grade students' writing performance of a well-developed evidence-based argument. A single-subject multiple-baseline with multiple probes approach (Kennedy, 2005; Lewis & Ferretti, 2011) was used to track changes in students' writing performance over time and a single case study approach (Yin, 2004) provided an opportunity to describe how instruction that used mentor texts affected the quality of students' evidence-based arguments. The researcher collected all the data sources for this study. After the six participants had been randomly assigned to one of the two study conditions, the researcher met with each student individually to administer multiple writing probes before and after instruction to establish students' writing performance.

Administration of probes. Baseline probes were given to each student individually prior to instruction; post-instruction probes were given immediately after instruction; and maintenance probes were given three weeks after instruction. During the administration of the baseline, post-instruction, and maintenance probes, participants were encouraged to read the evidence presented by both sides and then construct an argument that supported their standpoint. Appendix E presents the writing prompts for the baseline, post-instruction, and maintenance probes. Students were provided with sufficient paper to plan and write their essay. No feedback was provided to students about the quality or content of their writing.

Once the baseline for each student had been established, the instructional protocol was introduced using traditionally-printed and digital mentor texts (for the students assigned to the second study condition) that consisted of an introduction,

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standpoint, reasons, alternative standpoint, and conclusion. Immediately after the last instructional day, each student participated in a retrospective semi-structured interview with the researcher to discuss their reading and writing process. After the instructional phase of the study was complete, students in each condition completed three post-instruction probes using the same procedures used during the baseline and a further two maintenance probes were administered to each student three weeks after instruction. The probes were counterbalanced across all six students to control for order effects and minimize any impact of the probes on the results. Table 9 shows the order of administration of the writing probes.

Table 9   Administration Order of Writing Probes

Participant	Baseline Probes	Post-test Probes	Maintenance Probes
Traditional 1	ABC	FGH	JI
Traditional 2	BCDA	GHF	IJ
Traditional 3	CDEAB	HFG	JI
Traditional and digital 1	DAB	GHF	IJ
Traditional and digital 2	ADBC	FGH	JI
Traditional and digital 3	EABCD	HFG	IJ

General instructional procedures. The six participating students were individually instructed to use either traditionally-printed mentor texts or traditionally-printed and digital mentor texts, depending on the treatment they had been assigned to, for 23 – 48 minute sessions during the school day in a modular classroom located

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outside the fifth grade general education classrooms. Students in the traditionally-printed condition participated in six instructional sessions and the students in the traditionally-printed and digital condition participated in seven instructional sessions before they were given post-instruction probes.

The researcher used scripted lesson plans to guide the teaching of each writing strategy: 1) *Target the Author's Perspective* on a controversial issue; 2) *Examine the Evidence* by identifying the elements in an argument; 3) *Read Like a Writer* by using the two traditionally-printed mentor texts to support their writing decisions; 4) *Extend the Conversation* by writing paragraphs that include reasons, evidence, and a tie-in sentence; and 5) *Negotiate a Solution* by noting alternative perspectives and offering alternative solutions. Appendices C and D present the scripted instructional protocols. The traditionally-printed and digital condition included an additional instructional session in order to teach students how to make meaning from multiple modes, discuss their affordances, and analyze the coherence in the argument. The final instructional session for both conditions involved a retrospective semi-structured interview that allowed students to explain their writing process and intentional decisions as they wrote their evidence-based argument.

Treatment validity. To ensure that the instructional procedures were delivered with fidelity across both conditions for all six students, the following procedures were established. First, the lesson plans (i.e., scripts, any materials needed, and a checklist for each session) were written in detail. Second, each step of instruction was checked off when completed (Appendix F). Finally, all the verbal data from each instructional session were audiotaped, transcribed, and analyzed by the researcher against the checklist. These checklists, which were based on the instructional procedures

described above, listed the performance objectives that participants needed to perform independently before moving to the next phase of instruction. The review showed that treatment fidelity was 100% for all six participants.

Instructional Procedures

The instructional method for the study was informed by the Self-Regulated Strategy Development (SRSD) model because of its known effectiveness in supporting students' development of the skills, strategies, and self-regulation process demonstrated by expert writers (De La Paz & Graham, 1997; Graham & Harris, 1989; and Harris & Graham, 1999, 1992). The instructional method for both conditions followed the gradual release model (Pearson & Gallagher, 1983) where the researcher systematically and explicitly modeled specific writing strategies and then stepped back to provide opportunities for students to develop an independent application of the strategies. Each session consisted of six stages: 1) activating students' schema; 2) building background knowledge; 3) clarifying the strategy 4) deconstructing the mentor texts; 5) demonstrating the strategy with writing; and 6) evaluating students' learning (Appendices C and D). The purpose of the six-stage instructional method was to scaffold connections between the knowledge students already possessed about evidence-based argumentation with the new writing strategies taught during each session. Thus, developing students' ability to self-regulate the cognitive processes required them to write an evidence-based argument.

As in all research designs involving the use of multiple-baseline across participants, the instruction was staggered to establish experimental control. The instruction for this study consisted of six sessions in the traditionally-printed condition and seven sessions in the traditionally-printed and digital mentor text condition. The

traditionally-printed and digital mentor text condition received an extra session to introduce modes, multimodality, and modal affordances. Since the students were novice multimodal meaning makers, this extra session was important for supporting students' thinking when deconstructing digital mentor texts (Mills, 2010; Karchmer-Klein & Shinas, 2012; Zammitt, 2010). Table 10 lays out the schedule for the instructional sessions and shows the total instructional time per student.

Table 10   Instructional Sessions and Total Instructional Time

Participant	Instructional Sessions	Total Instructional Time	Average Instructional Time Per Session
Traditional 1	6	278 minutes	46 minutes
Traditional 2	6	266 minutes	44 minutes
Traditional 3	6	292 minutes	48 minutes
Traditional and digital 1	7	283 minutes	41 minutes
Traditional and digital 2	7	301 minutes	43 minutes
Traditional and digital 3	7	316 minutes	45 minutes

Note: The digital condition included an additional instructional session to introduce modes.

In accordance with the framework of a single-subject multiple-baseline with multiple probes design (Kennedy, 2005; Lewis & Ferretti, 2011), described earlier in this section, once a stable baseline had been established the six students were given explicit instruction in deconstructing mentor texts for their argumentative structure and identifying the intentional decisions made by the author. The students were then instructed to use the mentor texts to guide their decisions as they wrote an evidence-

based argument on the same controversial issue. This type of expert-novice apprenticeship has been shown to provide a framework to build toward independence that enables students to "emulate the critical elements, patterns, and forms embodied in the models in their own writing" (Graham & Perin, 2007b, p. 20).

Traditionally-printed mentor text instruction. The three students assigned to the traditionally-printed condition were given specific instruction in how to deconstruct a traditionally-printed mentor text, which relies on the detection of a chain of reasons that are acceptable and relevant to managing the resolution of a difference of opinion (Kuhn & Crowell, 2011; van Eemeren & Grootendorst, 2004). In the traditionally-printed condition, the researcher provided explicit instruction on the process of identifying intentional decisions made by the author to help the student develop a deeper understanding of the formal logic that provides chains of evidence to support claims held by both the author and the audience (Hillocks, 2010). For example, after reading the mentor text, the researcher asked students, "How did the author use words to support the standpoint?" Students were also shown how to use these chains of evidence to weaken an alternative perspective in their own evidence-based argument.

Traditionally-printed and digital mentor text instruction. The three students assigned to the traditionally-printed and digital condition were taught how to deconstruct one traditionally-printed and one digital mentor text. The same traditionally-printed mentor text was deconstructed in both conditions because students were asked to write a traditionally-printed essay. However, deconstructing a digital mentor text required students to move beyond the affordances of a traditionally-printed mentor text by examining how the author used multiple modes

(i.e., visual, oral, written, audio) to convey a compelling argument. Instruction in the traditionally-printed and digital condition began by introducing the components of multimodal meaning making, which included 1) defining the specialized vocabulary of mode, modal affordance, and coherence; 2) making sense of a multimodal argument by identifying how visual images, narration, written language, and audio content contributed to the elements of an argument; and 3) noticing the intentional decisions the author used to enhance the argument. For instance, after watching the digital mentor text, the researcher asked, "How did the author use visual images to support the standpoint?" The static representation of the digital mentor text also helped students notice how an author used multimodal evidence to enhance the argument.

Writing strategies. Mastery is a critical and necessary component of a single-subject multiple-baseline with multiple probes design (Kennedy, 2005; Lewis & Ferretti, 2011). It is therefore important to continuously evaluate mastery to ensure students could demonstrate the ability to apply the writing strategy independently before introducing a new strategy. If students were unable to demonstrate mastery of a particular aspect, then the researcher retaught the strategy by reviewing the strategy sheet and providing additional writing prompts for guided practice.

Targeting the Author's Perspective. The goal of this strategy is to identify the topic, author's standpoint, and purpose for the argument: the topic is what the author is writing about, the standpoint is what the author believes about the topic, and the purpose is why the author believes his standpoint is valid. Using mentor texts from two opposing standpoints (for example, zoos are either conserving species or cruel to wild animals), the researcher used a think aloud in both conditions to show how the author mentions these components several times throughout the argument. In the

traditionally-printed condition, students highlighted repeated words and phrases as evidence of the author's perspective. For example, T1 highlighted the word "zoos" as the topic, "zoos conserve animals" as the standpoint, and "create healthy homes for animals" as the purpose of the argument because they were used several times in the essay. Instruction continued by reading the mentor text to identify the intentional decisions and writing strategies used by the author.

In the traditionally-printed and digital mentor text condition, students looked across multiple modes (i.e., visual, oral, written, and audio content) by noticing repeated images, spoken words, written text, and music. For instance, TD1 stated, "The visual shows polar bears in the wild without snow (topic), the voice of the scientist shows his excitement for polar bears, the music creates a calming sense that the scientists wants to help the polar bears (standpoint), and the written words explained why the polar bears needed help (purpose)." The researcher transcribed the students' thoughts onto the strategy sheet and then asked the student why the author used these modes in their argument. TD1 replied, "To kind of get you to understand their topic and what they're trying to do to help the polar bear conservation."

After deconstructing the mentor texts, the student and researcher worked together to apply *Targeting the Author's Perspective* strategy by writing their own perspective sentence about zoo conservation or cruelty to animals. In order to move from *Targeting the Author's Perspective* strategy instruction, students had to: 1) explain the four reasons for writing an evidence-based argument; 2) define the three components of the *Targeting the Author's Perspective* strategy; and 3) write their own perspective sentence that matched their standpoint.

Examine the Evidence. The purpose of this strategy was to define the five elements of an evidence-based argument (van Eemeren & Grootendorst, 1992) and model the process of selecting evidence to support a standpoint. In both conditions, the researcher used a think aloud to show the author's intentional decision to use positive or negative evidence to support the standpoint. Both conditions deconstructed two mentor texts: one addressed the argument that plastic microbeads are barbaric and the other addressed the argument that plastic microbeads are beautiful. On one hand, if the author's standpoint on plastic microbeads is that they are barbaric, the intentional decision will be to use examples that present the harmful or negative effects of plastic microbeads. However, if the author's standpoint is that plastic microbeads are beautiful, he or she may intentionally select examples that support the beneficial or positive effects of using microbeads.

In the traditionally-printed condition, the paragraphs were labeled for their argumentative elements and then phrases were highlighted to show how the author constructed each element. While reading the reason paragraphs, T2 highlighted, "For example" and "This was shown by a study," as phrases that signaled evidence. In addition, T2 noticed how the author intentionally used negative evidence such as "35% of 670 fish had microplastic beads in their stomachs," to support his or her standpoint that microbeads are barbaric. In the traditionally-printed and digital condition, the video was paused after each element to discuss how the author represented evidence through different modes. TD3 noted the visual modal affordance of color was used to layer meaning to the evidence "because it's like a stoplight when the evidence turns green it's good and when the evidence turns red it means stop." Also, TD3 pointed out how the oral narration changed the tone of her voice to a higher

pitch to make the evidence stand out when she said, "microbeads could end up back in your sushi."

Once both mentor texts had been deconstructed, the researcher and student applied the *Examine the Evidence* strategy by selecting their standpoint and evidence to support their own evidenced-based argument about plastic microbeads being barbaric or beautiful. The level of mastery for the *Examine the Evidence* strategy was achieved once students were able to: 1) list the five elements of an evidence-based argument; 2) explain the purpose of each element; 3) select and write evidence using a graphic organizer; and 4) share how *Examine the Evidence* helped them learn about writing a complete argument.

Read Like a Writer. The goal of this strategy was to model the close reading process laid out in *Read Like a Writer* (Smith, 1983) by skimming through the text to notice the author's style and identify parts of the mentor text that could help generate or organize ideas. The researcher explained the same actionable writing strategy for each condition as noticing how the author uses a bridge sentence in the introduction and a call to action in the conclusion. A bridge sentence acknowledges both sides of the argument as a neutral statement. A call to action is a statement that explains what the author wants the reader to do.

In the traditionally-printed condition, T3 discovered how the bridge sentence, "On one hand some say milk contains many important ingredients. On the other hand many feel drinking milk does more harm to our bodies than good," helped him make a connection to a friend who is lactose intolerant. T3 mentioned the call to action was telling the reader to drink a glass of milk instead of a glass of water. As a result, T3 felt the author's standpoint was valid because of his personal connection to the bridge

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sentence and call to action. In the traditionally-printed and digital condition, TD2 explained how the electronic music in the introduction got him interested and the oral narration used a bridge sentence in the form of a question, "Is this a nice cold glass of tasty milk or a toxic liquid," which made him think more deeply about the author's standpoint. In addition, TD2 liked how the author phrased his call to action by saying, "I am cool with that tall glass of water." Stating a call to action as a personal example made TD2 feel like he could also make that choice for himself.

Once both mentor texts had been deconstructed, the student and researcher practiced using the *Read Like a Writer* strategy by writing their own introduction and conclusion paragraphs about the healthy or harmful effects of milk. During this *Read Like a Writer* strategy instruction, students needed to demonstrate the ability to: 1) summarize the author's perspective; 2) identify the argumentative elements in the mentor text; 3) improve their own argument by selecting words and phrases from the mentor text; 4) describe how *Read Like a Writer* helped them improve the introduction and conclusion paragraphs.

Extend the Conversation. Here, the goal is to show students how to acknowledge the reader's perspective by expanding the paragraphs with reasons, evidence, and tie-in sentences. A reason sentence restates the standpoint by providing examples the reader may value; evidence is a quote, fact, or example from other sources; and a tie-in sentence explains how the evidence supports the reason. The actionable writing strategy, which was explained to students in both conditions, showed how the author intentionally stated the values a reader may have and then used evidence to offer positive or negative information to support the standpoint.

In the traditionally-printed condition, T1 noticed that evidence that contained numbers provided strong support for the reason of value that daylight saving time is an unpopular tradition with, "45% of people saying that it was pointless and not worth the hassle and 35% believe it should continue." As a result, T1 felt more people do not like daylight saving time, which made the author's standpoint more persuasive. In the traditionally-printed and digital condition, TD3 identified the way the reason of value was first stated using the oral mode, "the immediate effects can be disastrous," and then supported through negative visual, oral, written, and audio evidence. For example, the author used an oral explanation with images of a car collision, the sound of two cars colliding, and written statistics that car crashes increase by 17% on the Monday after Daylight Saving Time commences. TD3 explained that the reason of value was supported through negative evidence, which made the argument more persuasive.

The student and researcher worked together to apply the *Extend the Conversation* strategy by writing their own reason paragraphs with a reason of value, evidence, and a tie-in sentence. Students' were able to move beyond *Extend the Conversation* strategy instruction when they: 1) explained the three components of a reason paragraph; 2) selected evidence that included positive or negative information from other sources to support the standpoint; 3) created a tie-in sentence that explained how the evidence supported each reason; and 4) discussed how *Extend The Conversation* helped them strengthen the reason paragraphs.

Negotiate a Solution. The goal of this strategy was to model how to create a counterargument by mentioning the alternative perspective and then using evidence to support the standpoint. The actionable writing strategy pointed out how the author

used a counterargument in every reason paragraph to acknowledge the opposite standpoint and then stated evidence to show how the author's standpoint was more valid.

In the traditionally-printed condition, T3 identified the way the author used phrases such as "even though" and "while it might be true" to show that he or she was intentionally acknowledging the alternative perspective while at the same time stating evidence supporting the opposite standpoint. For example, T3 identified the counterargument, "While it might be true that standardized tests show what students have learned in school, many students feel anxious while taking these tests." T3 then went on to make a personal connection by stating, "The first time my sister took the state test in third grade, three people went home sick." As a result, the counterargument strengthened the argument against standardized testing. In the traditionally-printed and digital condition, TD2 stated that the visual image of people holding written signs that said, "Stop the MAP," along with the oral mode of people "yelling that they didn't need the test," provided support for the author's argument that standardized tests are ruining education.

After deconstructing the mentor texts, the student and researcher worked together to apply the *Negotiate a Solution* strategy by writing their own counterargument about standardized tests raising classroom standards or ruining education. *Negotiate a Solution* mastery expectations included: 1) summarizing the five elements of an evidence-based argument; 2) explaining the importance of a counterclaim; 3) using sentence frames (i.e., While it might be true that…many people think…) to create counterclaims; and 4) sharing how *Negotiate a Solution* helped them write a compelling argument.

In the final instruction session, students were given an opportunity to apply the five writing strategies they had learned in the previous sessions by writing an evidence-based argument about whether pet owners should allow their cats to roam freely outside or be kept indoors. The students wrote their evidence-based argument without strategy sheets, graphic organizers, or assistance from the instructor. When students were able to perform the argumentative writing task independently, they were given the post-instruction probes.

Data Sources and Analysis

Three data sets were collected from each of the six participants during the intervention: student artifacts (i.e., annotations, graphic organizers, and written essays), transcripts from instructional sessions, and retrospective semi-structured interviews. Data were analyzed in relation to the theoretical frameworks of social constructivism and multimodality for each of the two research questions (see Table 11). First, for the purpose of this study, framing the research questions in relation to the social constructivist theoretical perspectives provided insight into the ways that explicit cognitive strategy instruction was delivered within the students' zone of proximal development (Vygotsky, 1978) so students could learn how to communicate through written evidence-based argumentation. Second, framing the research questions in relation to the tenets of multimodality provided insight into the ways students developed a complex process of meaning making (Jewitt, 2008; Walsh, 2010) due to the combinations of visual, oral, written, and audio content within the digital mentor text. In all, 860 pages of data consisting of student artifacts (annotated mentor texts - 84 pages; graphic organizers - 80 pages; essays - 67 pages), transcripts of instructional sessions (503 pages), and retrospective semi-structured interviews (126

pages) were scored or coded and then analyzed to investigate precisely how the study of traditionally-printed and digital mentor texts affects fifth-grade students' ability to construct an evidence-based argument.

Table 11   Data Matrix

Data Source	Rationale	Process	Research Question
Student artifacts (i.e., annotations, graphic organizer, written essay)	Research on writing suggests experts use metacognitive strategies to craft an argument. In order to determine the differences between instruction in the two conditions, students' evidence-based written essays were analyzed for the length, structure, and quality of their writing. This analysis occurred before and after the intervention.	Each essay was analyzed for the length of the argument (i.e., number of words written, regardless of spelling) then scored for the structure and, finally, rated for the quality of the writing.	What are the differences in the way students write evidence-based arguments when instruction is scaffolded using traditionally-printed mentor texts as opposed to both traditionally-printed and digital mentor texts?
Transcripts of instructional sessions	Research on verbal data (e.g., audio recordings of instructional sessions) suggests one way to closely analyze the data is by transcribing the audio recordings into written form. This analysis used written transcriptions to represent the communication between the researcher and student during each instructional session.	Each instructional session was audio taped using a digital recorder and then transcribed. Using the constant comparative method of analysis (Glaser & Strauss, 1967), the researcher read the data to record salient quotes and note emerging themes.	How does the use of mentor texts during instruction impact students' writing performance of an evidenced-based argument?
Retrospective semi-structured interviews	Research on writing suggests scholars can learn about the strategies and processes used during composition through verbal protocols. The rationale for administering retrospective interviews is to collect qualitative data that allows a close examination into students' understanding of the author's intentional decisions when writing an evidence-based argument.	The retrospective interviews were audio taped using a digital recorder and transcribed by a certified transcriptionist.	How does the use of mentor texts during instruction impact students' writing performance of an evidenced-based argument?

Student artifacts. Data in the form of student artifacts (i.e., annotations, graphic organizer, written essay) are frequently used as a tool to evaluate what students know (Graham, 2006; Olinghouse et al., 2015). Critical to the process of qualitative data analysis is the combination and integration of three data sets to triangulate results and enhance the validity of the study. For the purpose of this study, students' artifacts were analyzed to triangulate the themes related to students' use of traditionally-printed and digital mentor texts. First, students' annotations provided evidence of *Reading Like a Writer* (Smith, 1983) as students highlighted phrases and noted the author's intentional decisions that they considered adding to their own evidence-based arguments. Second, students' notes on the graphic organizers provided visual data depicting students' planning processes as they shifted from *Reading Like a Writer* to composing an essay. Third, students' written essays were coded for common phrases that were also highlighted in students' annotations and graphic organizers. Triangulation of findings was assured by identifying common phrases across annotations, graphic organizers, and written essays.

Transcripts of instructional sessions. As described previously, verbal data were collected using a digital voice recorder to capture the communication between the researcher and student during each instructional session. Research on the qualitative analysis of verbal data (e.g., audio recordings of conversations between the researcher and student) suggests one way to closely analyze the data is by transcribing the audio recordings. The digital audio files were therefore stored on a password-protected server and shared with a certified transcriptionist. During the transcription process, all participants' names were replaced with pseudonyms; the transcripts contained all verbal and nonverbal utterances. Transcript data from both conditions

were analyzed to examine participants' use of mentor texts to construct an evidence-based argument.

Retrospective interviews. A retrospective semi-structured interview (Afflerbach & Cho, 2009) gives participants an opportunity to elaborate on their thinking and strategy use throughout the process of writing an evidence-based argument. The rationale for administering retrospective semi-structured interviews was to collect self-reported data for a close examination of the second research question, which examined how instruction that used traditionally-printed and digital mentor text impacted students' writing performance of an evidence-based argument.

The interviews were conducted during the final instructional session for each student (Merriam, 2014) for several reasons. The researcher sought to: 1) further understand each student's knowledge of the structural elements and strategies available when writing an evidence-based argument; 2) identify changes in students' writing behaviors; and 3) provide students with an opportunity to reflect on their perceptions and indicate the ways in which they used traditionally-printed and digital mentor texts to support their intentional decisions. The interview questions (Appendix G) were deliberately designed to be open-ended in order to learn more about the differences in the writing process and structure of an evidence-based argument when writing instruction is scaffolded with traditionally-printed and digital mentor texts. All interviews were recorded using a digital voice recorder and then transcribed by a certified transcriptionist. Appendix G presents the retrospective semi-structured interview protocol.

Data analysis for Research Question 1. All the essays produced by the students (i.e., baseline, post-instruction, maintenance probes) were analyzed for essay

length, argumentative structure, and writing quality. The essay length was analyzed using mean scores, after which the argumentative structure was analyzed using the pragma-dialectical theory of argumentation (van Eemeren and Grootendorst 2004). Next, the overall quality of each essay was analyzed by applying a primary trait rubric (Ferretti, MacArthur, & Dowdy, 2000) and the finally, the percentage of nonoverlapping data (PND) (Scruggs et al., 1986) was calculated to determine the effectiveness of the intervention by analyzing all essays for the use of target measures practiced during instruction (Lewis & Ferretti, 2011).

Essay length. Essays have also been widely used as tools to evaluate students' topic, genre, and discourse knowledge (Graham, 2006; Olinghouse et al., 2014). Prior to scoring, all essays were typed and corrected for spelling, punctuation, and capitalization to avoid presentation effects (i.e., effects that influence a rater but are unrelated to the message conveyed by the writer) (Graham, Harris, & Hebert, 2011). All words, regardless of spelling, were counted using Microsoft Word's word count application.

Argumentative structure. Following the procedures recommended by Lewis and Ferretti (2011), the pragma-dialectical theory of argumentation was used as a coding system to evaluate the elements of the argumentative structure and the relationships among elements in the students' written essays (van Eemeren & Grootendorst, 1992, 2004; van Eemeren et al., 2002). After segmenting the essays into meaning units consisting of independent clauses with their attached subordinate clauses, each meaning unit was classified as either a functional or nonfunctional unit. Functional units were deemed to be those that advanced the essay by directly supporting the students' written argument, while non-functional units included

information that was unrelated to the argument (i.e., personal comments on the difficulty/simplicity of the task) or repeated information. Next, each functional unit was coded as one of the argumentative elements in the pragma-dialectical framework (van Eemeren & Grootendorst, 1992, 2004; van Eemeren et al., 2002), including: 1) introduction of the controversial issue; 2) standpoint of main point or position of the student; 3) level one reasons (i.e., reasons directly below the standpoint); 4) level two reasons (i.e., interdependent to level one reasons by offering evidence); 5) level three reasons (i.e. subordinate to level two reasons by shared values that connect the evidence to the standpoint) ; 6) bridge sentences (i.e. acknowledging both sides of the issue); 7) alternative perspective sentences (i.e., recognizing a different point of view with which the student disagrees); 8) rebuttal (i.e., potential objections to the alternative perspective that strengthen the student's standpoint); 9) conclusion that summarizes the argument and presents a call to action; and 10) nonfunctional units (i.e., information that is irrelevant to the topic). Each unit was coded and then depicted by creating a graphical representation of the structure of each essay. Figure 3 shows an example of the graphical representation for T1's evidence-based argument. Appendices A and B include graphic representations of two exemplar essays (i.e., one baseline essay and one maintenance essay) for all six participants.

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Introduction

Have you ever thought about trampolines? Are they dangerous or are they safe? I think they are safe and I'm sure a lot of other kids would agree with me! I think trampolines are safe because jumping on a trampoline is excellent exercise, trampolines provide children with active play, and trampoline training is important for extreme sports, like skateboarding and snowboarding.

SP1
I think trampolines are safe

SP1.R1
First of all, I think trampolines are very safe because jumping on a trampoline is definitely great exercise.

SP1.R2
Second of all, trampolines definitely provide children with wonderful play.

SP1.R3
Third of all, I think trampolines are healthy because trampoline training is great for extreme sports, like skateboarding.

SP1.R1.R1
I know this because, according to the text, " jumping on a trampoline is excellent exercise."

SP1.R2.R1
I think this because, according to the author, "Trampolines provide children with active play."

SP1.R3.R1
I think this because, according to the text, "Trampoline training is important for extreme sports, with skateboarders and snowboarders safely practicing"

SP1.R1.R1.R1a
This shows that trampolines are safe because not only are they safe

SP1.R1.R1.R1b
and fun,

SP1.R1.R1.R1c
they also give you excellent exercise.

SP1.R2.R1.R1a
This all shows that trampolines are definitely healthy because they are providing children with

SP1.R2.R1.R1b
and providing children with healthy exercise.

SP1.R3.R1.R1a
This shows that trampolines are by far healthy,

SP1.R3.R1.R1b
and also helps in training for extreme sports.

Conclusion

Hence, I think trampolines are healthy because, jumping on them is very positive for your healthy, they provide children with active play, and they are wonderful for extreme sports.

Figure 3   Graphical representation of T1's written evidence-based argument

A retired elementary school teacher who was unfamiliar with the design and purpose of the study and the researcher independently coded and graphed the structure of all essays using the above-described process. Training consisted of three one hour sessions during which the rater was taught how to separate students' essays into meaning units, code those units into elements, and then graphically represent the relationship of the elements. Each training session included coding six essays,

discussing the codes, graphically depicting the arguments, and discussing the relationships. The training essays consisted of the essays written by the students who participated in the pilot study to ensure similar argumentative discourses would be utilized that originated from the same controversial issues used during the main study. Discrepancies between raters were discussed at the end of each session. Inter-rater agreement for each argumentative element was calculated by calculating the ratio of agreements to agreements plus disagreements. The rater and researcher then independently coded and graphed six papers on the same topic. These essays were discussed and then a further six essays were evaluated and discussed for reliability. If a structure was coded differently, the two raters talked it over until a mutually satisfactory agreement could be reached for each element. Interrater agreement, calculated using the ratio of agreements to agreements plus disagreements, for the structural analyses was as follows: bridge sentences (100%), standpoint (100%), level two reasons (96%), level three reasons (89%), alternative perspective sentences (96%), and rebuttal sentences (91%).

Quality. Based on the procedures developed by Ferretti, MacArthur, and Dowdy (2000), a primary trait-scoring guide was used to measure overall quality. All essays were scored using a 7-point scale, with 0 representing the lowest score and 7 the highest. The scoring guide directed raters to consider the presence and quality of the argumentative elements contained in the pragma-dialectical theory of argumentation (i.e., the essay stated a clear standpoint about the controversial issue, provided reasons to support the student's standpoint, elaborated their reasons with information that could be convincing, acknowledged alternative standpoints, and provided alternative solutions).

A retired high school English teacher, who was again unfamiliar with the design and purpose of the study, and the researcher independently scored all the essays. Prior to scoring, the rater first received three one hour training sessions that consisted of discussing the primary trait-scoring guide, scoring six essays, and then discussing the ratings. The training essays were again those from the pilot study to ensure similar length, topic, and quality characteristics. Training was deemed to be complete once the interrater reliability between the two raters reached an exact agreement of .80, calculated as the ratio of the number of agreements to the number of agreements plus disagreements. The rater and researcher then independently rated six papers on the same topic. These ratings were discussed and then a further six essays were evaluated and discussed for reliability. If an essay was scored differently, the quality score for a student's written argument was taken to be the average score awarded by the two raters. Table 12 outlines the primary-trait rating rubric (Ferretti et al., 2000).

Table 12   Primary Trait Rating Rubric for Essay Quality

Score	Definition
0 Response to topic	Essay responds to the topic in some way but does not provide a standpoint on the issue.
1 Undeveloped argument	Essay states a standpoint, but no reasons are given to support the standpoint, the reasons given are unrelated to or inconsistent with the standpoint, or they are incoherent.
2 Minimally developed	Essay states a clear standpoint and gives one or two reasons to support the standpoint, but the reasons are not explained or supported in any coherent way. The reasons may be of limited plausibility, and inconsistencies may be present.
3 Somewhat developed	Between the standards for 2 and 4. Meets the criteria for the previous level but does not provide elaboration for each reason.
4 Partially developed	Essay states a standpoint and gives reason(s) to support the standpoint, plus some explanation or elaboration of the reasons. The reasons are generally plausible though not enough information is provided to convince a reader. There may be some inconsistencies, irrelevant information, or problems with organization and clarity.
5 Moderately developed	Between the standards for 4 and 6. Meets the criteria for the previous level but does not include either an alternative standpoint or reasons against it, or is not free of inconsistencies.
6 Well developed	Essay states a clear standpoint and gives reasons to support the standpoint. The reasons are explained clearly and elaborated using information that could be convincing. Mentions alternative standpoint and give reasons against it. The essay is generally well organized and may include a concluding statement. The essay is free of inconsistencies and irrelevancies that would weaken the argument.
7 Sophisticated	Meets the criteria for the previous level as well as dealing with the alternative standpoint either with refutation or presenting alternative solutions. Overall, the argument is convincing.

Percentage of nonoverlapping data. Percentage of nonoverlapping data is a

common method for calculating the effectiveness of an intervention using the results

for single-subject design research (Rogers & Graham, 2008). PND provides a high standard for determining effectiveness of the intervention while also providing a straightforward visual representation of the data. This was performed in order to have an additional index with which to judge the effectiveness of the intervention.

The researcher began by identifying the highest data point in the baseline essays written by each student. For argumentative structure it was the essay with the highest coded units per element (i.e., bridge sentences, level two reasons, level three reasons, alternative perspectives, rebuttals); and for quality it was the essay with the highest overall rating score. Next, the researcher recorded the same information for the essays the student wrote for the three post-instruction and two maintenance probes, a total of five essays. Finally, the researcher identified the data points in the post-instruction and maintenance essays that were above the highest data point in the baseline for that student.

Quantitative outcomes were calculated by computing the proportion of data points that exceeded the preceding baseline data points (Scruggs et al., 1987). Previous comparison of PND scores has suggested that scores of 90% and higher represent highly effective outcomes, scores of 70 to 89% represent moderately effective outcomes, 50 to 69% represent minimally effective outcomes, and scores below 50% represent an ineffective outcome (Scruggs et al., 1987). This means that those target areas that receive higher PND scores provide stronger support for the effects of the writing intervention.

For this study, there were three data points for post-instruction essays and two data points for maintenance essays for each student. When looking at TD2's data points for level two reasons, two of the post-instruction essays contained more level

two reasons than his baseline essays and one of the maintenance essays contained more level two reasons than his baseline essays. The resulting percentage of nonoverlapping data (PND) was thus computed as 2/3 = .67 for post-instruction essays and 1/2 = .50 for maintenance essays. In other words, TD2's PND for level two reasons of 67% would suggest that using traditionally-printed and digital mentor texts to scaffold writing instruction had a minimal effect on the inclusion of level two reasons during post-instruction essays, while a PND of 50% for maintenance essays would suggest an ineffective outcome.

Data analysis for Research Question 2. A single subject case study analysis (Yin, 2004) was used to examine the data for the three students (i.e., TD1, TD2, and TD3) in the traditionally-printed and digital condition. The rationale for using this approach for the three students in the traditionally-printed and digital condition was based on two factors. First, in order to determine how instruction using digital mentor texts impacted students' quality scores, the students had to receive this instruction. The students in the traditionally-printed condition did not meet this condition because they only received instruction using traditionally-printed mentor texts. Second, since there were no significant differences in the writing performance between the two conditions, the results from the data of the three students in the traditionally-printed and digital mentor text condition could be considered representative of the quality changes in both conditions.

Three forms of data were analyzed to gain a deeper understanding of how using both traditionally-printed and digital mentor texts during instruction affected the quality of students' evidence-based arguments. The qualitative data analysis included two essays (one baseline and one maintenance) from each student, along with the

transcripts of the corresponding instructional sessions and the retrospective semi-structured interviews. Instructional sessions were recorded using an audio digital recorder to accurately capture the audio interaction between the instructor and student. Throughout each session, students were encouraged to share their intentional decisions by thinking aloud to facilitate the collection of audio content. The findings were presented in the form of an individual case study analysis (Grossman, 1990; Hall, 2010) to illustrate the specific changes from baseline to maintenance essays (Crowell & Kuhn, 2014) and the possible impact of instruction utilizing both traditionally-printed and digital mentor texts.

Individual case analysis. Data analysis began by identifying one exemplar essay that was representative of the baseline essays from each fifth-grade student in the traditionally-printed and digital mentor text condition. The selected baseline essay was considered to be an exemplar if the three measurements identified during the percentage of nonoverlapping analysis discussed in more detail in Chapter Four, namely length, structure and quality, were close to or equaled the mean score of all the baseline essays (Table 13).

Table 13   Means for Length, Argumentative Structure, and Quality for TD1

Student (Essay, #)	Length	Bridge	Level 2 Reasons	Level 3 Reasons	Alternative Perspective	Rebuttal	Quality
B (3)	257	0	3	5	0	0	4
BE	**271**	**0**	**3**	**4**	**0**	**0**	**4**
PI (3)	349	1.33	6	5.33	3	1.67	6.3
M (2)	356	1	6	6	2	3	7
ME	**313**	**1**	**6**	**5**	**2**	**3**	**7**

Note: B = baseline essay; BE = baseline exemplar essay; PI = post-instruction essay, M = maintenance essay; ME = maintenance exemplar essay.

As the data in Table 13 show, TD1' s baseline exemplar essay (BE) was equal to the mean score for the inclusion of bridge sentences, level two reasons, alternative perspective sentences, rebuttals, and writing quality. The baseline exemplary essay was slightly higher than the mean length and slightly lower than mean level three reasons. This slight difference was considered acceptable since two of the baseline essays contained a higher length and lower level three reasons than the mean level. The same selection process was applied to the maintenance essays. Every attempt was made to ensure the two exemplar essays for each student served as a representative of the students' writing performance across all baseline and maintenance essays.

After the selection process was complete, the qualitative data analysis of the baseline and maintenance exemplar essays began. To begin, the requirements for the highest quality score (a score of 7, representing a sophisticated argument) on the primary trait rating scale (Ferretti et al., 2000) were listed on a spreadsheet to identify the qualities contained in the baseline and maintenance essays. Then, each essay was broken down into three sections (e.g., introduction paragraph, reason paragraphs, and conclusion paragraph) and coded using the *a priori* codes from the primary trait rubric. In order to identify how the student's writing performance improved from baseline to maintenance essay, each section was identified with strengths and specific recommendations to improve the student's argument.

Next, a data analysis of the transcripts from the instructional sessions was performed using open coding (Glaser & Strauss, 1967) by reading each transcript individually to record salient quotes and note preliminary codes. The transcripts of instructional sessions were then coded to identify patterns of active noticing, for example when a student identified a part of the mentor text's content as significant or

made a discovery of an author's intentional writing decision that they then sought to emulate in their own evidence-based argument. After this initial coding was complete, another sweep of the data was conducted to assign descriptive codes to repeated patterns of behavior. For instance, these could be coded as CI (content used to inform), CC (content used to convince), T (transition words), or AP (acknowledging alternative perspectives). Constant comparative methods (Glaser & Strauss, 1967) were then used across all codes to collapse the preliminary codes into categories and identify emerging themes. These patterns of behavior were listed on a spreadsheet in one of two columns: a) active noticing that occurred during the use of a traditionally-printed text or b) active noticing that occurred during the use of a digital mentor text.

Following the coding of the transcripts from the instructional sessions, the retrospective semi-structured interviews were coded for students' awareness of: a) using a mentor text to support their writing process; b) why the mentor text was used; and c) the type of mentor text that was used. Once the initial coding of the semi-structured interviews was complete, a second pass through the data was conducted to identify patterns in the way students used traditionally-printed mentor texts as compared to digital mentor texts.

In order to identify precisely how the use of mentor texts affected students' writing performance on the maintenance essay, findings were triangulated across all three data sources (i.e., the baseline exemplar essay, the transcripts of the instructional sessions and the retrospective interview, and the maintenance exemplar essay) to ensure validity. First, each section (e.g., introduction paragraph, reason paragraphs, and conclusion paragraph) of the maintenance essay was compared to the baseline essay to identify areas of improvement in argumentative structure. Second, the visual

graphical representations of the argumentative structure for the exemplar baseline and maintenance essays were compared to identify the changes in the depth and breadth of each student's essay. Third, this data was matched with coding for active noticing in the transcripts of the instructional sessions and semi-structured interviews. All codes were collapsed to represent single categories that offered an explanation for any improvement observed in the quality score of students' maintenance essays. In this way, the researcher was able to track how patterns in behavior stopped, changed, or remained the same over the course of the six-week intervention.

Triangulation consists of the combination and integration of multiple data sets to support a theme, which verifies findings and enhances the validity of a study (Creswell, 2013). To increase the validity of the study, themes found in the transcripts of instruction were triangulated with student artifacts and retrospective semi-structured interviews.

Summary

The purpose of this study was to investigate the effects of explicit instruction scaffolded through the study of mentor texts on fifth-grade students' ability to write a well-developed evidence-based argument. Data sources included student artifacts (i.e., annotations, graphic organizers, and handwritten essays), typed transcripts of instructional sessions, and retrospective semi-structured interviews. Using quantitative methods, the essays produced by the students (consisting of baseline, post-instruction, and maintenance probes) were analyzed for their essay length, argumentative structure, and writing quality. The results of this data analysis for Research Question 1 are presented in Chapter Four.

In order to identify patterns in the students' writing behavior, a qualitative analysis was conducted utilizing a multi-step process to closely examine the data (i.e. six student essays, nineteen transcripts of instructional sessions, and three transcripts of students' retrospective semi-structured interviews). Codes were revised to reflect a more thorough analysis of the data. Three passes through the data were required to ensure the findings were indeed representative of the writing behaviors of the three fifth-grade students in the traditionally-printed and digital condition. The results of the qualitative data analysis for Research Question 2 are discussed in Chapter Five.

Chapter 4

RESULTS FOR RESEARCH QUESTION 1: QUANTITATIVE ANALYSIS

The purpose of this study was to investigate the effects of explicit instruction scaffolded through the study of traditionally-printed or traditionally-printed and digital mentor texts on fifth-grade students' writing performance of a well-developed evidence-based argument. This chapter presents the results for the first research question, namely whether the way students write evidence-based arguments changes when instruction is scaffolded using traditionally-printed mentor texts as opposed to traditionally-printed and digital mentor texts. The effects of explicit strategy instruction on students' writing performance of an evidence-based argument is considered and the results of the analysis of the baseline, post-instruction and maintenance probe essays produced by the students for this study compared to identify any differences in essay length, argumentative structure, and quality when writing instruction was scaffolded with either traditionally-printed texts alone or with both traditionally-printed and digital mentor texts.

This chapter focuses primarily on the students' writing performance. The data for the mean scores for essay length for the students' essays across all writing probes are presented, along with the results of the percentage of nonoverlapping data (PND) analysis for argumentative structure and quality.

Results

Essay Length

As described in the previous chapter, all essays were typed and corrected for spelling, punctuation, and capitalization to avoid presentation effects that influence a rater but are unrelated to the message conveyed (Graham, Harris, & Hebert, 2011). All words, regardless of spelling, were counted using Microsoft Word's word count application. Table 14 presents the means for word count for the baseline, post-instruction, and maintenance probe essays. The results show that three students increased the length of their essays during post-instruction and four during maintenance. Before instruction, students in the traditionally-printed condition generated essays ranging from 206 to 315 words and students in the traditionally-printed and digital condition generated essays ranging from 186 to 430 words. During the post-instruction phase, students in the traditionally-printed condition showed very little variability, with an overall decreasing trend in length ranging from 172 to 339. Two students in the traditionally-printed and digital condition showed a consistent increasing trend in length from baseline to post-instruction, but the third, TD3, showed a decrease in length, dropping from 430 words at baseline to 233 words at post-instruction. Maintenance data for the probes given three weeks after instruction showed an increase in length for two students in the traditionally-printed condition and two in the traditionally-printed and digital condition. Mean percentage increases for the students were: T1, 7% post-instruction; T2, 24% maintenance; T3, 35% maintenance; TD1, 1% maintenance, and TD2, 10% maintenance. In contrast to the other students, TD 3 showed a slight decreasing trend from 233 words in post-instruction to 221 words at maintenance.

Table 14   Means for Essay Length

Student	Baseline	Post-Instruction	% Increase	Maintenance	% Increase
T 1	315	339	7%	330	0%
T 2	206	172	0%	220	24%
T 3	244	193	0%	296	35%
TD 1	257	341	25%	346	1%
TD 2	186	240	23%	267	10%
TD 3	430	233	0%	221	0%

Structure of Arguments

The pragma-dialectical theory of argumentation was used as a coding system to evaluate the argumentative structure and the relationships among elements from the students' written essays (Lewis & Ferretti, 2011). Each essay was analyzed for the following elements: 1) introduction of the controversial issue; 2) standpoint of main point or position of the student; 3) level one reasons (reasons directly on the standpoint); 4) level two reasons (interdependent with level one reasons, offering supporting evidence); 5) level three reasons (subordinate to level two reasons but with shared values that connect the evidence to the standpoint); 6) bridge sentences (acknowledging both sides of the issue); 7) alternative perspective sentences (recognizing a different point of view with which the student disagrees); 8) rebuttal (potential objections to the alternative perspective, strengthening the student's standpoint); 9) conclusion that summarizes the argument and presents a call to action;

and 10) nonfunctional units (information that is irrelevant to the topic). See Appendix H for a detailed description of each element. After each essay was coded, a graphical representation was constructed to depict its structure. This was done to highlight any changes in the breadth and depth of each student's evidence-based arguments (van Eemeren & Grootendorst, 1992, 2004; van Eemeren et al., 2002). Appendix A presents a graphic representation of two exemplar essays, one baseline and one post-instruction or maintenance, for all six participants.

As previously discussed, two raters, the researcher and a retired elementary school teacher, coded and graphed the structure of all the essays using the procedure described in the previous chapter. Prior to scoring, the two raters reviewed the codes and scored six essays composed by the three fifth-grade students who participated in the pilot study. Interrater agreement, calculated using the ratio of agreements to agreements plus disagreements, for the structural analyses was as follows: bridge sentences (100%), standpoint (100%), level two reasons (96%), level three reasons (89%), alternative perspective sentences (96%), and rebuttal sentences (91%).

The effectiveness of the intervention was determined by calculating the percentage of nonoverlapping data (PND) for each individual essay element. Quantitative outcomes were calculated by computing the proportion of data points that exceeded preceding baseline data points (Scruggs et al., 1987); this study had three data points for post-instruction essays and two data points for maintenance essays for each structural element. PND scores of 90% and higher represent highly effective outcomes, scores of 70 to 89% represent moderately effective outcomes, 50 to 69% represent minimally effective outcomes, and scores below 50% represent an ineffective outcome (Scrugg et al., 1987). Since baseline, post-instruction, and

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maintenance essays for all students in both conditions included an introduction, a standpoint, level one reasons, and a conclusion, they were not included in the PND analysis. Figures 4 – 13 present the PND results for the five argumentative elements (i.e., bridge sentences, level two reasons, level three reasons, alternative perspective sentences, and rebuttal sentences), revealing the variability across baseline, post-instruction, and maintenance essays. The following sections discuss the findings for each of these elements in turn.

Bridge sentences. A bridge sentence provides context about a controversial issue by acknowledging the relationship between two different viewpoints. Skilled writers include bridge sentences to alert the reader that they have considered two different positions. The inclusion of bridge sentences for students trained in the traditionally-printed condition can be seen in Figure 4, none of whom included a bridge sentence in their baseline essays. However, following instruction, all used bridge sentences in their post-instruction and maintenance essays. The PND index for the inclusion of bridge sentences for these students was: T1, PND = 100% post-instruction, PND = 100% maintenance; T2, PND = 100% post-instruction, PND = 100% maintenance; and T3, PND = 100% post-instruction, PND = 100% maintenance. These results suggest that explicit instruction had a highly effective outcome for all participants' inclusion of bridge sentences on both the post-instruction and maintenance essays.
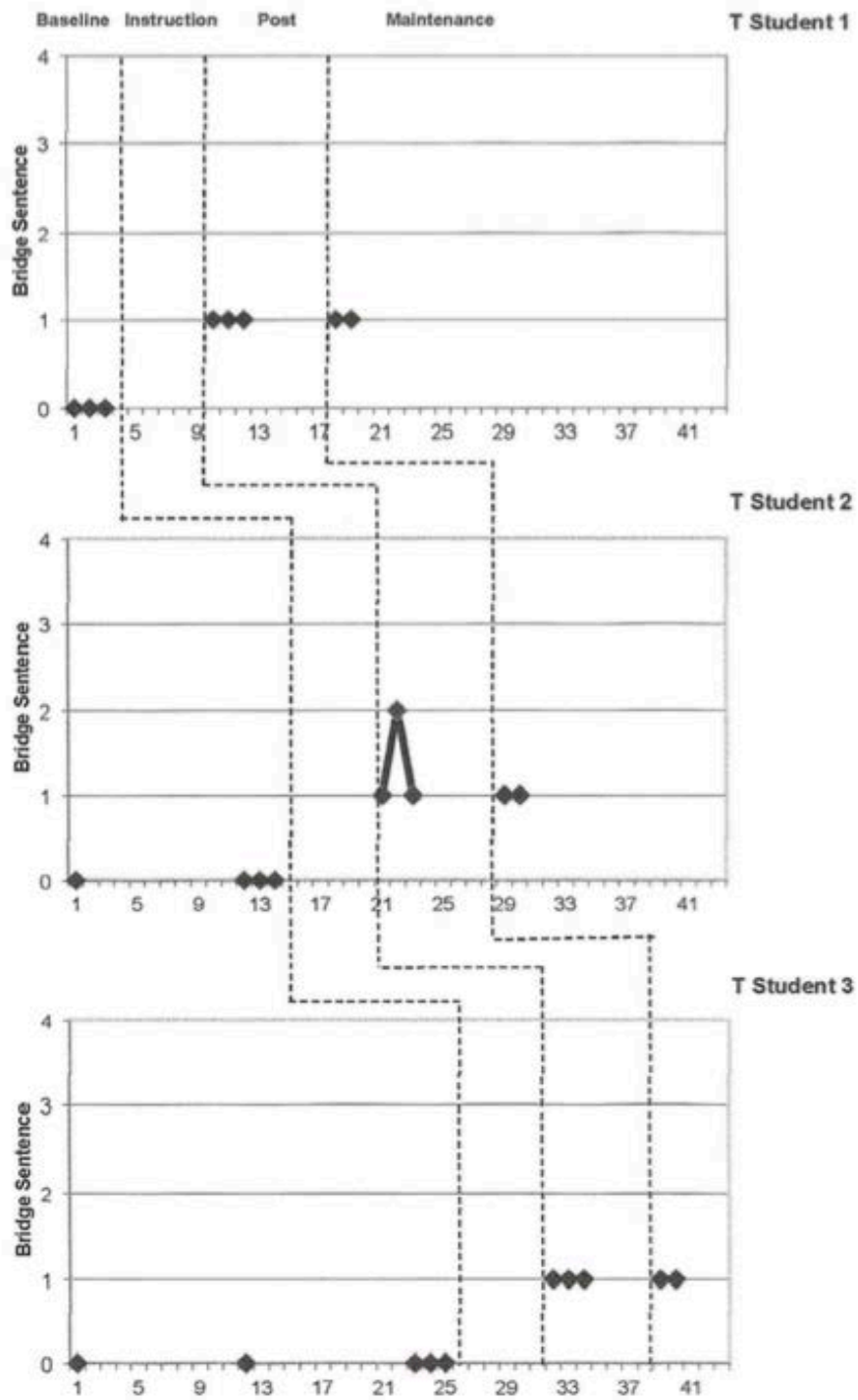
Figure 4   Use of bridge sentences by students in the traditionally-printed condition.

Figure 5 represents the inclusion of bridge sentences for the three students trained in the traditionally-printed and digital condition. Prior to instruction, there was no evidence of bridge sentences in these students' baseline essays. However, following instruction, all three students in the traditionally-printed and digital condition consistently generated bridge sentences in their essays. The PND index for the inclusion of bridge sentences for these students was: TD1, PND = 100% post-instruction, PND = 100% maintenance; TD2, PND = 100% post-instruction, PND = 100% maintenance; and TD3, PND = 100% post-instruction, PND = 100% maintenance. It is clear from this data that explicit instruction had a highly effective outcome for all participants' inclusion of bridge sentences on both the post-instruction and maintenance essays.
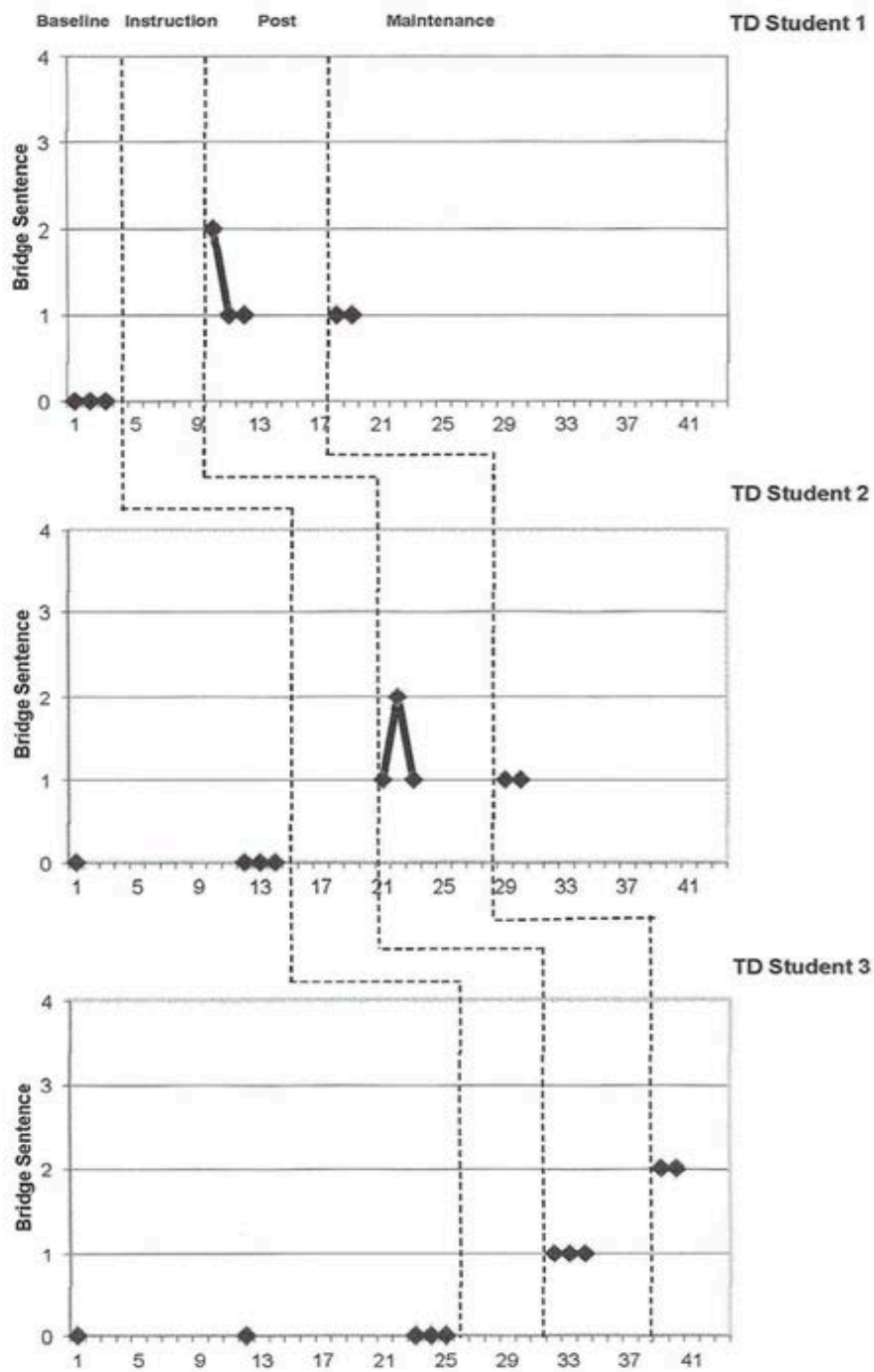
Figure 5   Use of bridge sentences by students in the traditionally-printed and
                digital condition.

Level two reasons. A level two reason is defined as the evidence (i.e., data, facts, or examples) used to explain or support the accuracy of the level one reason. Skilled writers generate level two reasons by using information that is likely to convince a reader that the level one reason is valid. According to van Eemeren & Grootendorst (2004), level two reasons reinforce level one reasons and are therefore considered interdependent propositions. Figure 6 presents the inclusion of level two reasons for the three students trained in the traditionally-printed condition. Baseline performance on the use of level two reasons for these participants was between 3 and 6. The PND index for use of level two reasons for these students was: T1, PND = 100% post-instruction, PND = 100% maintenance; T2, PND = 0% post-instruction, PND = 0% maintenance; and T3, PND = 0% post-instruction, PND = 0% maintenance. This data shows that all the post-instruction and maintenance essays contained at least one level two reason; the results suggest that explicit instruction did not have effective outcomes for all students in post-instruction and maintenance essays.
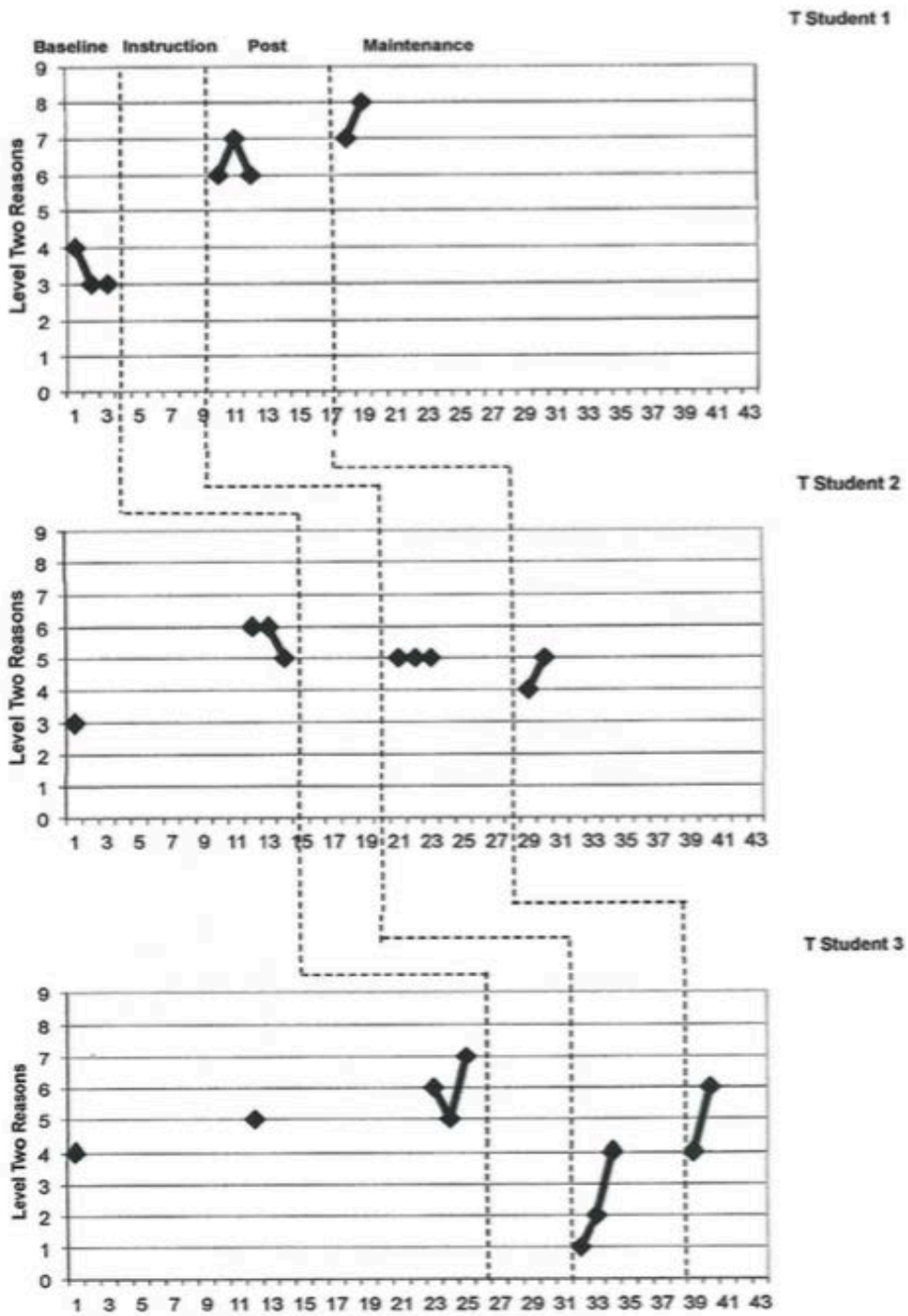
Figure 6   Use of level two reasons by students in the traditionally-printed condition.

The inclusion of level two reasons for students trained in the traditionally-printed and digital condition is shown in Figure 7. Baseline performance on the use of level two reasons for participants in this condition was between 0 and 7. The PND index for use of level two reasons for these students was: TD1, PND = 100% post-instruction, PND = 100% maintenance; TD2, PND = 67% post-instruction, PND = 50% maintenance; and TD3, PND = 0% post-instruction, PND = 0% maintenance. As the data shows, all the post-instruction and maintenance essays contained at least three level two reasons; however, the results suggest that explicit instruction did not have effective outcomes for all students in post-instruction and maintenance essays.
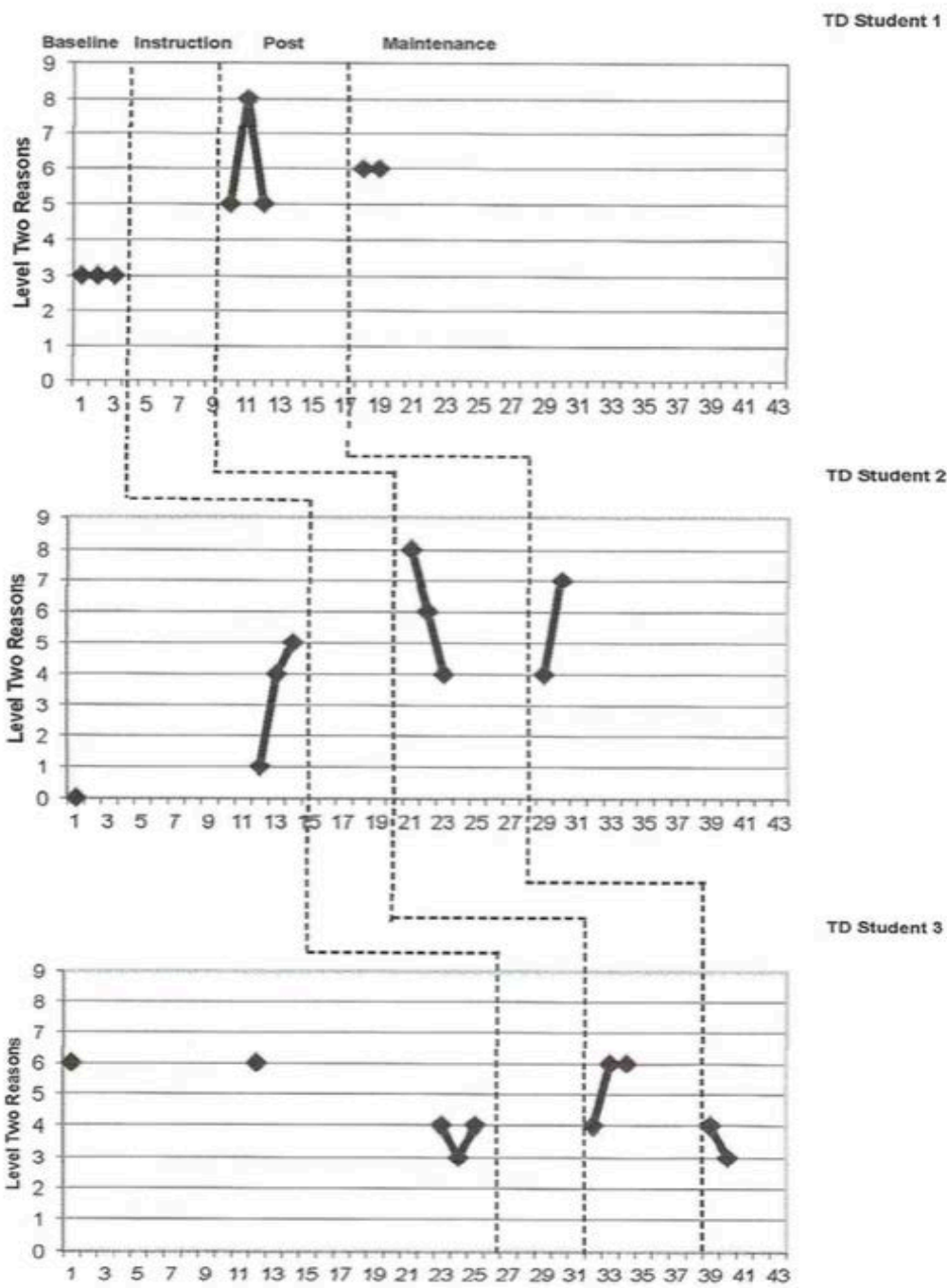
Figure 7   Use of level two reasons by students in the traditionally-printed and digital condition.

Level Three Reasons. Level three reasons are considered subordinate propositions because they support level two reasons (van Eemeren & Grootendorst (2004) by connecting the evidence to the standpoint. Skilled writers who provide level three reasons craft a deep, well-developed argument by describing how the evidence supports the standpoint; in some cases level three reasons clearly identify values shared between the author and the reader. Even though level three reasons are often implied, this element strengthens an argument by explaining how the author determined this connection. Figure 8 represents the inclusion of level three reasons for the three students trained in the traditionally-printed condition. Baseline performance on the use of level three reasons for participants in this condition was between 1 and 7. The PND index for using level three reasons was: T1, PND = 0% post-instruction, PND = 0% maintenance; T2, PND = 67% post-instruction, PND = 50% maintenance; and T3, PND = 0% post-instruction, PND = 0% maintenance. These results suggest that explicit instruction did not have effective outcomes for all students in post-instruction and maintenance essays.
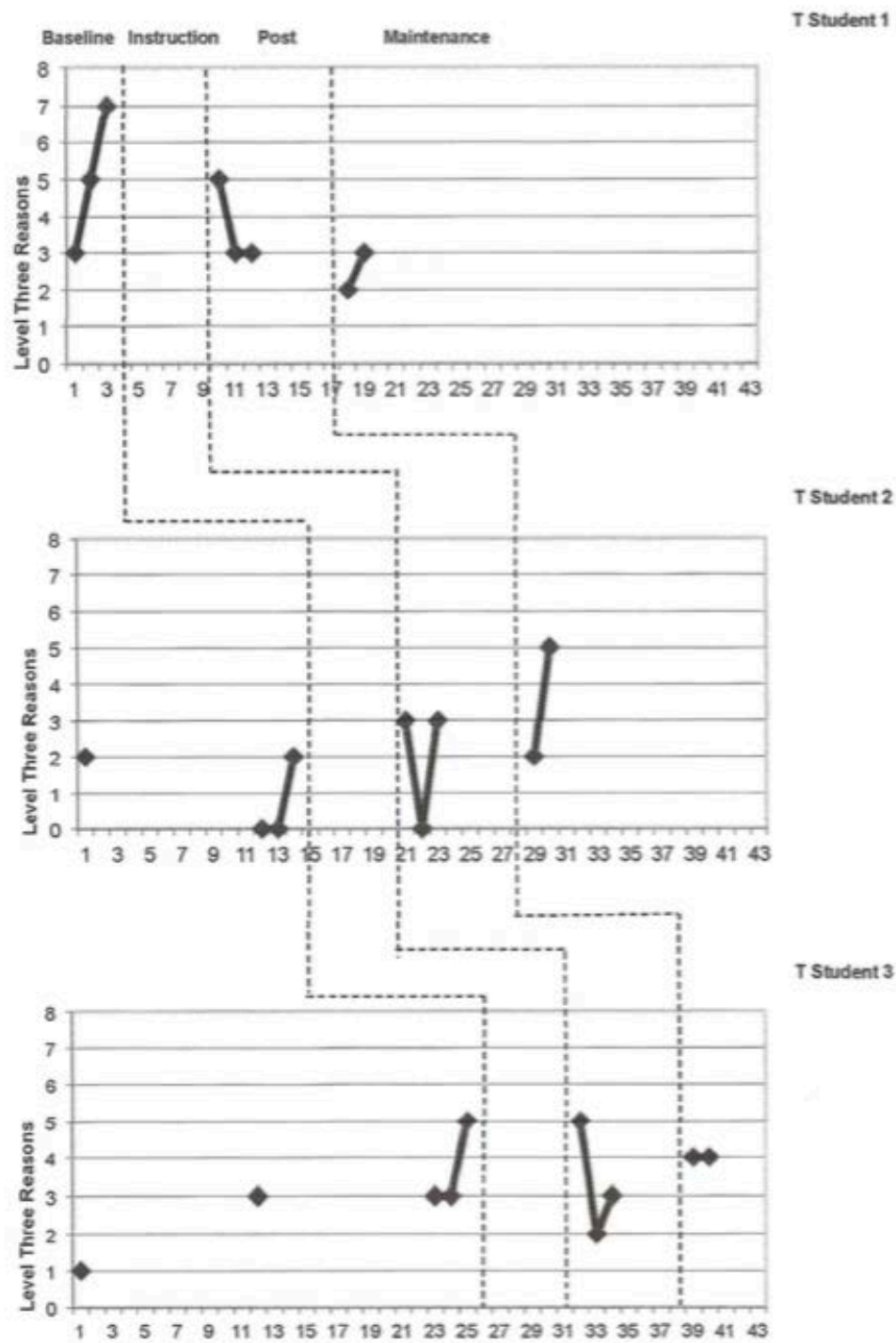
Figure 8   Use of level three reasons by students in the traditionally-printed
               condition.

The inclusion of level three reasons for students trained in the traditionally-printed and digital condition is shown in Figure 9. Prior to instruction, TD1 included level three reasons six times in her second baseline essay, TD2 included level three reasons once during his fourth baseline essay, and TD3 included level three reasons a total of nine times in his fifth baseline essay. After instruction, all the post-instruction essays included at least three alternative perspectives. The PND index for generating level three reasons for these students was: TD1, PND = 33% post-instruction, PND = 0% maintenance; TD2, PND = 100% post-instruction, PND = 100% maintenance; and TD3, PND = 0% post-instruction, PND = 0% maintenance. The data shows that all the post-instruction and maintenance essays contained at least two level three reasons, but only one participant (TD2) consistently increased their use. These results suggest that explicit instruction did not have effective outcomes for all students in post-instruction and maintenance essays.
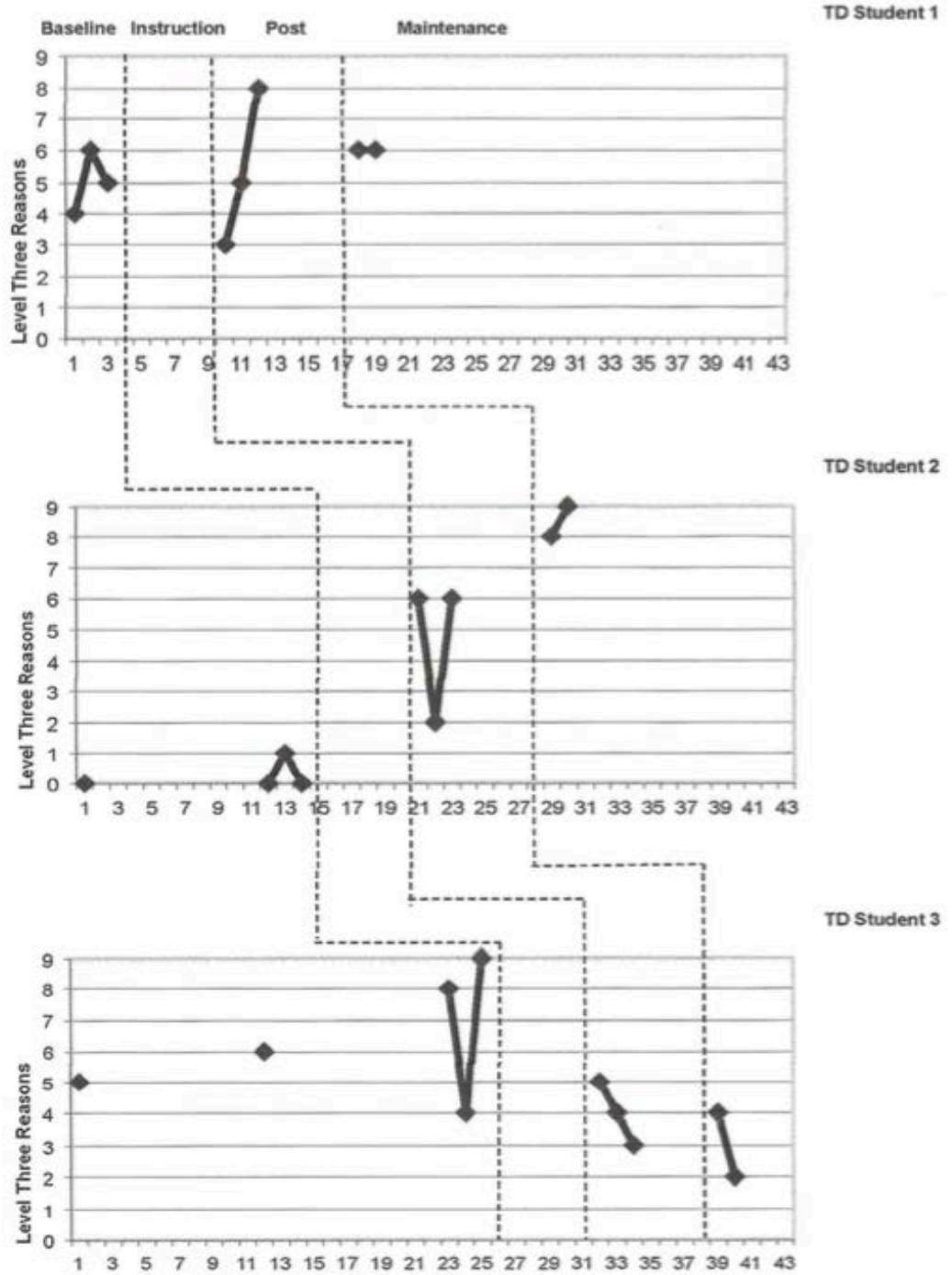
Figure 9   Use of level three reasons by students in the traditionally-printed and digital condition.

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Alternative Perspectives. An alternative perspective sentence recognizes a different point of view with which the writer disagrees and can be located anywhere in the essay, for example as a bridge sentence in the introduction, a counterargument in the body, or a synthesis sentence in the conclusion. An alternative perspective sentence allows skilled writers to demonstrate to the reader that other perspectives have been considered. Figure 10 represents the inclusion of alternative perspective sentences for the three participants trained in the traditionally-printed condition. Prior to instruction, T1 did not use alternative perspective sentences at all, T2 included alternative perspective sentences three times, and T3 included alternative perspective sentences a total of seven times. After instruction, all this group's post-instruction essays included at least one alternative perspective sentence. The PND index for the students in the traditionally-printed condition on the use of alternative perspective sentences was: T1, PND = 100% post-instruction, PND = 100% maintenance; T2, PND = 0% post-instruction, PND = 50% maintenance; and T3, PND = 67% post-instruction, PND = 100% maintenance. This shows that participants in this condition all increased their use of alternative perspective sentences in their maintenance essays. The results suggest that explicit instruction had effective outcomes for the inclusion of alternative perspective sentences on both the post-instruction and maintenance essays for all students in this condition.
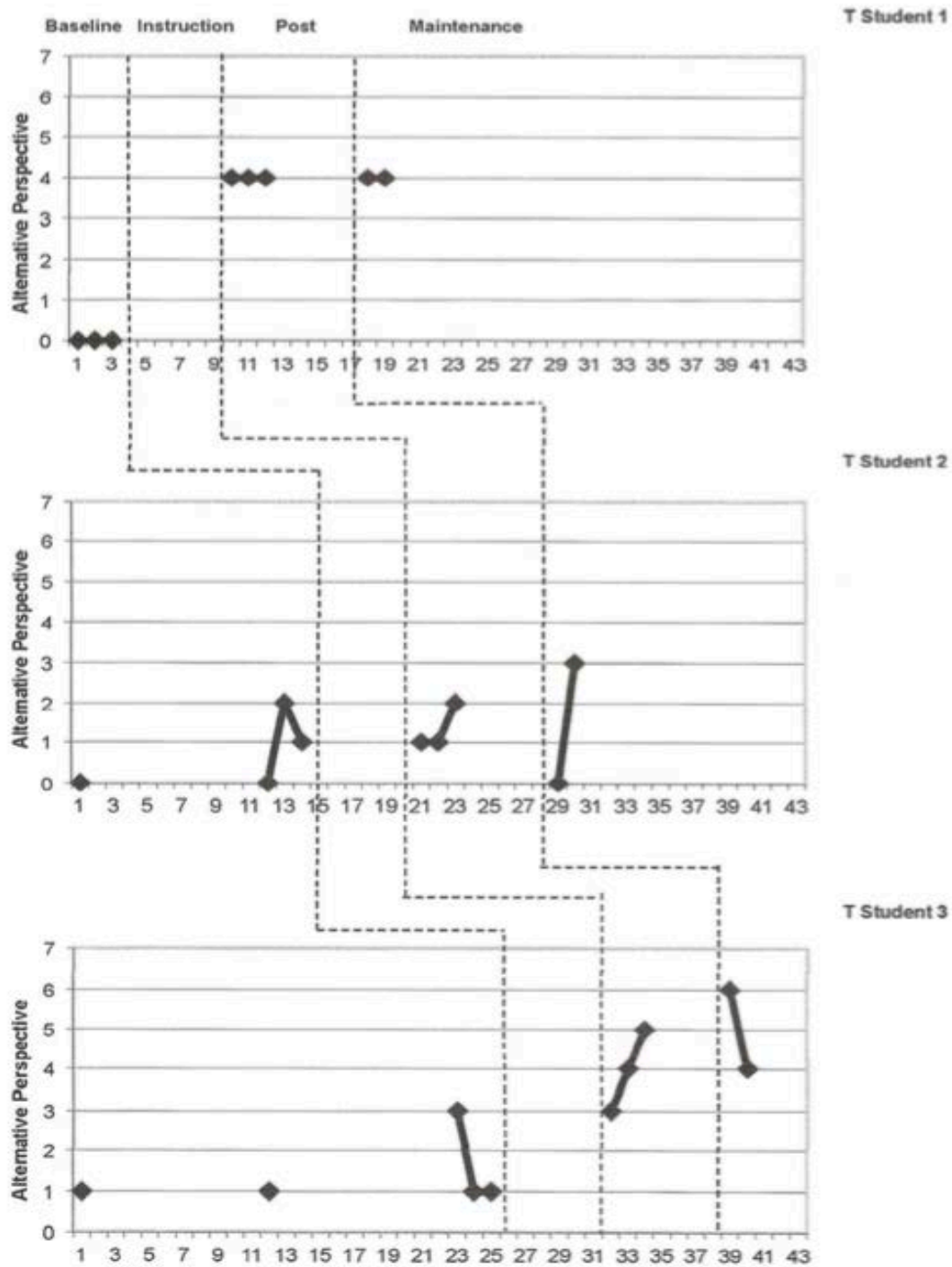
Figure 10   Use of alternative perspectives by students in the traditionally-printed condition.

The inclusion of an alternative perspective sentence for students trained in the traditionally-printed and digital condition is shown in Figure 11. There was no evidence of alternative perspective sentences in the baseline essays for TD1, but TD2 generated alternative perspective sentences on his third baseline essays and TD3 used alternative perspective sentences in all four baseline essays. Following instruction, the three students in the traditionally-printed and digital condition consistently generated alternative perspective sentences in their post-instruction and maintenance essays. The PND scores for their use of an alternative perspective sentence was: TD1, PND = 100% post-instruction, PND = 100% maintenance; TD2, PND = 67% post-instruction, PND = 50% maintenance; and TD3, PND = 67% post-instruction, PND = 100% maintenance. It is clear from the data that explicit instruction had effective outcomes for the inclusion of alternative perspective sentences on both the post-instruction and maintenance essays for all students in this condition.
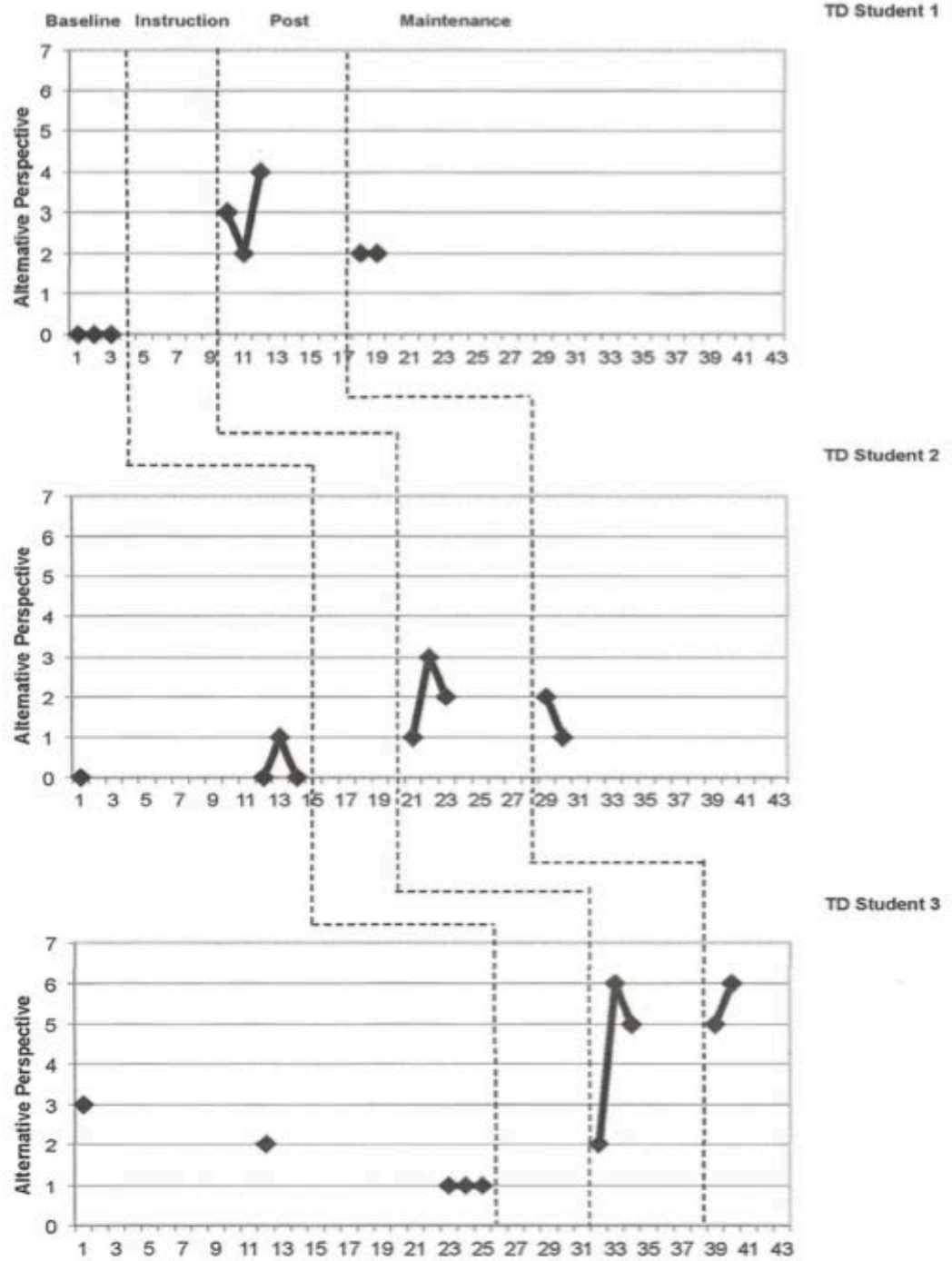
Figure 11   Use of alternative perspectives by students in the traditionally-printed and digital condition.

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Rebuttal. A rebuttal sentence is a potential objection, limitations, or exceptions to the alternative perspective and strengthens the writer's standpoint. Skilled writers use rebuttal sentences to establish why other positions are not sufficient by explaining how their standpoint is the best option. The inclusion of rebuttals for students trained in the traditionally-printed condition can be seen in Figure 12. Although T1 did not use rebuttals at all in baseline essays, T2 included rebuttals 3 times, and T3 included rebuttals a total of 9 times. The PND index for the use of rebuttals for the students in the traditionally-printed condition was: T1, PND = 100% post-instruction, PND = 100% maintenance; T2, PND = 0% post-instruction, PND = 0% maintenance; and T3, PND = 0% post-instruction, PND = 0% maintenance. The data for the students in this condition suggests that the participants did not consistently generate rebuttals in their post-instruction and maintenance essays. These results suggest that explicit instruction did not have effective outcomes for all students in post-instruction and maintenance essays.
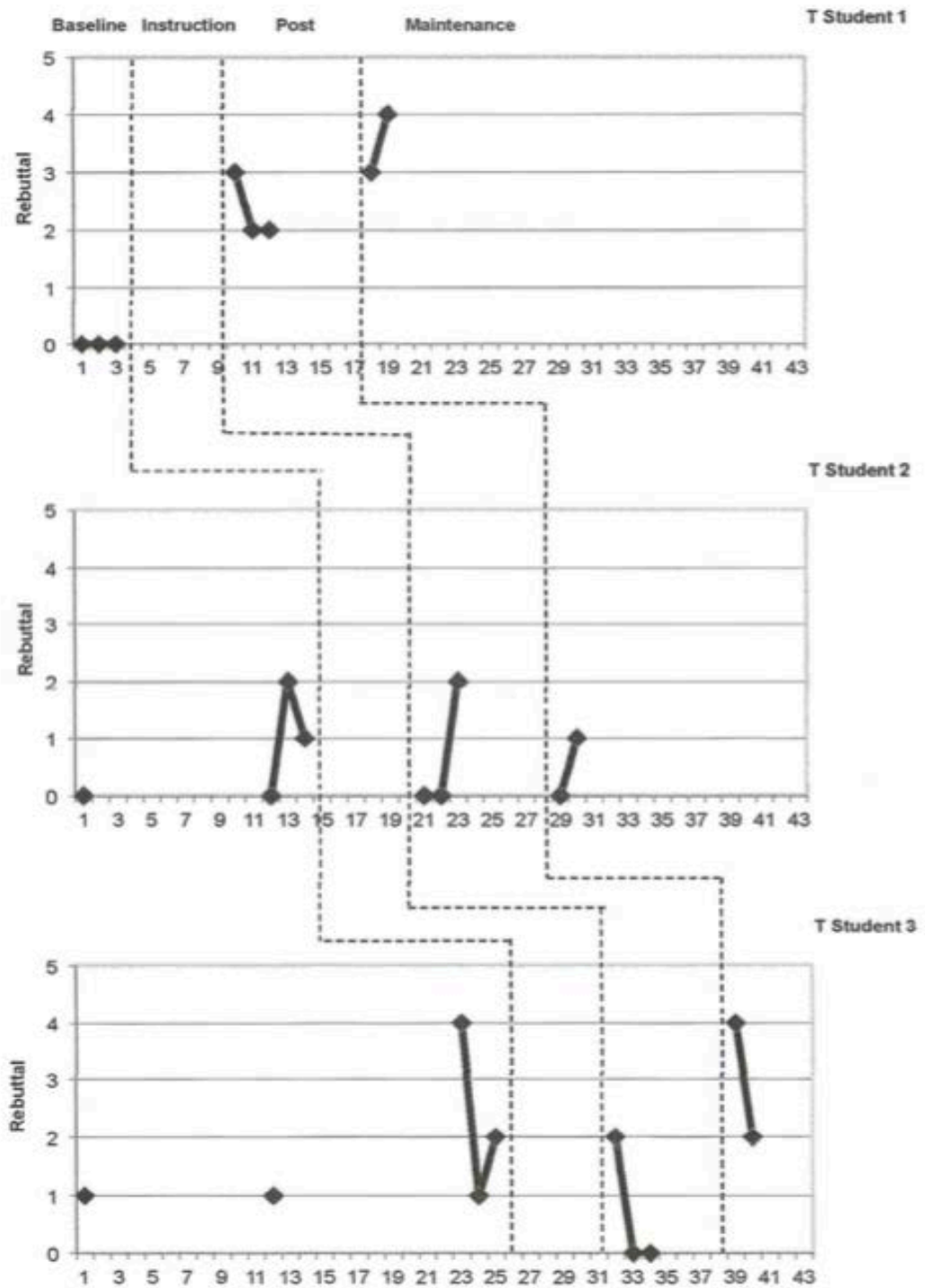
Figure 12   Use of rebuttal by students in the traditionally-printed condition.

Figure 13 represents the inclusion of rebuttals by students trained in the traditionally-printed and digital condition. TD3 was the only student to use rebuttals in his baseline essays, but following instruction, all the students used rebuttals in at least one post and one maintenance probe. The PND index for writing a rebuttal for these students was: TD1, PND = 100% post-instruction, PND = 100% maintenance; TD2, PND = 33% post-instruction, PND = 50% maintenance; and TD3, PND = 67% post-instruction, PND = 0% maintenance. These results show that students in the traditionally-printed and digital condition did not consistently use rebuttals in their post and maintenance essays. These results suggest that explicit instruction did not have effective outcomes for all students in post-instruction and maintenance essays.
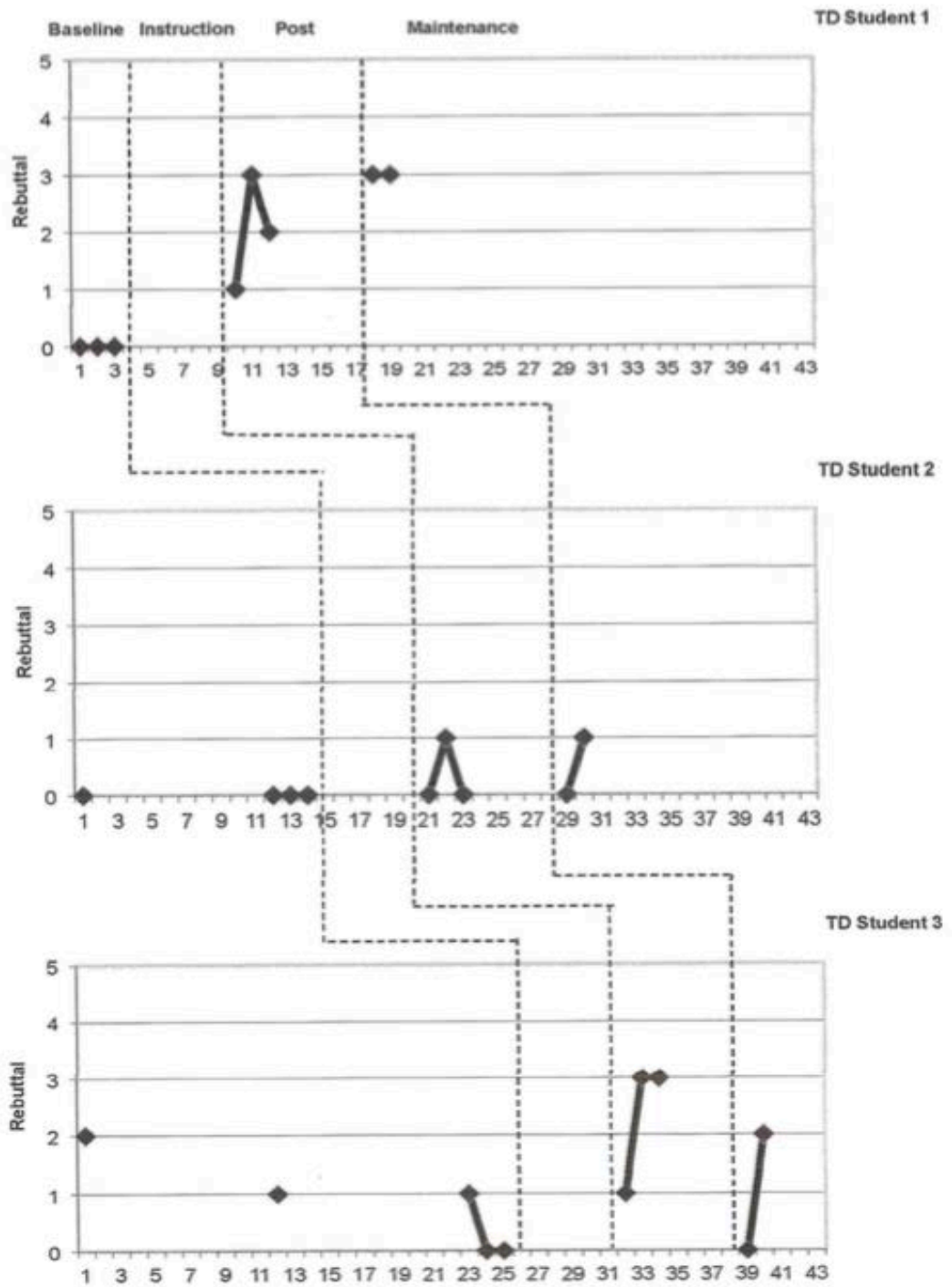
Figure 13   Use of rebuttals by students in the traditionally-printed and digital
condition.

Quality of Arguments

A primary trait rubric was used to rate the writing quality of students'
evidence-based arguments (Ferretti, MacArthur, & Dowdy, 2000). This rating was
based on the presence and quality of the previously discussed structural elements in an
evidence-based argument. Appendix I presents a detailed description of the rubric
used for rating essay quality. The researcher and a retired high school English teacher
rated all the essays according to a 7-point scale, with 0 being the lowest score and 7
being the highest. Prior to scoring, the two raters went through an extensive procedure,
described in Chapter 3, to ensure the interrater reliability was as consistent as possible
using the essays written by the three students who participated in the pilot study.
Interrater agreement between the two raters for writing quality was calculated as the
ratio of the number of agreements to the number of agreements plus disagreements.
Agreement was reached for all but two essays, resulting in a 96% interrater agreement
rate. The PND analysis revealed that the study of mentor texts provided highly
effective outcomes of writing quality for four of the six students for the post-
instruction essays (T1, T3, TD1, TD2) and five of the six students maintenance essays
(three from the traditionally-printed and two from the traditionally-printed and digital
conditions).

Traditionally-Printed Condition. Figure 14 represents the PND data points
for the students trained in the traditionally-printed condition. The quality scores for
their baseline essays were between 3 and 5 on a 7-point scale, but following
instruction the quality scores for all three students increased: T1, PND = 100% post-
instruction, PND = 100% maintenance; T2, PND = 33% post-instruction, PND =
100% maintenance; and T3, PND = 100% post-instruction, PND = 100%
maintenance. The data for the students in this condition suggest that the participants

improved the quality of their written arguments in at least one post-instruction or maintenance essays. These results suggest that explicit instruction had effective outcome for improving the writing quality for all three students in this condition.
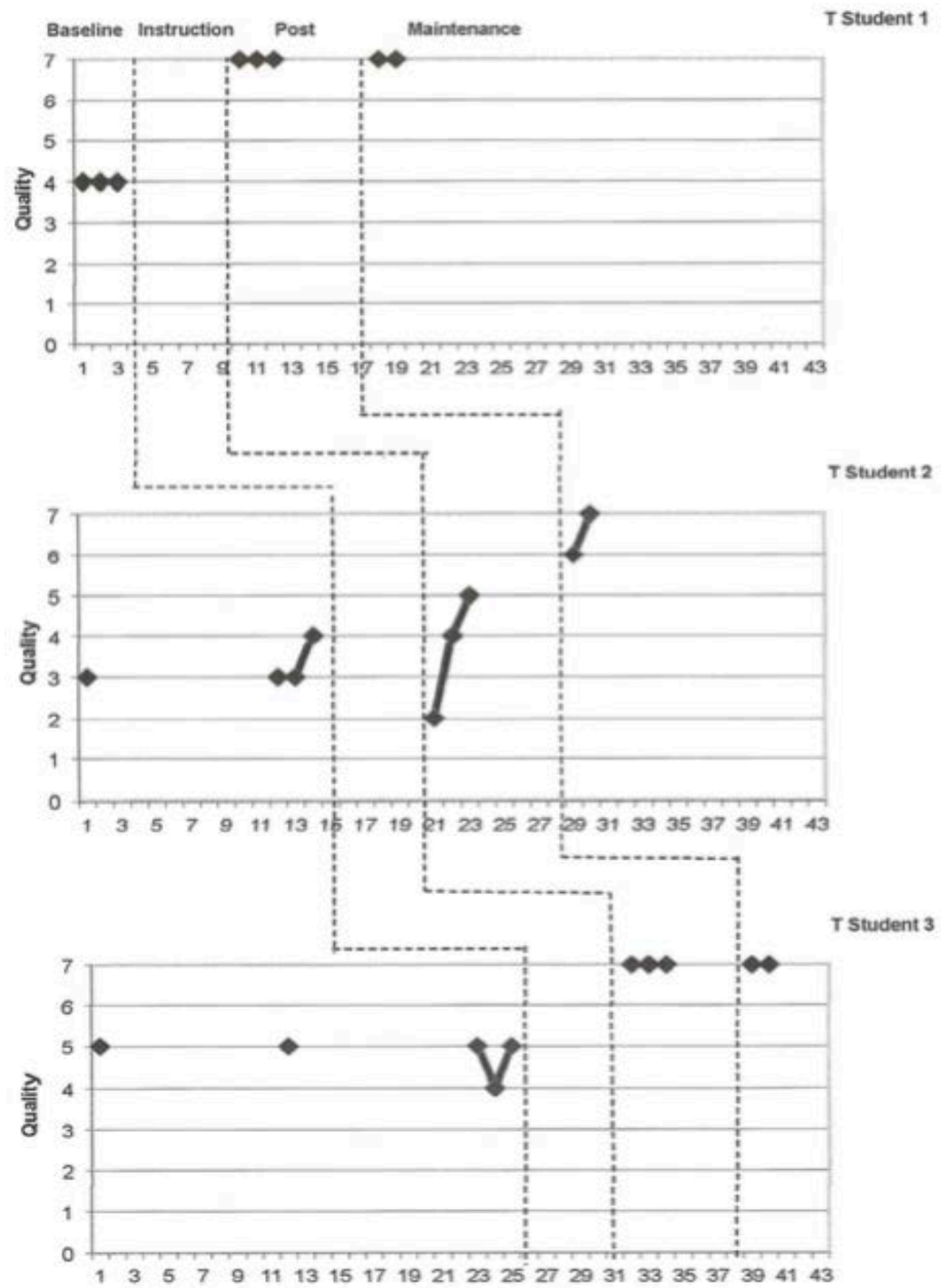
Figure 14   Essay quality for students in the traditionally-printed condition.

Traditionally-Printed and Digital Condition. The quality scores for the students trained in the traditionally-printed and digital condition are shown in Figure 15. The quality scores for the baseline essays ranged between 2 and 6 on a 7-point scale. Post-instruction essays revealed an improvement in writing quality for all the students. The PND index for writing quality for these students was: TD1, PND = 100% post-instruction, PND = 100% maintenance; TD2, PND = 100% post-instruction, PND = 100% maintenance; and TD3, PND = 33% post-instruction, PND = 50% maintenance. The data for the students in this condition suggests that participants improved the quality of their written arguments in at least one post-instruction essay. These results suggest that explicit instruction had effective outcome for improving the writing quality for all three students in this condition.
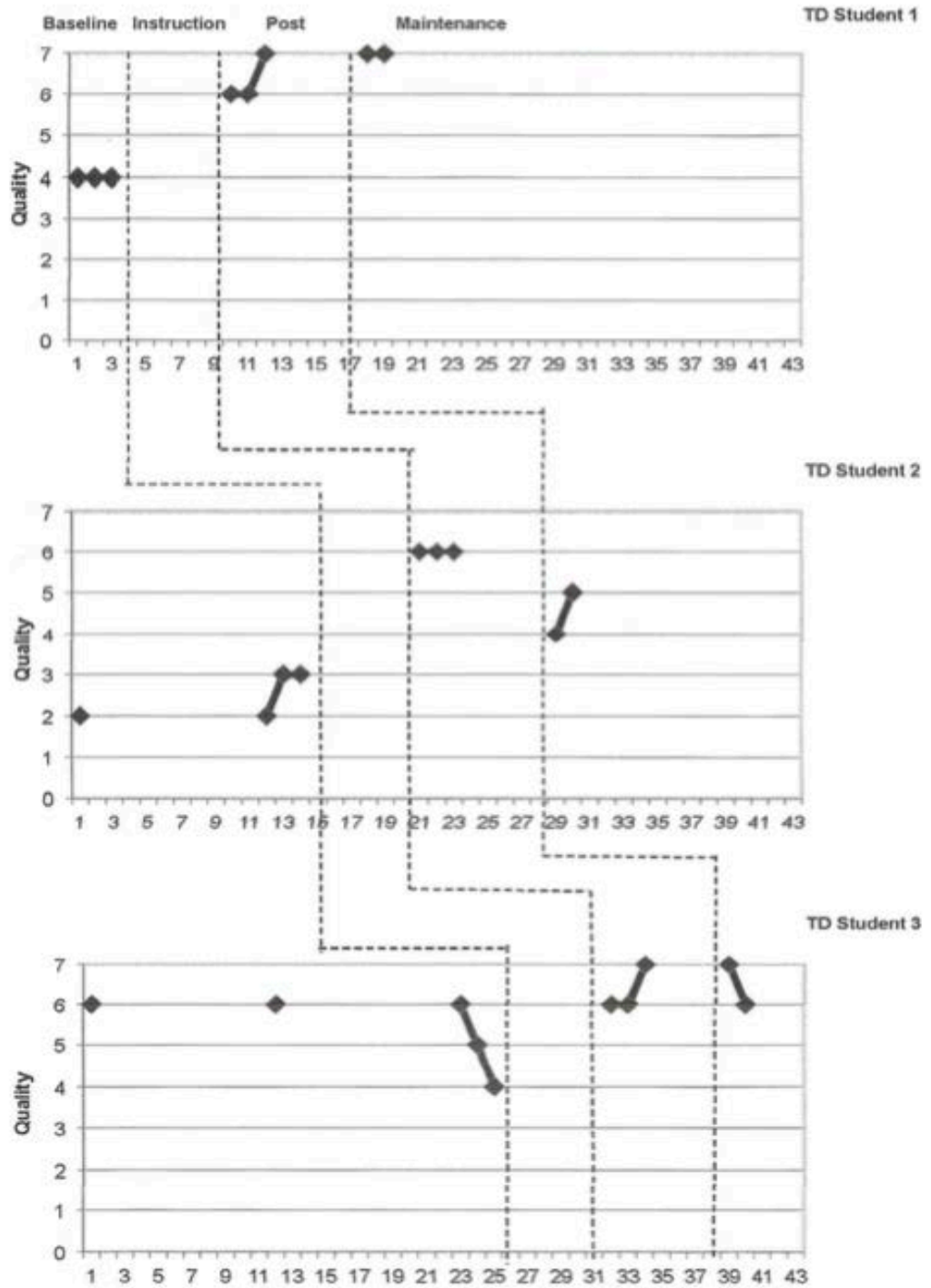
Figure 15   Essay quality for students in the traditionally-printed and digital condition.

Discussion

      This study applied an explicit instructional approach to support fifth-grade students as they studied traditionally-printed or traditionally-printed and digital mentor texts consisting of an introduction to a controversial topic with a clear standpoint; elaborated reasons with evidence to validate that standpoint; and acknowledged alternative perspectives through counterarguments and rebuttals (Toulmin, 2003; van Eemeren & Grootendorst, 1992, 2004). Students in both conditions were taught how to recognize these structural elements in mentor texts by their location within the essay and the role each element played in advancing the writer's argument. The researcher predicted that explicit instruction that directed students to identify the complexity of argumentative structures would have highly effective outcome on students' use of all structural elements in an evidence-based argument (Graham & Perin, 2007b; VanDerHeide & Newell, 2013). Additionally, explicit instruction that used mentor texts for the purpose of teaching students how to recognize an author's intentional decisions to include these structural elements was expected to improve the quality of students' written essays. This hypothesis was developed because instruction for both conditions (i.e., traditionally-printed and traditionally-printed and digital) engaged students in a recursive process of applying their knowledge *about* argumentation to develop a deeper understanding of *how* high quality arguments are written (Pytash et al., 2014; Pytash & Morgan, 2014). However, the researcher also predicted that the essays written by the fifth-grade students in the traditionally-printed and digital mentor text condition would be of higher quality than the fifth-grade students in the traditionally-printed mentor text condition because findings in the literature have demonstrated that the study of digital-mentor texts make the rhetorical decisions of an evidence-based argument more visible to students, helping them emulate these

decisions in their own writing (Green et al., 2015; Howell et al., 2015; Skinner, 2007; Sorapure et al., 2006; Zammit, 2015).

Essay Length

Overall, these findings suggest no significant difference between students in the traditionally-printed condition and students in the traditionally-printed and digital condition. The mean scores for essay length exhibited no significant difference between the two conditions, with all three students in the traditionally-printed mentor text condition and two of the three (TD1 and TD2) in the traditionally-printed and digital mentor condition increasing the length of their essays. Although the data revealed TD3's post-instruction and maintenance essays decreased in word count compared to his baseline essays, their quality improved from baseline to post-instruction probes. Further analysis indicated that this improvement in TD3's post-instruction and maintenance essays was largely due to replacing redundant phrases and functional repetitions with language features that were specific to drawing conclusions from text-based evidence.

Argumentative Structure

The percentage of nonoverlapping data (PND) analysis for argumentative structure revealed a wide range of results, with no significant difference between conditions in that the participants in the traditionally-printed condition did as well as the participants in the traditionally-printed and digital condition. First, the results of the percentage of nonoverlapping data (PND) analysis for argumentative structure implied that all six students increased their use of bridge sentences in both their post-instruction and maintenance essays. The pragma-dialectical structural analysis

revealed that none of the participants in either the traditionally-printed or traditionally-printed and digital mentor text condition used bridge sentences prior to instruction, but after instruction students in both conditions consistently used bridge sentences in their post-instruction and maintenance essays. This finding indicates that explicit instruction scaffolded with the study of mentor texts did indeed have an impact on the writing performance of the fifth-grade students who participated in this study in the area of bridge sentences. These findings are consistent with those reported by previous research, which has demonstrated that when novice writers understand the norms of argumentation they are better able to construct a sophisticated chain of reasoning (Kuhn & Crowell, 2011; van Eemeren & Grootendorst, 2004).

The percentage of nonoverlapping data (PND) analysis for argumentative structure showed inconsistent results for level two and level three reasons, however. While one student (T1) in the traditionally-printed condition and two (TD1 and TD2) in the traditionally-printed and digital condition increased their use of level two reasons, one student from each condition (T3 and TD3) did not increase their use of level two reasons. A different student (T2) in the traditionally-printed condition and the same two students in the traditionally-printed and digital condition (TD1 and TD2) did increase their use of level three reasons, but none of the remaining three students (T1, T3 and TD3) did so. This finding of a wide range of results is consistent with previous research, where it was noted that the impact of explicit instruction is influenced by a number of factors including the use of writing prompts, background knowledge, and developmental readiness for deeper levels of argumentative reasoning (O'Hallaron, 2014; Scardamalia & Bereiter, 1983). Since the results for level two and three reasons range from highly effective to ineffective outcomes, this study is unable

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to conclusively show that explicit instruction scaffolded with the study of mentor texts affected the writing performance of the fifth-grade students who participated in this study in the area of elaborated reasons.

Although the results of the percentage of nonoverlapping data (PND) analysis for argumentative structure demonstrated that all six students in both conditions increased their use of alternative perspective sentences, there were variations in the level of effectiveness. For example, all three students in the traditionally-printed condition increased their use of alternative perspective sentences, but the size of this effect varied considerably, with T1 displaying a highly effective outcome for both post-instruction and maintenance essays, T3 improving from a minimally effective outcome at post-instruction to a highly effective outcome for his maintenance essays, but T2 only displaying a minimally effective outcome on her maintenance essays. Similar results were obtained for the three students in the traditionally-printed and digital condition, with TD1 displaying a highly effective outcome for both post-instruction and maintenance essays, TD2 displaying a minimally effective outcome for both post-instruction and maintenance essays, and TD3 improving from a minimally effective outcome at post-instruction to a highly effective outcome for his maintenance essays. In general, these results appear to suggest that explicit instruction did help the fifth-grade students who participated in the study increase their use of alternative perspective sentences. These results support the conclusion that providing fifth-grade students with explicit instruction may help them develop argumentative reasoning skills that will enable them to anticipate alternative perspectives and then generate counterarguments that convince their readers that their standpoint is valid (Kuhn & Udell, 2003).

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Finally, the percentage of nonoverlapping data (PND) analysis for argumentative structure in the area of rebuttals revealed similar results that did not depend on the condition, with T1 and TD1 displaying highly effective outcomes for both post-instruction and maintenance essays, T3 and TD2 growing from ineffective to minimally effective outcomes on maintenance essays, and T2 and TD3 showing ineffective outcomes for the inclusion of rebuttals. Since the results for rebuttals ranged from highly effective to ineffective outcomes, there is no evidence to support the conclusion that explicit instruction scaffolded with the study of mentor texts affected the writing performance of the fifth-grade students who participated in this study in the area of recognizing the role rebuttals play in convincing the reader. With that said, prior research has suggested that the ability to generate a chain of reasons including counterarguments and rebuttals may be a sophisticated skill that fifth-grade students are not developmentally prepared to produce (Ferretti et al., 2009). However, since four of the six students were able to increase their use of rebuttals, it is possible that the study of mentor texts provided scaffolds that helped these four students manage the higher level of cognitive demands required when writing rebuttals (Howell et al., 2015; Pytash et al., 2014; Pytash & Morgan, 2013).

<div align="center">Quality</div>

The results for the percentage of nonoverlapping data (PND) analysis for quality revealed that the fifth-grade students in both conditions (i.e. traditionally-printed and traditionally-printed and digital) wrote higher quality essays when comparing their baseline and maintenance scores. Three students in the traditionally-printed condition and two students in the traditionally-printed and digital condition had highly effective outcomes on both the post-instruction and maintenance essays,

<div align="center">135</div>

although TD3 demonstrated only a minimally effective outcome for his maintenance essays. Developing both an understanding of the structural components of an evidence-based argument and providing exemplars for students to emulate throughout the writing process were the key components of the intervention's quality gains. Since these results indicate no significant difference between the writing performance of the fifth-grade students in the traditionally-printed condition and those in the traditionally-printed and digital mentor text condition, a qualitative analysis of baseline and maintenance exemplar essays was conducted to identify the ways in which students improved the quality of the writing within their essays. These results will be discussed in Chapter Five.

Conclusions

The effects of the present intervention on fifth-grade students' writing performance for evidence-based arguments indicate that explicit instruction scaffolded with the study of mentor texts has the potential to help them develop argumentative reasoning that includes clear bridge and alternative perspectives sentences. Since the changes in the writing performance of the fifth-grade students who participated in this study were not seen across all participants, this study is unable to make claims that the intervention was effective for the inclusion of level two reasons, level three reasons, and rebuttals. As these results found no clear difference in the writing performance of the fifth-grade students in the two conditions tested, it is not possible to make claims about any effects specific to the type of mentor text (i.e., a comparison of traditionally-printed or digital mentor texts). While students in the traditionally-printed condition increased their use of two structural elements (bridge and alternative perspective sentences) and wrote higher quality essays after instruction, the students in the

traditionally-printed and digital condition were just as likely to increase their use of the same two structural elements and also produced higher quality essays after instruction.

It is important to note that the decision to include traditionally-printed mentor texts in both conditions was due to the fact that students were producing written evidence-based arguments. Prior research suggests that the type of mentor text used in writing instruction needs to emulate the same types of features that the students are being asked to produce (Howell et al., 2015; Pytash et al., 2014; Pytash & Morgan, 2013). Moreover, these results do suggest that the combination of traditionally-printed and digital mentor texts did not hinder the writing performance of the fifth-grade students who participated in this study.

Chapter 5

RESULTS FOR RESEARCH QUESTION 2: QUALITATIVE ANALYSIS

The purpose of this study was to investigate the effects of explicit instruction scaffolded through the study of traditionally-printed or traditionally-printed and digital mentor texts on fifth-grade students' writing performance of a well-developed evidence-based argument. In this chapter, results are presented that address the second research question: how does the use of mentor texts during instruction impact students' writing performance of an evidence-based argument? As discussed previously in Chapter Four, the percentage of nonoverlapping data analysis did not provide results that allowed the researcher to reach firm conclusions regarding the way students improved the quality of their essays other than the observation that students' essays after instruction provided evidence to suggest an increased use of bridge and alternative perspective sentences. This chapter therefore explores these findings in more detail using a single subject case study analysis (Yin, 2004) of the three students (TD1, TD2, and TD3) in the traditionally-printed and digital condition to provide representative data for the quality changes in both conditions.

A qualitative analysis of four forms of data were used to gain a deeper understanding of how both the traditionally-printed and digital mentor texts used during instruction impacted the quality of students' evidence-based arguments. The qualitative data analysis included two essays (one baseline and one maintenance) from each student, along with the transcripts of the corresponding instructional sessions and the retrospective semi-structured interviews. This chapter presents the findings in the

form of an individual case study analysis (Grossman, 1990; Hall, 2010) to illustrate the specific changes between the baseline and maintenance essays (Crowell & Kuhn, 2014) and the possible impact of instruction that used traditionally-printed and digital mentor texts.

Individual Case Analysis

Data analysis began by identifying one exemplar essay representative of the baseline and maintenance essays from each fifth-grade student in the traditionally-printed and digital mentor text condition. The rationale for using these two essays was two fold. First, the selected baseline essay was considered exemplar if the three measurements identified during the percentage of nonoverlapping analysis discussed in Chapter Four, namely length, structure and quality, was equal to or close to the mean score for all the baseline essays (See Table 15 for detailed information).

Second, to explore qualitatively the changes in students' writing performance before and after instruction, the highest rated essays after instruction were selected. For this study, since the students continued to get robust instruction within their classroom, the maintenance essays received the highest scores. Even though the post-instruction essays would have provided evidence of change in the students' writing performance, the maintenance were chosen because they allowed a more in-depth analysis that represented the differences before and after instruction.

Table 15   Means for Length, Argumentative Structure, and Quality

Student (Essay, #)	Length	Bridge	Level 2 Reasons	Level 3 Reasons	Alternative Perspective	Rebuttal	Quality
TD 1							
B (3)	257	0	3	5	0	0	4
BE	**271**	**0**	**3**	**4**	**0**	**0**	**4**
PI (3)	349	1.33	6	5.33	3	1.67	6.3
M (2)	356	1	6	6	2	3	7
ME	**313**	**1**	**6**	**5**	**2**	**3**	**7**
TD 2							
B (4)	186	0	2.5	.25	0	0	2.5
BE	**242**	**0**	**0**	**0**	**0**	**0**	**2**
PI (3)	267	1.33	6	4.67	2	.33	6
M (2)	277	1	5	8.5	1.5	.5	4.5
ME	**283**	**1**	**7**	**9**	**1**	**1**	**5**
TD 3							
B (5)	430	.2	5.2	6.4	1.6	.8	5.4
BE	**384**	**0**	**3**	**3**	**1**	**0**	**5**
PI (3)	268	1	5.3	4	4.33	2.33	6.33
M (2)	234	1	3.5	3	5.5	1	5
ME	**241**	**2**	**4**	**4**	**5**	**0**	**7**

Note: B = baseline essay; BE = baseline exemplar essay; PI = post-instruction essay, M = maintenance essay; ME = maintenance exemplar essay.

In order to identify how the use of mentor texts impacted students' writing performance on the maintenance essay, findings were triangulated across all four data sources (baseline exemplar essay, maintenance exemplar essay, transcripts of instructional sessions, and transcripts of the retrospective interview,) to ensure

validity. First, the introduction, reason paragraphs, and conclusion of the maintenance exemplar essay were compared to the corresponding sections of the baseline exemplar essay to identify areas of improvement in argumentative structure. Second, the visual graphic representations of the argumentative structure for the exemplar baseline and maintenance exemplar essays were compared to identify any changes in the depth and breadth of each student's essay. Third, this data was matched with codes for active noticing in the transcripts of instructional sessions and semi-structured interviews. All codes were collapsed to represent single categories that offered possible explanations for the improvement in the quality score of students' maintenance essays. In this way, the researcher was able to identify at what points patterns in behavior stopped, changed, or remained the same over the course of the six-week intervention.

Results

The data analysis of students' baseline and maintenance exemplar essays, transcripts of instruction sessions, and transcripts of retrospective semi-structured interviews revealed that mentor texts played two important roles in helping fifth-grade students in the traditionally-printed and digital condition improve the quality of their maintenance essay. First, instruction that used mentor texts impacted students' writing performance by providing exemplars (i.e. words, phrases, sentences, or paragraphs) that demonstrated how to generate a chain of reasons that provided information about both sides of the argument and could be used to draw specific conclusions, with the intentional decision of convincing the reader to agree with their position. Specifically, students reported instruction showed them how to utilize rhetorical structures found in the mentor texts that could then be used to organize their arguments so that they could convey a more convincing argument.

Second, the use of mentor texts during instruction impacted students' writing performance by helping students think about their audience and familiarizing students with the intentional decision to proactively anticipate opposition, as evidenced by the following improvements: 1) increased bridge sentence use in the introduction; 2) acknowledgement of alternative perspectives in the reason paragraphs; and 3) providing alternative solutions in the conclusion.

TD1 Case Analysis

During our first session together, TD1 reported that she had a younger sister and she liked to ski. Her favorite subject was ELA because she loved to read fiction books like the Percy Jackson series. TD1 shared that she applied to get into a prestigious private school for girls because she wanted to be challenged academically. TD1's teacher noted she was friendly, happy, and committed to doing her best.

Before instruction, TD1 demonstrated a strong sense of the writing process by generating ideas, erasing for letter/word level edits, and rereading the completed essay for revisions. During the generating process, TD1 used transition words to build the structure of her argument by writing phrases such as "My first reason" and then looking at the writing prompt to select evidence. The evidence she used was in the same order it appeared on the prompt. TD1 was engaged in the editing process while writing the essay. For example, if she was approaching the end of the line while writing a sentence, instead of writing a word on the next line she would change one of the original words to a smaller word so that it fit within the margins. After the essay was complete, TD1 would reread the whole essay, pointing to each word while reading, to identify spelling and punctuation errors.

Findings from TD1's baseline exemplar essay. The pragma-dialectical analysis revealed TD1 was consistently able to produce an evidence-based argument that contained an introduction, standpoint, level one reasons, level two reasons, level three reasons, and a conclusion. At the same time, there was no evidence of bridge sentences, alternative perspective sentences, or rebuttals in any of TD1's essays written prior to instruction. Finally, the quality rating score for TD1's baseline essay was a four, suggesting the essay was partially developed. Her full essay and its visual graphic representation are provided in Appendix B.

TD1's baseline exemplar essay was the first of three baseline essays and was written in response to a writing prompt that required her to build an argument addressing the worthiness of school sports. Qualitative data analysis on TD1's baseline exemplar essay illustrated an understanding of the structural elements and intentional decisions required to write an evidence-based argument. TD1 introduced her argument by providing an imaginary situation likely to be familiar to many fifth-grade students and ended her introduction paragraph by supplying three level one reasons. This showed the reader that TD1 not only had an opinion but was also prepared to defend that standpoint with many reasons.

TD1 organized the next three reason paragraphs with a topic sentence and two supporting detail sentences. All three reason paragraphs included information relevant to TD1's argument that school sports are excellent for students; however, they did little to advance the argument.

In addition, students who play sports are likely to get good jobs and pay as adults. The text states, "Students who play sports tend to get better

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jobs with better pay." This shows me that students will work hard in

sports to get good jobs.

As this excerpt shows, the level two and three reasons used in the paragraph provide information to the reader but do not draw an explicit conclusion. Although her use of quotes provided text-based evidence to support each reason, the lack of alternative perspective and rebuttal statements left the reader wondering if TD1 considered a wider audience.

The conclusion paragraph showed TD1's ability to end her argument with a summary statement that reminded the reader of her standpoint and three reasons.

Findings from TD1's maintenance exemplar essay. The pragma-dialectical analysis revealed TD1 was able to consistently produce all the structural elements required for a well-developed evidence-based essay including bridge sentences, alternative perspective sentences, and rebuttals. Also, the quality rating score for TD1's maintenance essay was a seven, suggesting the argument was sophisticated. The full essay and its visual graphic representation are provided in Appendix B.

TD1's maintenance exemplar essay was the second of her two maintenance essays and was written in response to a prompt about music's role to help or hinder students' concentration while studying. The qualitative data analysis of TD1's maintenance exemplar essay demonstrated the change in her writing performance by including: 1) bridge sentences; 2) rebuttals that clearly addressed the opposing view point; and 3) alternative solutions. First, data from the maintenance essay showed how TD1 improved the quality of her argument by providing information about both sides of the controversial issue of listening to music while studying. For instance, TD1 began the argument by stating a generalized fact that was free of bias but encouraged

the reader to think about how many students actually do listen to music while they study. Additionally, TD1 proactively anticipated opposition through the use of a bridge sentence when she wrote, "Some say that studying with music makes it difficult to focus, but really sometime it just depends on the music type." She ended her introduction by explaining why the type of music was a key factor in this argument. This introduction illustrates TD1's intentional decision to generate a chain of reasons with the goal of convincing the reader to agree with her position.

Second, TD1 improved the quality of her writing performance by dedicating an entire paragraph to addressing the opposition. It is important to note that while TD1 only wrote two reason paragraphs, this third paragraph clearly showed how instruction that used traditionally-printed and digital mentor texts impacted TD1's intentional decision to weaken alternative perspectives through the use of rebuttals, rather than providing generalized reasons that do not draw conclusions. For example, TD1 wrote:

> Some say that listening to music while studying forces the brain to do two things at once. They say this makes it hard to focus, but it can be argued that students who are studying with music do better than in silence. Also, the music may be hard rock, which causes them to not be able to focus. But don't worry, it's a simple fix, just turn on orchestra music on low volume.

This excerpt from TD1's maintenance essay clearly shows a change in her awareness of a wider audience, which allowed her to acknowledge an alternative perspective and then provide rebuttals that weakened the opposing viewpoint.

Third, the analysis of TD1's maintenance essay revealed how she provided support for her standpoint through the use of alternative solution statements. While

TD1's baseline essay concluded with an alternative solution statement, it was inconsistent with her chain of reasons, which weakened her argument. However, in TD1's maintenance essay she provided relevant solutions that aligned with her reasons. Data shows TD1 was able to improve the quality of her writing performance by building a paragraph that mentioned an alternative viewpoint and then gave reasons against it through the use of bridge sentences, rebuttals, and alternative solutions.

Findings from the transcripts of TD1's instructional sessions with traditionally-printed and digital mentor texts. Transcripts of the instructional sessions illustrated ways in which both the traditionally-printed and digital mentor texts improved TD1's writing performance by providing exemplars at the phrase level when crafting bridge sentences. As a result, TD1 began to develop an intentional decision to generate a chain of reasons that provided information about both sides of an argument.

The session began by deconstructing a traditionally-printed mentor text entitled *Milk is Healthy: It Does a Body Good*, which presented an argument for the benefits of milk. During the instructional session, TD1 stated that the traditionally-printed mentor helped her learn "the importance of creating a bridge sentence" by using specific phrases that signaled both sides of the argument. After reading the introduction for the traditionally-printed text, TD1 reflected, "I am going to use 'on one hand' and 'on the other hand' when I write my introduction." This segment of the transcript revealed how the study of a traditionally-printed mentor text supported TD1's composition of an introduction that included a bridge sentence to acknowledge both sides of the argument.

During the same instructional session, TD1 also studied the digital mentor text entitled *Milk: Does it Really Do a Body Good?* Produced by Discovery News, the digital mentor text presented a multimodal argument from the perspective that milk is harmful to many people and therefore made the case that people should drink water instead of milk. Data analysis of the transcripts for this instruction session revealed that deconstructing the digital mentor text required TD1 to move beyond the affordances of words by examining how the author used multiple modes (i.e., visual, oral, written, audio) to convey a compelling argument. It is important to note that the digital argument was paused after each section (i.e., introduction, reason paragraphs, and conclusion) to provide students an opportunity to discuss how the author used evidence to convince the reader that their standpoint was valid. This reciprocal process of watching the digital argument, discussing active noticings, and then rewatching the digital argument helped TD1 generate ideas.

For instance, after watching the digital mentor text, TD1 noticed how the speaker drew the reader's attention to the conclusion of the argument by the way he changed his voice when she stated, "He kind of says that in a way like "Ssooo" to conclude it and then he uses a personal example." The data shows how instruction that used a digital mentor text helped TD1 discover the impact of the word "So" to signal the conclusion of her argument.

At the end of the session, when asked to reflect on how instruction using traditionally-printed and digital mentor text influenced TD1's intentional writing decisions for an evidence-based argument about drinking milk she said, "I liked the digital mentor text to learn information about milk. The traditionally-printed text was written like an essay, so I felt like the traditionally-printed mentor text was more

helpful because it gave me an idea of what I should do first." This reflection shows how engaging TD1 in the process of deconstructing two different mentor texts impacted her writing process.

Overall, explicit instruction, when scaffolded with traditionally-printed and digital mentor texts, familiarized TD1 with the intentional decisions to anticipate opposition through bridge sentences and then use a chain of reasons that acknowledged alternative perspectives.

Findings from the transcripts of TD1's retrospective semi-structured interview. Data from the transcripts of the retrospective semi-structured interview showed how TD1 was able to use both mentor texts to support the writing of her evidence-based argument. In relation to the traditionally-printed mentor text, TD1 recognized how the author intentionally selected evidence that acknowledged alternative perspectives. She explained, "They have the positive and negative information. The negative stuff right here states that outdoor cats are at risk for many diseases. And then they say 'including,' that's a good word to use in your text." This excerpt revealed TD1's awareness of the author's intentional decision to present valid evidence that acknowledged alternative perspectives in order to convey a more convincing argument.

Similarly, TD1 reported the use of the digital mentor text provided validity to the author's argument when evidence was presented through a combination of multiple modes, which influenced her position about cat owners allowing their pets to live outdoors. For example, the retrospective semi-structured interview data provided evidence that suggests TD1 used the digital mentor text to support her generation process when writing a chain of reasons. TD1 explained,

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The video helped a lot though because it helped me understand the argument and got me to think about what I want to put into in my essay. Like in the beginning of the digital mentor text the author used the written mode to say, 'Curiosity doesn't always kill the cat.' So I kind of used that hook in my essay where I said, 'but letting our cats outdoors is good, right?' and I also kind of looked at the evidence that said fast moving cars and trucks are also very dangerous to cats. This evidence got me thinking like, yeah, that is pretty dangerous. My friend's cat got killed by that [a car] and I thought, 'I have a personal connection to that' so I kind of used that as my counterclaim.

TD1's description of her generation process is similar to the process described by skilled writers (Hayes & Flower, 1980) through the recursive process of using mentor texts to generate ideas.

When asked to reflect about her future use of traditionally-printed and digital mentor texts TD1 stated that she planed to use both types to support her writing. When talking about the traditionally-printed mentor text TD1 reflected, "I think that using the mentor text, the traditional one, is actually a little bit easier than the digital text because it is a little more organized. I used transition words like, 'in addition' and 'including' from the traditionally-printed mentor text paragraphs." As for the digital mentor texts, TD1 stated, "The digital mentor text gave good information to understand the argument and [it] used different strategies that you just transferred over into the traditional one." The findings from the transcripts of TD1's semi-structured interview show how instruction that used traditionally-printed and digital mentor texts

empowered TD1 to apply the authors' intentional decisions to her own argumentative reasoning when writing her own evidence-based argument.

Data analysis suggests that for TD1, instruction that used traditionally-printed and digital mentor texts developed both a deeper rhetorical understanding of both *how* to write a more convincing argument that included bridge sentences, rebuttals, and alternative solutions; and *why* it's important for an author to intentionally acknowledge alternative perspectives. These findings were noted across all data sources.

<center>TD2 Case Analysis</center>

At the first meeting, TD2 reported that he was an only child and spent most of his time at his grandmother's house while his mother was at work. In his free time he enjoyed playing football and video games with his friends, as well as playing the cello. His favorite subject was ELA because he liked to read informational texts about history. TD2's teacher reported he was shy and slow to finish classwork.

Before instruction, TD2's generating process began with writing a transitional phrase to start the sentence, followed by reading the prompt to select evidence. There were several behaviors that TD2 repeated while generating his essay that provided more thinking time such as erasing pencil marks, tracing over letters already written, stretching his shoulder, and tapping his pencil. While writing, TD2 would erase letters or whole words in order to correct the spelling. One strategy he used to support his spelling was to look back at the mentor text and copy the word. For revising, TD2 reread the content he had just written and then either wrote more or erased the whole sentence and started over. When TD2 was finished, he turned the essay in immediately, never rereading the whole essay for areas that might need editing.

Findings from TD2's baseline exemplar essay. The pragma-dialectical analysis revealed TD2 was consistently able to produce an evidence-based argument that contained an introduction, standpoint, level one reasons, and a conclusion. At the same time, there was no evidence of level two or three reasons, bridge sentences, alternative perspective sentences, or rebuttals in any of TD2's essays written prior to instruction. Finally, the quality rating score for TD2's baseline essay was a two, suggesting the essay was minimally developed. Appendix B provides the full essay and its visual graphic representation.

TD2's baseline exemplar essay was the second of his four baseline essays, written in response to the prompt that examined the value of school sports as excellent or worthless. The qualitative data analysis of TD2's baseline exemplar essay revealed that it contained few structural elements beyond a standpoint and level one reasons. Even though TD2's introduction consisted of a single sentence, the content in that sentence supplied the reader with enough information about TD2's standpoint and his reasons to support this opinion. It is important to note that while the writing prompt provided evidence to support the reason that playing sports provides students with an opportunity to get exercise, the other two reasons were not listed as evidence in the writing prompt. This suggests TD2 was drawing evidence from his personal experience rather than from text-based evidence.

For the next two paragraphs, TD2 generated a list of random reasons that were not in any logical order. Each reason paragraph began with a transition word and contained five level one reasons. For example, each sentence was coded as a level one reason because it was an independent reason that had not been stated previously in the introduction paragraph:

Another way sports are excellent is that they get to play with their

friends. They also get to play in the tournaments. Lastly, you get a

trophy.

While it might be argued that the final sentence could be coded as a level two reason because getting a trophy is an event that occurs at a tournament, the transition word, "Lastly," suggests getting a trophy was an independent reason for why school sports are excellent. Even though both reason paragraphs included information relevant to TD2's argument that school sports are excellent for students, the lack of elaboration for these reasons demonstrates a belief that personal experience is self-evident, needing no further explanation to convince the reader.

Taking into consideration the random list of reasons throughout the essay, TD2's conclusion is fairly focused because it contained a topic sentence and a supporting detail sentence. Moreover, the conclusion paragraph, while short, showed TD2's ability to end his argument with a summary statement that reminded the reader of his standpoint and two main reasons. Unfortunately, the argument was weakened when TD2 stated he only used two reasons to support his standpoint. In addition, the two reasons he restated in the conclusion were not the two he had given in the introduction. This line of reasoning, while relevant, is confusing because it does not create a clear chain of reasons that begins in the introduction, is elaborated during the reason paragraphs, and is finally restated in the conclusion.

Findings from TD2's maintenance exemplar essay. The pragma-dialectical analysis revealed TD2 was consistently able to produce an evidence-based argument that contained an introduction, standpoint, level one reasons, level two reasons, level three reasons, and a conclusion. Also, there was evidence of a bridge sentence and

alternative perspective sentences in both the maintenance essays written after instruction. Finally, the quality rating score for TD2's maintenance essay was a five, suggesting the essay was moderately developed. See Appendix B for the full essay and its visual graphic representation.

TD2's maintenance exemplar essay was the second of two maintenance essays and was written in response to the prompt about studying while listening to music. The qualitative data analysis of TD2's maintenance exemplar essay provided evidence to suggest instruction that used traditionally-printed and digital mentor texts impacted TD2's writing performance in three ways. First, data from the maintenance essay showed how TD2 improved the quality of his argument by generating a chain of reasons that connected the introduction, reason paragraphs, and conclusion. For example, TD2 introduced the argument with a rhetorical question that served as a hook and a standpoint when he asked, "Did you know that music helps you relax?" Then he wrote three reason paragraphs to support this standpoint by stating that music might help students focus, concentrate, and get higher grades. TD2 concluded his argument with a topic sentence that summarized these reasons and provided a call to action by writing, "So if you're stressed, bored, can't concentrate, and not focused, listen to music!" Overall, these sentences demonstrate a change in TD2's writing performance. Before instruction, TD2's argument contained a random list of reasons and very little elaboration, but after instruction he was able to build a more convincing and focused argument through the use of a chain of reasons.

Second, TD2 demonstrated an awareness of a wider audience by anticipating opposition throughout the essay. To begin, TD2 attempted to write a bridge sentence by acknowledging an alternative perspective in the introduction when he wrote, "Now

if you're already saying it's distracting, I beg to differ." Even though this sentence does not clearly address both sides of the issue, it does show that TD2 recognized that some readers might believe that listening to music is distracting. Next, TD2 continued to anticipate opposition at the end of each reason paragraph by providing a call to action such as, "So if you're bored, turn on some tunes." The data shows how TD2 was starting to acknowledge the alternative point of view by stating that although music may be distracting, boredom is a bigger problem.

Third, data analysis of TD2's maintenance essay provided evidence to suggest that instruction that used traditionally-printed and digital mentor texts scaffolded his writing performance to draw conclusions from the evidence that not only informed but convinced the reader of the validity of his standpoint. While the baseline essay lacked additional evidence to support TD2's claims, the maintenance essay revealed how TD2 was able to elaborate using information that could convince the reader. For instance, in the third reason paragraph he explained:

> Lastly, music is relaxing because it helps you get higher grades. You get higher grades because you're not stressed out. And you're not stressed out because the music calmed you down. And the music calmed you down because you're not bored any more. So if you're stressed, listen to music.

This paragraph is illustrative of TD2's intentional decision to convince the reader of the benefits of listening to music while studying.

Findings from the transcripts of TD2's instructional sessions with traditionally-printed and digital mentor texts. The transcripts of the instructional sessions showed how TD2 used both traditionally-printed and digital mentor texts to

strengthen his writing performance by generating a chain of reasons that provided information about both sides of the issue. The session began by deconstructing the traditionally-printed mentor text entitled *Daylight Saving Time: Worth It*, which presented an argument for the benefits of daylight saving time. Findings from the transcripts from this instructional session offered glimpses into the way the traditionally-printed text provided exemplars at the word level for generating reasons that drew conclusions to convince the reader to agree with their position.

For example, TD2's generation process began by *Reading Like a Writer* to notice how the author used specific evidence to convince the reader. When asked how the author used evidence to support the standpoint that daylight saving time was beneficial, TD2 explained, "I noticed the author used names and numbers because if you just say that you know or if your friends know it's like an opinion but if you actually have evidence it is more believable. I also like the word *advantages*." As a result of this active noticing, TD2 was able to emulate the mentor text to generate a stronger reason paragraph. This excerpt reveals how TD2 intentionally used the traditionally-printed mentor text to stimulate ideas about statistical evidence and utilize persuasive words like "advantage" to convince the reader of the benefits of daylight saving time.

After writing, TD2 described how he relied on the traditionally-printed mentor text to guide his generation process when he stated, "I looked at the mentor text so that I could see what that person was saying and maybe get ideas and I wanted to see, like, how that person organized it and then I thought how I was going to do it in mine." This portion of the transcript shows how the study of a traditionally-printed mentor text supported TD2 as he generated a chain of reasons that drew conclusions with the

intent to convince the reader. At the same time, TD2's statement revealed that he was not familiar with generating this type of reason paragraph, which led him to deconstruct the traditionally-printed mentor text for guidance.

Additionally, TD2 examined the digital mentor text produced by National Geographic entitled *Daylight Saving Time 101*, which used multiple modes of evidence to convince the reader that daylight saving time is disastrous for one's health. The analysis of the transcripts from this instructional session showed how TD2 noticed the author's intent to use visual images, narration, written language, and sound to make the argument more convincing when he stated:

> What she [the narrator] was saying provided information and tied
> everything together. It had pictures, like when it said heart attacks, it
> had like the heart with the lines and then when the narrator said car
> crash, two cars collided. There were sounds and numbers that went
> with the pictures too.

TD2's comment shows how he noticed the author's intentional decision to enhance the evidence of how daylight saving time causes negative health effects by layering meaning with audio, written, and visual modes.

At the end of the instructional session, TD2 was asked to share how instruction using traditionally-printed and digital mentor texts helped him learn how to write a stronger evidence-based argument. He responded:

> They helped me learn how to use evidence in a paragraph. It's not just
> about listing the information. You have to know how to use evidence to
> convince your reader. Like if you use numbers, it is more believable
> than just saying I.

TD2's response clearly reflects a shift in his thinking about how to use evidence to generate a chain of reasons to convince the reader to agree with the standpoint through a reason of value, evidence, and a tie-in sentence.

Findings from the transcripts of TD2's retrospective semi-structured interview. When comparing TD2's evidence-based argument with the retrospective semi-structured interview data, it is clear how instruction that used traditionally-printed and digital mentor texts impacted TD2's writing performance by acknowledging alternative perspectives. First, data analysis showed how instruction using a traditionally-printed mentor text helped TD2 recognize how the elements contained in an evidence-based argument form a chain of reasons. For example, when TD2 was asked to share how he used the traditionally-printed mentor text, he reflected:

> I highlighted the bridge sentence that said, 'Some claim that indoor cats
> suffer from behavior problems and weight gain; however, careful
> owners can easily overcome these issues playing with their cats and
> ensuring indoor exercise,' the transition words [however and instead],
> and the call to action that stated, 'Keeping cats indoors helps to keep
> many animals safe.'

This data shows how TD2's awareness of the elements in an evidence-based argument supported his ability to notice how the author of the traditionally-printed mentor text intentionally acknowledged alternative perspectives in the introduction and drew specific conclusions to convince the reader through a call to action.

Second, the retrospective semi-structured interview data provided evidence that TD2 used the digital mentor text to generate a chain of reasons to convince the

reader. For instance, when asked to report what he had noticed from the digital mentor text, he explained:

> In the introduction they kind of helped you see what side they were choosing like right away when they typed out, 'Curiosity doesn't always kill the cat' and then they said, 'Sometimes it makes the cat a ruthless killer.' And then the last sentence when they said, 'Remember more cats fewer rats,' I guess they were trying to make it rhyme so it stood out.

In this example, TD2's explanation revealed his awareness that an author of an evidence-based argument intentionally connects the introduction and concluding reasons in order to present a stronger argument.

When asked to report the ways in which TD2 would use traditionally-printed and digital mentor texts in the future, he replied, "I would probably watch that digital mentor text first just to get an idea what this one [the argument] would be like. [I would then use] the traditional one because it had a lot more evidence and it had a lot of numbers and studies and it just has a lot more information." In general, TD2's transcripts clarified how instruction that used traditionally-printed and digital mentor texts impacted his writing performance.

It is clear from the data that for TD2, instruction that used traditionally-printed and digital mentor texts supported both a deeper rhetorical understanding of both *how* to produce a stronger argument and *why* an author would state three interdependent reasons to support the standpoint, mention alternative perspectives, and include examples to convince the reader. Each data source for TD2 displayed evidence of these findings.

TD3 Case Analysis

During our first session, TD3 reported that he had a younger brother and liked to play soccer and the cello. His favorite subject was ELA because he felt the teacher was a really good writing teacher. TD3's teacher noted that he was energetic and willing to work hard.

Before instruction, TD3 used the evidence list mainly to plan the introduction. He then used the introduction to guide the generation of the rest of the essay by rereading the introduction before writing each reason paragraph. For example, before writing the second reason paragraph, TD3 reread the introduction to recall his second reason. If his chain of reasoning changed during the writing of the reason paragraph, he would go back to the introduction and edit the message by erasing and rewriting full sentences before stopping to reread the content.

Findings from TD3's baseline exemplar essay. The pragma-dialectical analysis revealed TD3 was consistently able to produce an evidence-based argument that contained an introduction, standpoint, level one reasons, level two reasons, level three reasons, and a conclusion. At the same time, there was no evidence of bridge sentences, alternative perspective sentences, or rebuttals in any of TD3's essays written prior to instruction. The quality rating score for TD3's baseline essay was a five, suggesting the essays was moderately developed. The full essay and its visual graphic representation are shown in Appendix B.

TD3's baseline exemplar essay was the fourth of five baseline essays and was written in response to the prompt about whether trampolines as backyard toys are dangerous or safe. The qualitative data analysis of TD3's baseline exemplar essay revealed that he had a strong sense of the structure of an argumentative essay as it contained an introduction, three reason paragraphs that used text-evidence to support

his standpoint, and ended with a conclusion. He introduced his argument with a rhetorical question and then stated three reasons. The next three paragraphs were coded as reason paragraphs because TD3 clearly restated his standpoint and used several sentences to support and explain how his evidence supported each reason. While TD3 provided elaboration that explained why insurance companies do not cover trampoline injuries, his tendency to repeat the same evidence phrases over and over again weakened his argument.

The second to last paragraph was coded as an alternative perspective sentence because TD3 acknowledged the opposing position by writing, "Even though trampolines are dangerous, some might say that it's good exercise and trampolines provide you with cardiovascular exercise benefits." While TD3 demonstrates his awareness of a broader audience, this sentence seemed out of place. TD3 concluded the argument by restating his standpoint and three reasons.

Findings from TD3's maintenance exemplar essay. The pragma-dialectical analysis revealed TD3 was consistently able to produce an evidence-based argument that contained an introduction, standpoint, level one reasons, level two reasons, level three reasons, and a conclusion. At the same time, there was evidence of bridge and alternative perspective sentences in the essays TD3 wrote after instruction. The quality rating score for TD3's maintenance essay was a six, suggesting the essay was well developed. Appendix B provides the full essay and its visual graphic representation.

TD3's maintenance exemplar essay was the first of his two maintenance essays and was written in response to the prompt about how listening to music may cause students' attention to drift to the music rather than help them concentrate on the study materials. The qualitative data analysis of TD3's maintenance exemplar essay

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provided useful insights into the way instruction that used traditionally-printed and digital mentor texts moved TD3 toward deeper rhetorical reasoning by generating a chain of reasons that drew conclusions and crafting a more convincing argument through the use of a more authoritative voice when acknowledging alternative perspectives. First, data from the maintenance essay showed how TD3 improved the quality of his argument by using a broader range of structural elements through the use of a chain of reasons that drew conclusions. This change in writing practice removed functional repetitions that were evident in TD3's baseline exemplar essay, hence also reducing the overall word count for all his essays after instruction. Although the data revealed TD3's maintenance exemplar essay decreased in word count compared to his baseline exemplar essay, the essays he wrote after instruction showed a better writing quality. For instance, one way TD3 improved the quality of his writing performance was by generating a chain of reasons that drew conclusions. The data show that TD3 had learned how to generate an introduction that contained an unbiased fact, a bridge sentence, elaboration sentences, and a standpoint.

> Music is a nice thing. Some say it is distracting and others think it is relaxing. Some people believe music is distracting because students can't focus. Other people think it is relaxing because it does help students to focus. I believe music is relaxing because it relieves stress.

This excerpt from TD3's maintenance essay clearly shows how he had improved the quality of his argument by replacing rhetorical questions and functional repetitions with a broader range of structural elements like bridge and alternative perspective sentences. As a result, TD3's essay was more convincing due to his intentional

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decision to produce an introduction that acknowledged both sides of the issue and then drew conclusions through a clear standpoint.

Second, data from the maintenance exemplar essay showed how TD3 improved the quality of his argument by using a more authoritative voice when acknowledging alternative perspectives. As a result, his argument was more convincing. While the baseline exemplar essay demonstrated an awareness of audience through rhetorical questions (i.e., Would you want any of those injuries happening to you, because I wouldn't?), the maintenance exemplar essay shows a deeper understanding of how authors intentionally use evidence to support their standpoint. For example, TD3 generated three reason paragraphs that contained a reason of value, evidence from both sides of the issue, and a tie-in sentence that explained how the evidence supported the reason. As a result, TD3's rhetorical thinking advanced beyond the intentional decision to present evidence as a way to inform the reader by using a more authoritative voice when acknowledging alternative perspectives.

Findings from the transcripts of TD3's instructional sessions with traditionally-printed and digital mentor texts. The analyses of data from the transcripts of the instructional sessions indicate two ways in which both the traditionally-printed and digital mentor texts influenced TD3's writing performance with regard to anticipating opposition. First, TD3 developed an intentional decision to formulate a chain of reasons that acknowledged alternative perspectives. Second, TD3 exhibited a deeper understanding of the author's intentional decision to generate evidence that drew conclusions in order to convince the reader.

Transcripts from this instructional session began by deconstructing the traditionally-printed mentor text entitled *Microbeads are Beautiful*, which presented an argument for the benefits of microbeads. The transcripts from this instructional session showed how the traditionally-printed text provided an opportunity for TD3 to discuss an author's intentional decision to convince, rather than inform the reader. This signified a change in TD3's purpose for writing an evidence-based argument.

During the instructional session, TD3 noticed how the author intentionally used a chain of reasons to acknowledge alternative perspectives for the purpose of convincing the reader. As a result of deconstructing the traditionally-printed mentor text, TD3 was able to improve the quality of his writing by generating an introduction that included a neutral fact, a bridge sentence, and a standpoint. This suggests that TD3's writing performance improved through instruction that used a traditionally-printed text by emulating exemplar transition phrases that presented information about both sides of the argument.

Additionally, the instructional session provided an opportunity for TD3 to study the digital mentor text entitled *Microbeads: The Story of Stuff*, which presented a digital argument aimed at changing the way people make, use, and throw away "stuff" to help create a happier and healthier planet. Data analysis of the transcripts from this instructional session implied instruction that used this digital mentor text helped TD3 develop a deeper understanding of how to advance an argument by using evidence that drew conclusions. For example, when asked what TD3 noticed about the author's intentional decision to convince the reader through the use of evidence, he reported:

It is showing how they [microbeads] go through [the water filter] where

they clean the water out into the ocean. So then it [microbeads] acts

like a sponge and catches a lot of toxic stuff. Then fish eat it

[microbeads], get sick and they might end up on your plate.

TD3's description signifies a change in awareness about how an author advances the

argument through the use of five different pieces of evidence. It is important to note

that TD3's baseline exemplar essay showed how he rephrased a single piece of

evidence as a reason, an elaboration, and a tie-in sentence. However, TD3's essay

from this instructional session exhibited an intentional decision to use a broader range

of evidence for the purpose of drawing conclusions to convince the reader that his

position on microbeads was valid.

At the end of the session, when asked to reflect on how instruction using

traditionally-printed and digital mentor text influenced TD3's intentional writing

decisions for an evidence-based argument about microbeads he said, "I feel the video

helped more because it had more effect on you because it showed like how you use it

[microbeads] every day and how the people who make it get a lot of cash and then it

showed you putting the good stuff on the shelf. It was like green good for you." This

reflection shows how engaging TD3 in the process of deconstructing a digital mentor

text impacted his intentional decision to generate a chain of reasons designed to

convince the reader to agree with their position.

Data analysis revealed that for TD3, instruction that used traditionally-printed

and digital mentor texts supported a deeper understanding of both *how* to formulate a

chain of reasons that acknowledge alternative perspectives and *why* an author

generates evidence that draws conclusions. These findings for TD3's writing performance were triangulated across all data sources.

Findings from the transcripts of TD3's retrospective semi-structured interview. Analysis of the data from the retrospective semi-structured interview indicated that TD3 used several different sections (i.e., introduction, evidence, and conclusion) of the traditionally-printed text to scaffold the generation of a chain of reasons that acknowledged alternative perspectives and drew conclusions. In the following excerpt from TD3's interview, he described his process:

> It helped me because I know, like, for my positive and negative information, I used a couple of these and then I came up with some of my own. And then up here for the introduction, the topic sentence, it gave me a couple of ideas, like, if you want a hook, a definition, ask a question, or a fact. Then for the bridge I used that 'some people think' and 'others think.' Then the claim sentence was helpful because it explained it like 'I believe because.'

This excerpt from TD3's interview reveals that as he deconstructed the traditionally-printed mentor text, he strategically selected examples to support the generation of a chain of reason that acknowledged alternative perspectives.

By itself, the following passage from TD3's retrospective semi-structured interview does not reveal his whole writing process, but it does highlight the difficulty he had when trying to use rhetorical reasoning that used a broader range of evidence. When asked to describe the process he used while writing an evidence-based argument about pet owners letting their cats live outdoors, TD3 shared:

> TD3: I had to think it through a little longer than usual.

Researcher: Why is that?

TD3: Because I never really like thought of this way of like putting this stuff in it and so I think it through a little longer.

Researcher: So after you came up with your topic sentence then what did you do?

TD3: I switched it up a little so then it wouldn't sound the same when I explained it so I switched the words up a little. I added that cats should be indoors, say if cats get into a fight they could develop an infection but if cats are outdoors they can express themselves better.

In this passage from his interview, TD3 describes both the challenge of writing without functional repetition phrases (for example, "This shows that…") and his intentional decision to replace repetitive evidence phrases ("cats can express themselves outdoors"), revealing how the traditionally-printed mentor text scaffolded his writing process. As a result, TD3 revealed his intentional decision to acknowledge alternative perspectives after he understood how to use a broader chain of evidence to convince the reader that his standpoint was valid.

Second, TD3's description of his writing process in the transcripts of the retrospective semi-structured interview offered a glimpse into the ways that instruction that used traditionally-printed and digital mentor texts impacted his writing performance to formulate a chain of reasons that acknowledging alternative perspectives. This is important given that both types of texts convey meaning in a variety of ways. For example, TD3 described how he studied the digital mentor text to understand how the author intentionally used evidence that drew conclusions, explaining:

I noticed the author is claiming that cats should be outdoors because

they adventure a lot and they kill rats and stuff. I liked the phrase that

they used "in a study" and that they used numbers, and they gave some

examples to really hit home how many animals they are killing outside.

TD3 appeared to be engaged in a dual meaning making process that included

identifying the author's argument while noticing how the author intentionally used

visual images, written language, and narration to make the argument more convincing.

This was evident in TD3's explanation of how the digital mentor text provided validity

to the author's argument when evidence was presented through a combination of

multiple modes, which influenced his position on the argument:

So the visual mode had the most effect on me because the picture of the

cat with it's tongue sticking out really looked like the cat was going to

eat the mouse and the video showed the cat walking on the railing, like

it was adventurous. The typing in the beginning said like the killer cat

and that means that cats would kill rats and stuff. And then the oral said

that it was a National Geographic study, which made me believe it.

This excerpt revealed that as TD3 deconstructed the digital mentor text he

intentionally engaged in noticing the argumentative structural elements, as well as

engaging in a multimodal meaning making process. This combined approach to

noticing the author's intentional decisions to make the evidence-based argument more

convincing was also noted across all transcripts of instructional sessions.

Data analysis suggests that for TD3, instruction that used traditionally-printed

and digital mentor texts supported a deeper understanding of both *how* to formulate a

chain of reasons that acknowledge alternative perspectives and *why* an author

generates evidence that draws conclusions. These findings were consistently evident throughout TD3's data sources.

When asked to reflect on the future use of traditionally-printed and digital mentor texts to scaffold his writing process, TD3 stated that although he planned to use both, he felt that the traditionally-printed mentor text provided a clearer organization of the argumentative structure. For example, TD3 explained, "I can highlight information and get some sentence starter ideas." Moreover, TD3 reported the digital mentor text provided a stronger persuasive argument because the multiple modes helped him see real examples, hear the tone of the people speaking, read the writing on signs, and listen to music that made him feel relaxed. It is important to note that TD3 reported having difficulty transferring the emotional reaction he felt while watching the digital mentor text into a written evidence-based argument. This suggests that more explicit instruction may be needed to help students transfer the meaning they make from multiple modes into written language.

In general, the data shows how instruction that used traditionally-printed and digital mentor texts moved TD3 toward a deeper rhetorical reasoning of both *how* to produce an argument that contained a broader chain of reasons that drew conclusions and *why* an author would use an authoritative voice when acknowledging alternative perspectives.

Conclusion

According to van Eemeren & Grootendorst (2004), a mentor text can serve as a useful scaffold to guide students in the identification of the structural elements required for a well-developed argument. Findings from the independent case analysis (Grossman, 1990; Hall, 2010) suggest that the key components of the intervention's

quality gains are based on explicit instruction that used mentor texts to scaffold students' understanding of the structural components of an evidence-based argument and an increased awareness of audience. The analyses of students' baseline and maintenance exemplar essays, transcripts of instruction sessions, and transcripts of retrospective semi-structured interviews revealed that mentor texts played a crucial role in helping the students generate a convincing argument by: 1) increasing bridge sentence use in the introduction that acknowledged two different sides of the issue; 2) anticipating opposition through the use of evidence that acknowledged alternative perspectives in the reason paragraphs; and 3) providing alternative solutions in the conclusion to show the reader how to resolve the issue.

These findings are consistent with research that suggests that actively noticing these structural elements and intentional writing decisions provides a supportive environment that enables students to develop a deeper understanding of how a well-developed argument is written (Pytash et al., 2014; Pytash & Morgan, 2014). Explicit instruction that used traditionally-printed and digital mentor texts during instruction improved the quality of students' writing performance by encouraging them to include the elements that they had noticed in the mentor texts. As a result, the fifth-grade students in the traditionally-printed and digital mentor text condition were all able to improve the quality of their evidence-based arguments, as evidenced by their ability to write a more convincing argument that included bridge sentences, alternative perspective sentences, and a call to action.

Chapter 6

DISCUSSION AND IMPLICATIONS

This study builds on research examining the need for explicit instruction in both evidence-based argumentation and multimodal meaning making in order to prepare students for academic standards and the changing landscapes of multimodal texts in the 21st century (Ferretti & Lewis, 2013; Jewitt, 2008; Karchmer-Klein & Shinas, 2012; Leu et al., 2013; Mills, 2010; Werderich et al., 2016). It provides insight into the way explicit cognitive strategy instruction, when scaffolded with the study of traditionally-printed and digital mentor texts, supported students' writing process as they constructed an evidence-based argument.

The findings from this study responded to two research questions: 1) What are the differences in the way students write an evidence-based argument when instruction is scaffolded using traditionally-printed mentor texts as opposed to traditionally-printed and digital mentor texts; and 2) How does the use of mentor texts during instruction impact students' writing performance of an evidenced-based argument? These questions are especially important given the significance of argumentation in the *Common Core State Standards* (NGA & CCSSO, 2010), the fact that academic success can be predicted by students' ability to write a strong argument (Preiss et al., 2013), and the increasing role of digital literacy in today's society, which requires students to be fluent across a wide range of literacies and multimodal meaning making (Cope & Kalantzis, 2010; Kress, 2010; Leu et al., 2013).

The findings from this study are framed in relation to the theoretical perspectives of social constructivism and multimodality. Therefore, this research adds to the literature in two ways. First, this study expands explicit writing instruction to include meaning making from a number of different modes. Second, this research expands the study of mentor texts by including both traditionally-printed and digital multimodal forms of evidence-based argumentation. While there is a growing body of research investigating the use of traditionally-printed mentor texts (Graham & Perin, 2007a; Knudson, 1989; Pytash et al., 2014), studies grounded in the theory of multimodality specific to digital mentor texts are just beginning to emerge (see, for example, Howell et al., 2015; Rish, 2012; Werderich et al., 2016; Whithaus, 2012).

Pytash et al. (2014) argued that deconstructing traditionally-printed mentor texts as a part of the writing process can be a valuable tool for scaffolding writing instruction. In this study, the data analyses revealed that for all six of the student participants, traditionally-printed mentor texts played a critical role in the way they understood the structural components of an evidence-based argument, as well as helping them to begin to identify the complexity and nuances of argumentative writing (Graham & Perin, 2007b; VanDerHeide & Newell, 2013). The quantitative analyses of students' baseline, post-instruction, and maintenance essays revealed an increased use of bridge and alternative perspective sentences after instruction. This suggests that engaging students in a recursive process of noticing what the author said and how the author said it provides students with a method for applying their knowledge *about* argumentation to develop a deeper understanding of *how* effective arguments are written (Pytash et al., 2014; Pytash & Morgan, 2014). As a result, the study of mentor

texts is a universal skill that students can apply across both school and workplace contexts to learn how to write at higher levels of proficiency.

This study found no differences in the way students write evidence-based arguments when instruction is scaffolded using traditionally-printed mentor texts as opposed to both traditionally-printed and digital mentor texts. Moreover, the increased quality of students' writing performance after instruction indicates that the use of traditionally-printed and digital mentor texts to scaffold writing instruction about evidence-based argumentation provided opportunities for students to make meaning from a wide variety of modes. The theoretical framework of social constructivism may support these claims (Englert et al., 2006; Vygotsky, 1978) in that both explicit instruction and scaffolding appear to be necessary components of effective instruction to help students master culturally and socially constructed sign systems that incorporate oral, written, visual, and audio modes. By engaging students in the process of deconstructing both traditionally-printed and digital mentor texts, students were encouraged to discuss the intentional decisions an author makes throughout the writing process to convey an effective argument.

In general, instruction that used mentor texts improved the quality of students' writing performance by developing an understanding of *how* to generate a chain of reasons that provided information about both sides of the argument and *why* authors intentionally anticipate opposition in an evidence-based argument. For example, multimodality describes the ways that people make meaning from available modes with the goal of conveying a coherent message (Kress, 2003; 2010). While instruction that used mentor texts appeared to improve the quality of all six students' writing performance through an increased use of bridge and alternative perspective sentences,

the use of digital mentor texts also provided the three students in the traditionally-printed and digital condition an opportunity to develop multimodal meaning making skills. Two types of multimodal meaning making were noted across the transcripts from the instructional sessions and retrospective semi-structured interviews. First, instruction emphasized that each mode multiplies the possible meaning that can be made (Lemke, 2005). Data from both sets of transcripts revealed how students noticed the author's intentional decision to make the argument more convincing by layering meaning with audio, written, and visual modes.

Second, instruction acknowledged that all modes have the potential to carry meaning and that modes have certain affordances, or meaning potential (Kalantzis & Cope, 2012; Jewitt, 2008; Unsworth, 2008). Findings from the transcripts of the instructional session data showed that students noticed how the author intentionally used: 1) the visual modal affordance of color (i.e., green or red) to label evidence as either positive or negative; 2) the oral modal affordance of pitch (i.e., high or low) to make sure the reader paid attention to particular elements of the evidence; 3) the written modal affordance of font size (i.e., lower or upper case) to convey emotion; and 4) the audio modal affordance of pace (i.e., fast or slow music) to heighten the reader's sense of urgency.

Overall, it is evident that the six fifth-graders who participated in this study all benefited from explicit instruction that used traditionally-printed or traditionally-printed and digital mentor texts. Importantly, these findings suggest that the students developed a deeper understanding of how to generate a chain of reasons that included the structural components of a well-developed essay, as well as the intentional decision to proactively anticipate opposition while writing an evidence-based essay.

Limitations

Given the exploratory nature of this study, the results of this research should be considered in light of several important limitations. The first limitation is related to the design of the study. The traditionally-printed and digital condition included both traditionally-printed and digital mentor texts. While the qualitative analyses suggest the inclusion of digital mentor texts provided access to modes that have rhetorical affordances for the writer, the quantitative measures were insensitive to the effects of instruction with the digital texts. In addition, the failure to include a digital mentor text only condition, without traditionally-printed mentor texts, preclude any conclusions from the quantitative data about the effects of instruction involving digital mentor texts on the writing performance of fifth-grade students' evidence-based arguments. As a result, the study was unable to draw any inferences about the effects of digital mentor texts except that they augment the effects of instruction involving traditional texts. In relation to the qualitative analysis, it may have been helpful to interview the three students in the traditionally-printed condition. The data collected from the interviews may have provided important information about the students' perspectives using only traditionally-printed texts to support their arguments. This information could have been compared and contrasted with information gotten from the three students in the traditionally-printed and digital condition, which may have helped highlight the unique affordances of digital texts.

Second, the lack of movement on some measures could be attributable to two factors: the small, purposeful sample used (Patton, 1990) and the robust argumentative writing instruction students received before the intervention. This means that the findings emerging from the data and claims made in response to these findings are specific to the writing behavior of six fifth-grade writers from a single elementary

school within a small rural school district in the United States. While the findings from this study suggest that instruction that used traditionally-printed and digital mentor texts encouraged these students to include more argumentative structural components and thus achieve a higher quality of writing performance, this may not be true for other populations of novice writers. Therefore, this study's finding cannot be generalized to other fifth-grade students. Additionally, the robust argumentative writing instruction students received before the intervention, may have lead to a ceiling effect for the students' writing performance. Since the purposeful sample for this study included only fifth-grade students who achieved proficient or advanced scores on the ELA portion of the PSSA standardized test, it is reasonable to assume the students already had a solid understanding of how to write an evidence-based argument prior to the start of the intervention. Limitations associated with the sample indicate the need for further research with more diverse populations of fifth-grade students with a wider range of abilities.

Third, while the six fifth-grade students who participated in this study were able to appreciate that evidence-based arguments are more convincing when the author acknowledges alternative perspectives and provides elaborated reasons, the students still had difficulty generating tie-in sentences that explained why the evidence supported the standpoint. Moreover, the data analysis revealed that students' initial attempts to draw conclusions in order to explain why the evidence supported the standpoint were inconsistent. This may indicate that the ability to generate a chain of reasons that includes tie-in sentences (i.e., warrants), counterarguments, and rebuttals may be a sophisticated skill that fifth-graders are not yet developmentally prepared to produce (Ferretti et al., 2009). This finding suggests that the development of deeper

rhetorical thinking is just beginning to emerge, so the students' age may be another important limitation of this study.

Implications

As literacy researchers, it is important to identify the effects of explicit instruction scaffolded through the study of traditionally-printed and digital mentor texts on fifth-grade students' ability to write a well-developed evidence-based argument. Although this study should be considered an initial step toward investigating new instruction approaches that utilize mentor texts to provide students with opportunities to combine evidence-based argumentation with multimodal meaning making, the study's findings are associated with the design of effective writing instruction.

The first implication directly relates to argumentative writing instruction and the need for explicit instruction in the classroom. According to common argumentative models (Toulmin, 2003; van Eemeren & Grootendorst, 1992, 2004), a well-written evidence-based argument contains an introduction of the controversial issue, a standpoint, reasons supported through the use of evidence, an acknowledgement of alternative perspectives, and a conclusion that presents a call to action. Previous research suggests teaching students how to identify alternative perspectives as a consistent component throughout instruction to help students avoid myside bias (Wolfe & Britt, 2008, 2009). The finding of this study highlighted the amount of time it takes novice writers to emulate each structural element in their writing. As a result, this study found that instruction was sufficient for bridge and alternative perspectives sentences but it was not sufficient for reasons supported through the use of evidence at level two and level three reasons. Since the CCSS

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(NGA & CCSSO, 2010) has significantly changed the expectations for writing instruction, educators are seeking out the most effective instructional methods. In order for students to develop the skills needed to generate a well-developed evidence-based argument, classroom teachers may need to include more than one day of instruction for each argumentative structural element. This means classroom teachers may need to reevaluate their instructional design that is based on current research.

The second implication relates to teacher education and the role of research to develop pedagogical knowledge. Research suggests students below sixth grade are not developmentally ready to handle the cognitive tasks required to produce a sophisticated evidence-based argument (Eisenberg & Garvey, 1981; Kuhn, 1991; Stein & Miller, 1990). At the same time, students in fifth grade are getting ready developmentally to produce a more robust opinion essay with elaborated reasons, counterarguments, and rebuttals. Findings from this study show how explicit cognitive strategy instruction, along with the study of mentor texts, created a zone of proximal development where fifth-grade students were able to increase the structure and quality of their evidence-based arguments. The findings of the study suggest instruction that uses traditionally-printed or traditionally-printed and digital mentor texts supported students' writing performance at a higher proficiency level than would otherwise be expected developmentally. This finding points to the important role of mentor texts to present a more sophisticated argumentative discourse than students would be familiar with in everything conversations. Therefore, when preparing novice teachers to develop effective writing instruction, it is important to provide research that includes mentor texts.

The third implication is associated with instruction that combines both evidence-based argumentation and multimodal meaning making. Results from this study suggest that instruction that taught students how to identify an author's intentional decision making in both traditionally-printed and digital mentor texts, enabled students to write an evidence-based argument at a higher proficiency level than would otherwise be expected. In order to prepare students to become critical consumers of a wide variety of texts, they may benefit from instruction that provides a space for explicit instruction in both evidence-based argumentation and multimodal meaning making. In this way, the study of traditionally-printed and digital mentor texts becomes a universal skill that students can apply throughout school and, eventually, the workplace to help them write evidence-based arguments at higher levels of proficiency.

Future Directions

This study has three recommendations for future directions in the area of argumentation, multimodal meaning making, and the possibility of combining both through explicit writing instruction. The first recommendation is associated with argumentation. Although there is much theory behind argumentative writing (Newell, Beach, Smith & Van Der Heide, 2011; VanDerHeide & Newell, 2013), there is still little empirical research informing effective instructional practice at the elementary level. The findings from this study highlight how mentor texts could be used to scaffold explicit instruction of the unfamiliar discourse of evidence-based arguments.

Since this study used a small purposeful sample of skilled fifth-grade students, future research is needed to determine how this instruction would impact different

populations, such as students who struggle with writing and English Language Learners.

In this way, future research may provide important findings to support classroom teachers and teacher educators as they search for effective writing instruction that meets the needs of all students at the elementary level. As a result, educators may develop the pedagogical knowledge to design writing instruction that includes the rhetorical thinking required to write a sophisticated chain of reasons so that all elementary students may emulate this discourse in their writing.

The second recommendation for future research is associated with multimodal meaning making. Research suggests that literacy is deictic in nature and our engagement with technology is changing literacy practices at a rapid rate (Leu et al., 2013). While there is a growing body of research investigating the use of traditionally-printed mentor texts (Pytash et al., 2014) studies grounded in the theory of multimodality specific to digital mentor texts are just beginning to emerge (Howell et al., 2015; Rish, 2012; Werderich et al., 2016). The findings from this study suggest there is a need to equip students with skills and strategies for reading multimodal texts. In addition, the findings from this study highlight the need to provide explicit instruction regarding an author's intentional decisions to create a chain of reasons by layering multiple modes. In order to inform the theoretical views of multimodal meaning making, more empirical research is needed to understand the effects of teaching students the five steps of *Reading Like a Digital Reader* (Werderich, Manderino, & Godinez, 2016). Additionally, eye-tracking software could be used to collect data on students' reading path when deconstructing digital mentor texts. Researchers could then use the eye-tracking data to support students' think aloud

process as they reflect on how noticing multiple modes might have impacted their understanding of an author's intentional decisions to make the argument more persuasive.

The third recommendation for future directions is at the intersection of both argumentation and multimodal meaning making. Scholars have argued for the need to incorporate effective instructional methods for the teaching and learning of multimodal literacy skills (Leu et al., 2013). Previous research has shown how deconstructing a digital mentor text provides an opportunity for students to develop a multifaceted understanding of evidence-based argumentation (Rish, 2012). Additionally, research supports the claim that educators could use a multimodal model of analysis to discuss the intricate relationships among the written, visual, and numeric forms of evidence (Whithaus, 2012). The findings from this study suggest that evidence-based argumentation can be represented through the layering of multiple modes. For that reason, further research is needed to understand an author's intentional decisions to create a chain of reasons at the intersection of evidence-based argumentation and multimodal meaning making. Therefore, this study recommends more empirical research through the use of concurrent interviews that are designed to provide a space for skilled writers of multimodal arguments to share their generation process through a think alouds. This data could then be used to inform theoretical views of evidence-based argumentation regarding the skills and strategies required when reading and writing multimodal texts.

Conclusion

At a time when the *Common Core State Standards* (NGA & CCSSO, 2010) have placed a stronger emphasis on evidence-based argumentative writing and

multimodal meaning making, educators may benefit from a clearer understanding of how best to help their students to develop the skills needed to write an argument and make meaning from a variety of texts. This study contributes to the body of knowledge in the area of literacy by taking into account both traditional-print and digital multimodal forms of argumentation. Additionally, this study adds to the socially constructed nature of writing extending the definition of literacy skills to include constructing meaning from a range of multimodal resources and multimodal designs. As the results from this study found no clear difference in the writing performance of the fifth-grade students in the two conditions tested, it is not possible to make claims about any effects specific to the type of mentor text (i.e., a comparison of traditionally-printed or digital mentor texts). Yet, the findings indicate that the combination of traditionally-printed and digital mentor texts did not hinder the writing performance of the fifth-grade students who participated in that condition. Therefore, educators should consider explicit instruction that uses both traditionally-printed and digital mentor texts as an effective method to help fifth-grade students develop a better understanding of the structural elements of an evidence-based argument and multimodal meaning making.

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Appendix A

EXEMPLAR ESSAYS FOR STUDENTS IN THE TRADITIONALLY-PRINTED CONDITION

T1 Baseline Essay

Do you think students should be using a digital textbook instead of traditional textbooks? I definitely do! I think that they should use digital textbooks instead of traditional textbooks because they are much, much cheaper than the big traditional ones, they are way lighter than traditional textbooks, and they can easily search anything they want to learn, or have questions about by easily using the "search" feature.

To start off, I think students should use digital textbooks instead of traditional textbooks because they are much cheaper than traditional textbooks. I think this is because, according to the text, "Digital textbooks are often much cheaper than traditional ones." Also, "One school district saved, $175,000 by creating their own digital textbooks instead of buying completed ones." This shows that digital textbooks are cheaper than traditional textbooks, and can probably help schools save a lot of money. This is just one of the many reasons why I think students should use digital textbooks instead of traditional ones.

Second of all, I think students should use digital textbooks instead of traditional textbooks is because digital ones are way lighter than traditional textbooks. I know this because, according to text, "Tablets are much lighter than traditional textbooks, and can be updated with new information." This shows that they are much lighter than traditional textbooks and probably hold the same information and more.

Third of all, I think students should use digital textbooks instead of traditional ones because students can easily search any information they need. I know this because, according to the text, "It's easy to search for information in a digital book by using a "Search" feature. This definitely shows that students can look up any information they need with the click of a button, instead of having to flip all the through a traditional textbook to find the information they need.

Hence, I think students should use digital textbooks rather than traditional textbooks because they are a lot cheaper, they are much lighter than the traditional textbooks, and they are so much easier to search information on.

Introduction

Do you think students should be using a digital textbook instead of traditional textbooks? I definitely do! I think that they should use digital textbooks instead of traditional textbooks because they are much, much cheaper than the big traditional ones, they are way lighter than traditional textbooks, and they can easily search anything they want to learn, or have questions about by easily using the "search" feature.

SP1
I think that they should use digital textbooks

SP1.R1
To start off, I think students should use digital textbooks instead of traditional textbooks because they are much cheaper than traditional textbooks.

SP1.R2
Second of all, I think students should use digital textbooks instead of traditional textbooks is because digital ones are way lighter than traditional textbooks.

SP1.R3
Third of all, I think students should use digital textbooks instead of traditional ones because students can easily search any information they need.

SP1.R1.R1a
I think this is because, according to the text, "Digital textbooks are often much cheaper than traditional ones."

SP1.R1.R1b
Also, "One school district saved, $175,000 by creating their own digital textbooks instead of buying completed ones."

SP1.R2.R1
I know this because, according to text, "Tablets are much lighter than traditional textbooks, and can be updated with new information."

SP1.R3.R1
I know this because, according to the text, "It's easy to search for information in a digital book by using a "Search" feature.

SP1.R1.R1.R1a
This shows that digital textbooks are cheaper than traditional textbooks, and can probably help schools save a lot of money.

SP1.R2.R1.R1
This shows that they are much lighter than traditional textbooks and probably hold the same information and more.

SP1.R3.R1.R1
This definitely shows that students can look up any information they need with the click of a button, instead of having to flip all the through a traditional textbook to find the information they need.

FR
This is just one of the many reasons why I think students should use digital textbooks instead of traditional ones.

Conclusion

Hence, I think students should use digital textbooks rather than traditional textbooks because they are a lot cheaper, they are much lighter than the traditional textbooks, and they are so much easier to search information on.

Graphic Representation of T1's Baseline Essay

T1 Maintenance Essay

Did you know that students who are used to having background music while studying do better with the music then in silence? Although some people may say that students test scores are higher when taken in a quiet environment, I believe that music is relaxing because it can help with studying and that can make life so much easier.

To start off, I believe that music is relaxing because it can help students that struggle to complete their homework. According to the author, music can improve motivation for students who are struggling to complete their homework. Although some people may argue that listening to music with lyrics can make it difficult for the brain to comprehend tasks like reading or writing. This shows that listening to music is also great other than being relaxing because it can help kids with their homework and that can help parents out a lot.

Second of all, music is relaxing because music can also help kids out with studying. According to the author, some students find music helps keep them focused while studying. Although some people may say that research suggests music and studying forces the brain to do two things at once, making it difficult to focus. But I still believe that music is relaxing because it can help students' study and so why not listen?

Third of all, I believe that music is relaxing because it can help out with things like concentration. According to the author, the findings of a 2010 study of 600 students suggest music helped most with concentration, easing stress, and reducing boredom. Although some people may argue that the findings of a 2010 study of 600 students suggest music interferes with focus when memorizing information for tests. But I believe that concentration, easing stress, and reduced boredom are all a whole lot better than just memory.

In conclusion, I believe that music is relaxing because it improves motivation, improves focus, and improves studying. In the future, when you need to study for a test, turn on some music and I guarantee that you will get an A+ on your test.

Introduction

Did you know that students who are used to having background music while studying do better with the music then in silence? Although some people may say that students test scores are higher when taken in a quiet environment, I believe that music is relaxing because it can help with studying and that can make life so much easier.

SP1
I believe that music is relaxing

SP1.R1
To start off, I believe that music is relaxing because it can help students that struggle to complete their homework.

SP1.R2
Second of all, music is relaxing because music can also help kids out with studying.

SP1.R3
Third of all, I believe that music is relaxing because it can help out with things like concentration.

SP1.R1.R1a
According to the author, music can improve motivation for students who are struggling to complete their homework.

SP1.AP
Although some people may argue that listening to music with lyrics can make it difficult for the brain to comprehend tasks like reading or writing.

SP1.R2.R1
According to the author, some students find music helps keep them focused while studying.

SP1.AP
Although some people may say that research suggests music and studying forces the brain to do two things at once, making it difficult to focus.

SP1.R3.R1
According to the author, the findings of a 2010 study of 600 students suggest music helped most with concentration, easing stress, and reducing boredom.

SP1.AP
Although some people may argue that the findings of a 2010 study of 600 students suggest music interferes with focus when memorizing information for tests.

SP1.R1.R1.R1a
This shows that listening to music is also great other than being relaxing because it can help kids with their homework.

SP1.R1.R1.R1b
and that can help parents out a lot.

SP1.REB
But I still believe that music is relaxing because it can help students' study and so why not listen?

SP1.REBa
But I believe that concentration,

SP1.REBb
easing stress,

SP1.REBc
and reduced boredom are all a whole lot better than just memory.

Conclusion

In conclusion, I believe that music is relaxing because it improves motivation, improves focus, and improves studying. In the future, when you need to study for a test, turn on some music and I guarantee that you will get an A+ on your test.

Graphic Representation of T1's Maintenance Essay

T2 Baseline Essay

I think that trampolines are safe because jumping on trampolines are great exercise and trampoline games allow kids to get involved safely when one child bounces at a time.

I think trampolines are great exercise because children can really do anything they want without getting hurt. It allows them to run, jump, play, and get their energy out.

Another reason is that by playing games it allows them to get involved. Children would get exercise and have fun at the same time.

The final reason is that mostly likely its more safe when one kid bounces at a time. They also have more freedom to do cartwheels and somersaults.

These were some of the reasons I think trampolines are safe: exercise, getting them involved, and to bounce one at a time.

Introduction

I think that trampolines are safe because jumping on trampolines are great exercise and trampoline games allow kids to get involved safely when one child bounces at a time.

SP1

I think that trampolines are safe

SP1.R1

I think trampolines are great exercise because children can really do anything they want without getting hurt.

SP1.R2

Another reason is that by playing games it allows them to get involved.

SP1.R3.

The final reason is that mostly likely its more safe when one kid bounces at a time.

SP1.R1.R1a

It allows them to run,

SP1.R1. R1b

jump,

SP1.R1.R1c

play,

SP1.R1.R1d

and get their energy out.

SP1.R2.R1a

Children would get exercise

SP1.R2.R1b

and have fun at the same time.

SP1.R3.R1a

They also have more freedom to do cartwheels

SP1.R3.R1b

and somersaults.

Conclusion

These were some of the reasons I think trampolines are safe: exercise, getting them involved, and to bounce one at a time.

Graphic Representation of T2's Baseline Essay

T2 Maintenance Essay

Do you listen to music when you're studying or doing homework? Even though it may be difficult to focus for some people, for others it may help them focus even more. I believe that studying with music is relaxing because music can help improve more on completing homework.

The first reason that I think music is relaxing is because listening to classical music can boost stamina and help your brain stay stimulated. If you can't complete your studying you should be listening to classical music. If you don't listen to music while doing homework you could get bad grades.

The second reason music is relaxing is that according to researchers, most students can study better with music and not in complete silence. For example, if I couldn't complete my homework and it keeps happening constantly, I should ask my parents what to do about it and chances are they are going to say something completely opposite of listening to music. As a matter of fact, they may say to turn your T.V. off and be in complete silence. Stop your parents if they say this because the music can help you, not hurt you.

And the final reason music is relaxing, according to the U.S. Department of Education, quiet background music can help some children focus. Most parents will disagree with this. But it's true that if you can't focus you can't succeed. Do the right thing to help you be successful in school…listen to music!

As you can see, listening to music can help with many other things than just listening. Music can stimulate your brain, study better, and keep children focused. Now we have another strategy for studying, music!

Introduction

Do you listen to music when you're studying or doing homework? Even though it may be difficult to focus for some people, for others it may help them focus even more. I believe that studying with music is relaxing because music can help

...

SP1
I believe that studying with music is relaxing

SP1.R1a
The first reason that I think music is relaxing is because listening to classical music can boost stamina

SP1.R1b
and help your brain stay stimulated.

SP1.R2
The second reason music is relaxing is that according to researchers, most students can study better with music and not in complete silence.

SP1.R3
And the final reason music is relaxing, according to the U.S. Department of Education, quiet background music can help some children focus.

SP1.AP
Most parents will disagree with this.

SP1.AP
If you can't complete your studying you should be listening to classical music.

SP1.R2.R1a
For example, if I couldn't complete my homework and it keeps happening constantly, I should ask my parents what to do about it and chances are they are going to say something completely opposite of listening to music.

SP1.R2.R1.b
As a matter of fact, they may say to turn your T.V. off and be in complete silence.

SP1.R3.R1
According to the author, the findings of a 2010 study of 600 students suggest music helped most with concentration, easing stress, and reducing boredom.

SP1.REB
But it's true that if you can't focus you can't succeed.

SP1.R1.R1.R1
If you don't listen to music while doing homework you could get bad grades.

SP1.R2.R1.R1
Stop your parents if they say this because the music can help you, not hurt you.

SP1.R3.R1.R1
Do the right thing to help you be successful in school....listen to music!

Conclusion

As you can see, listening to music can help with many other things than just listening. Music can stimulate your brain, study better, and keep children focused. Now we have another strategy for studying, music!

Graphic Representation of T2's Maintenance Essay

T3 Baseline Essay

Imagine being a parent of a child who broke a leg or any bone on a trampoline. It is not safe for some kids to bounce on trampolines, says Dr. Michele LeBrotz. Also a study stated that there were 100,000 trampoline injuries in 2009 and 300,000 broken bones between 2002 and 2011. This shows that it's not safe to jump on trampolines.

One reason that shows why it's not safe to jump on trampolines is the studies that many people made including Dr. Michele LeBrotz. She states that injuries happen when the rules are followed. Also studies turn out to show smaller kids get hurt more than bigger kids, this shows that many older kids are more mature than younger kids.

Another reason is that studies show 300,000 broken bones occurred between 2002-2011. Do to this, many people think this happens all the time and their parents get held responsible, according to the Academy of Pediatrics.

Jumping on trampolines may be good for hearts and other active things, but after studies it shows your more likely to get hurt then get really strong from jumping.

These reasons show that I'm strongly on the side that says kids should not be able to jump on trampolines even if they are chaperoned and following the rules.

Introduction

Imagine being a parent of a child who broke a leg or any bone on a trampoline. It is not safe for some kids to bounce on trampolines, says Dr. Michele LeBrotz. Also a study stated that there were 100,000 trampoline injuries in 2009 and 300,000 broken bones between 2002 and 2011. This shows that it's not safe to jump on trampolines.

SP1

It's not safe to jump on trampolines

SP1.R1

One reason that shows why it's not safe to jump on trampolines is the studies that many people made including Dr. Michele LeBrotz.

SP1.R2

Another reason is that studies show 300,000 broken bones occurred between 2002-2011.

SP1.AP.

Jumping on trampolines may be good for hearts and other active things,

SP1.R1.R1

She states that injuries happen when the rules are followed.

SP1.R2.R1

Do to this, many people think this happens all the time and their parents get held responsible, according to the Academy of Pediatrics.

SP1.REB

but after studies it shows your more likely to get hurt then get really strong from jumping.

SP1.R1.R1.R1

Also studies turn out to show smaller kids get hurt more than bigger kids, this shows that many older kids are more mature than younger kids.

Conclusion

These reasons show that I'm strongly on the side that says kids should not be able to jump on trampolines even if they are chaperoned and following the rules.

Graphic Representation of T3's Baseline Essay

T3 Maintenance Essay

Do you think music is relaxing or distracting? Maybe it stimulates your brain, or maybe listening to music before studying stimulates your brain to be ready for the test. I believe it's relaxing because according to the U.S. Department of Education, quiet background music can help some children focus.

My first reason music is relaxing is music can improve not decrease motivation, helping kids stay into studying and homework. Although people argue kids are doing two things at once, making it difficult to focus and get ready for the test. For example, that's just the kids who have it jamming, not the kids who have soft, quite background music. This shows that kids could love homework because of the calming music.

Secondly, music is relaxing because music also keeps them focused. Now they want to do their homework and they can focus on it. Even though a recent study at Whales found that test taken in a quiet environment helps test scores. But the focus may go up higher depending on who's taking the test. If it's a kid who likes a quiet environment to go to then they'll be better, but if it's a kid who works well with music, they'll be better in an environment with music. As you can see kids who like music will do better in an environment with music.

My last reason music is relaxing is the findings of a study in 2010 showed 600 students suggest music helps them with, not only homework, but concentration, easing stress, and helping reduce boredom. But many people argue according to the University of Phoenix, students struggle to remember things while listening to music. But this is because the students listen to music with lyrics. Why not get music without lyrics? I know this because it says they struggled while listening to music with lyrics.

I conclude that studying to music is relaxing. You can listen to tunes and have fun with homework. So next time you're bored doing homework, listen to music.

Introduction

Do you think music is relaxing or distracting? Maybe it stimulates your brain, or maybe listening to music before studying stimulates your brain to be ready for the test. I believe it's relaxing because according to the U.S. Department of Education, quiet background music can help some children focus.

SP1
I believe it's relaxing

SP1.R1a
My first reason music is relaxing is music can improve not decrease motivation.

SP1.R1b
helping kids stay into studying

SP1.R1.c
and homework.

SP1.R2
Secondly, music is relaxing because music also keeps them focused.

SP1.R3a
My last reason music is relaxing is the findings of a study in 2010 showed 600 students suggest music helps them with, not only homework,

SP1.R3.b
but concentration,

SP1.R3.c
easing stress,

SP1.R3.d
and helping tedious boredom.

SP1.APa
Although people argue kids are doing two things at once,

SP1.APb
making it difficult to focus

SP1.APc
and get ready for the test.

SP1.R2.R1a
Now they want to do their homework

SP1.R2.R1.b
and they can focus on it.

SP1.AP
Even though a recent study at Whales found that test taken in a quiet environment helps test scores.

SP1.AP
But many people argue according to the University of Phoenix, student's struggle to remember things while listening to music.

SP1.REB a
For example, that's just the kids who have it jamming.

SP1.REBb
not the kids who have soft, quite background music.

SP1.REBa
But the focus may go up higher depending on who's taking the test.

SP1.REBb
If it's a kid who likes a quiet environment to go to then they'll be better.

SP1.REBc
but if it's a kid who works well with music, they'll be better in an environment with music.

SP1.R3.R1.R1
I know this because it says they struggled while listening to music with lyrics.

SP1.REB
But this is because the students listen to music with lyrics.

SP1.R1.R1.R1
This shows that kids could love homework because of the calming music.

SP1.R2.R1.R1
As you can see kids who like music will do better in an environment with music.

REF?
Why not get music without lyrics?

Conclusion

I conclude that studying to music is relaxing. You can listen to tunes and have fun with homework. So next time you're bored doing homework, listen to music.

Graphic Representation of T3's Maintenance Essay

Appendix B

EXEMPLAR ESSAYS FOR STUDENTS IN THE TRADITIONALLY-PRINTED AND DIGITAL CONDITION

TD1 Baseline Essay

Imagine you play sports in school basketball and then one day, your parents say that there will be no more sports. That would be sad. That's why I think that school sports are excellent because, the people play sports are most likely to attend college, they are less likely to get into trouble, and they can get good jobs as adults.

First, they are most likely to get into/go to college because of these sports. In the text it states, "High school athletes are more likely to get into college than non-athletes." This shows that the athletes will most likely get into college to pursue these sports, which is why students should be in sports.

Also, the people who play are less likely to get into drugs and trouble. The author states, "People play sports regularly are less likely to use drugs." This tells me that people who play sports will be out of trouble so they can play sports, because if they get in trouble then they might not be allowed to play on the team any more.

In addition, students who play sports are likely to get good jobs and pay as adults. The text states, "Students who play school sports tend to get better jobs with better pay." This shows me that students will work hard in sports to get good jobs.

In conclusion, I think school sports are excellent because students are more likely to go to college, they will not get into drugs and they will get good paying jobs. So next time you play a sport, remember how fun it is to play that sport.

Introduction

Imagine you play sports in school basketball and then one day, your parents say that there will be no more sports. That would be sad. That's why I think that school sports are excellent because, the people play sports are most likely to attend college, they are less likely to get into trouble, and they can get good jobs as adults.

SP1

I think that school sports are excellent

SP1.R1

First, they are most likely to get into/go to college because of these sports.

SP1.R2.a

Also, the people who play are less likely to get into drugs .

SP1.R2.b

and trouble.

SP1.R3

In addition, students who play sports are likely to get good jobs and pay as adults.

SP1.R1.R1

In the text it states, "High school athletes are more likely to get into college than non-athletes."

SP1.R2.R1

The author states, "People play sports regularly are less likely to use drugs."

SP1.R3.R1

The text states, "Students who play school sports tend to get better jobs with better pay."

SP1.R1.R1.R1

This shows that the athletes will most likely get into college to pursue these sports, which is why students should be in sports.

SP1.R2.R1.R1

This tells me that people who play sports will be out of trouble so they can play sports, because if they get in trouble then they might not be allowed to play on the team any more.

SP1.R3.R1.R1

This shows me that students will work hard in sports to get good jobs.

Conclusion

In conclusion, I think school sports are excellent because students are more likely to go to college, they will not get into drugs and they will get good paying jobs. So next time you play a sport, remember how fun it is to play that sport.

Graphic Representation of TD1's Baseline Essay

TD1 Maintenance Essay

Today, music is easy to access and portable. Many students listen to music while studying or doing homework. Some say that studying with music makes it difficult to focus but really sometimes it just depends on the music type. I believe that studying with music does not interfere at all because orchestra music is soft and is hard to be distracted by.

My first reason music is relaxing is orchestral musical has a sense of calm allowing student to let all of the stress they may have all go. The findings of a 2010 study of 600 students suggests music helped most with concentration, easing stress, and reducing boredom. This can be helpful for students who have a lot of homework, and may be stressed about it. This shows that when kids felt stressed typically they take longer for them to complete the assignment, leaving little time for family time.

In addition, music is relaxing because quite background music or soft orchestral music is helpful for focus. According to the U.S. Department of Education quite background music can help some children focus on studying. This is important because focus is important for remembering.

Some say that listening to music while studying forces the brain to do two things at once. They say this makes it hard to focus, but it can be argued that students who are studying with music do better than in silence. Also, the music may be hard rock, which causes them to not be able to focus. But don't worry it's a simple fix, just turn on orchestra music on low volume.

In conclusion, listening to quiet music while studying is not as bad as they say. Because music relieves stress, students do better, and not focusing is an easy fix. So next time you go to study, consider turning on music so you can study better than before.

Introduction

Today, music is easy to access and portable. Many students listen to music while studying or doing homework. Some say that studying with music makes it difficult to focus but really sometimes it just depends on the music type. I believe that studying with music does not interfere at all because orchestra music is soft and is hard to be distracted by.

SP1
I believe that studying with music does not interfere

SP1.R1a
My first reason music is relaxing is orchestral musical has a sense of calm allowing student to let all of the stress they may have all go.

SP1.R1.R1a
The findings of a 2010 study of 600 students suggests music helped most with concentration, easing stress, and reducing boredom.

SP1.R1.R1.b
easing stress

SP1.R1.R1.c
and reducing boredom.

SP1.R1.R1.R1
This can be helpful for students who have a lot of homework, and may be stressed about it.

SP1.R1.R1.R1.R1 This shows that when kids felt stressed typically they take longer for them to complete the assignment, leaving little time for family time.

SP1.R2
In addition, music is relaxing because quite background music or soft orchestral music is helpful for focus.

SP1.R2.R1
According to the U.S. Department of Education quite background music can help some children focus on studying.

SP1.R2.R1.R1
This is important because focus is important for remembering.

SP1.AP
Some say that listening to music while studying forces the brain to do two things at once.

SP1.REBa
They say this makes it hard to focus, but it can be argued that students who are studying with music do better than in silence.

SP1.REBb
Also, the music may be hard rock, which causes them to not be able to focus.

SP1.REBc
But don't worry it's a simple fix, just turn on orchestra music on low volume.

Conclusion

In conclusion, listening to quiet music while studying is not as bad as they say. Because music relieves stress, students do better, and not focusing is an easy fix. So next time you go to study, consider turning on music so you can study better than before.

Graphic Representation of TD1's Maintenance Essay

TD 2 Baseline Essay

   I think that sports are excellent because students get exercise and they get to see their friends and play in tournaments.

   One way sports are excellent is students can pursue their dreams and be in the major leagues. They will also stay away from drugs and other things. Another way sports are excellent is that they get to play with their friends. They also get to play in the tournaments. Lastly, you get a trophy.

   Another way sports are excellent is that you get stronger. You might also develop new skills. Another way sports are excellent is that you get really cool jerseys. Sports are excellent because if you get a point of any kind your teammates will cheer for you. Sports are excellent because you get to play your favorite position and your favorite sport.

   These are my two reasons why sports are excellent. One reason is you get to pursue your dreams and the other reason is you get to see your friends.
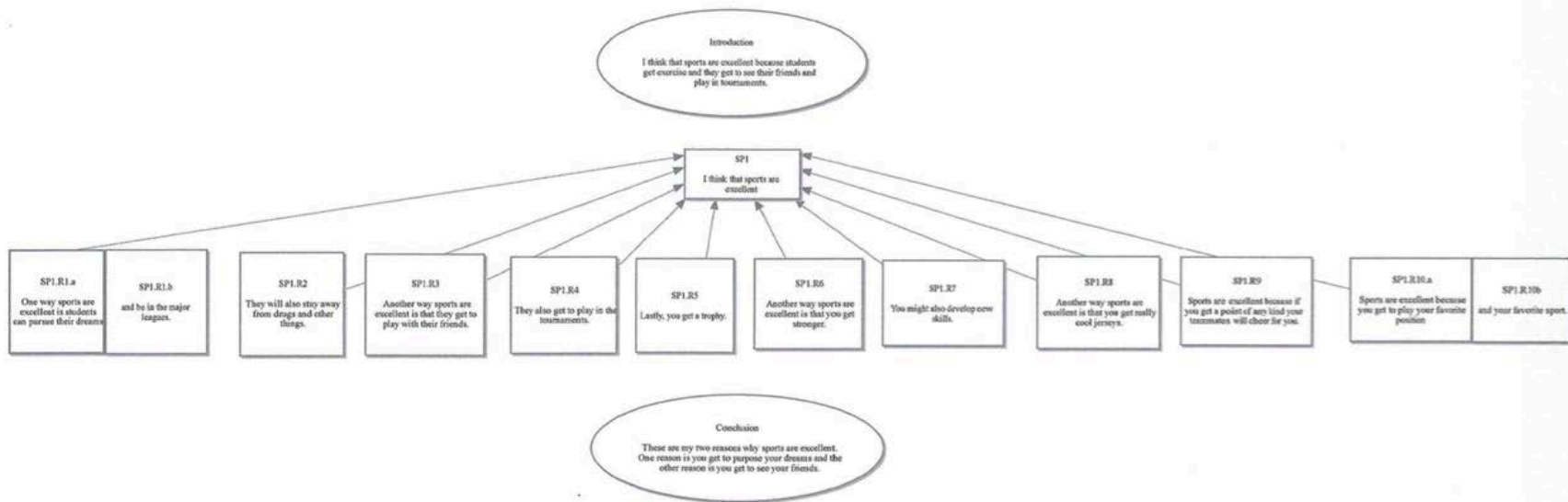
Graphic Representation of TD 2's Baseline Essay

TD2 Maintenance Essay

Did you know that music helps you relax? Now if you're already saying it's distracting I beg to differ. You see if you listen to music while you're studying and you forget something, the song will refresh your brain causing you not to stress and you'll remember what you forgot. Plus, homework is boring so you need something to make it fun.

One way music is relaxing is it helps you focus. It helps you focus because you're not stressed out. You could even be listening to Twisted Sister or Journey and still be relaxed if you like 80's rock. You don't stress out because you're jamming out. I mean you might get a headache if your jamming out too hard so just don't whip your hair back and forth. You might poke your eye out with a pencil.

Another way music is relaxing is it helps you concentrate. Like if you're listening to classical music you're not busting your face on your phone or tablet. Spa music also relaxes your muscles and makes you sleepy. And when you're calm and sleepy, you concentrate better because you just want to go to bed. It also reduces boredom. So if you're bored, turn on some tunes.

Lastly, music is relaxing because it helps you get higher grades. You get higher grades because you're not stressed out. And you're not stressed out because the music calmed you down. And the music calmed you down because you're not bored any more. So if you're stressed listen to music.

So if you're stressed, bored, can't concentrate, and not focused, listen to music! And if you still think music is distracting, read my essay until you believe me.

Introduction

Did you know that music helps you relax? Now if you're already saying it's distracting I beg to differ. You see if you listen to music while you're studying and you forget something, the song will refresh your brain causing you not to stress and you'll remember what you forgot. Plus, homework is boring so you need something to make it fun.

SP1

music helps you relax

SP1.R1

One way music is relaxing is it helps you focus.

SP1.R2

Another way music is relaxing is it helps you concentrate.

SP1.R3.

Lastly, music is relaxing because it helps you get higher grades.

SP1.R1.R1a

It helps you focus because you're not stressed out.

SP1.R1.R1b

You don't stress out because you're jamming out.

SP1.R2.R1a

Like if you're listening to classical music you're not busting your face on your phone or tablet.

SP1.R2.R1b

Spa music also relaxes your muscles and makes you sleepy.

SP1.R3.R1a

You get higher grades because you're not stressed out.

SP1.R1.R.1.R1a

You could even be listening to Twisted Sister or Journey and still be relaxed if you like 80's rock.

SP1.R1.R.1.R1b

I mean you might get a headache if your jamming out too hard so just don't whip your hair back and forth.

SP1.R1.R.1.R1b

You might poke your eye out with a pencil.

SP1.R2.R1.R1a

And when you're calm and sleepy, you concentrate better because you just want to go to bed.

SP1.R2.R1.R1b

It also reduces boredom.

SP1.R2.R1.R1b

So if you're bored, turn on some tunes.

SP1.R3.R1.R1

And you're not stressed out because the music calmed you down.

SP1.R3.R1.R1.R1a

And the music calmed you down because you're not bored any more.

SP1.R3.R1.R1.R1.R1b

So if you're stressed listen to music.

Conclusion

So if you're stressed, bored, can't concentrate, and not focused, listen to music! And if you still think music is distracting, read my essay until you believe me.

Graphic Representation of TD2's Maintenance Essay

TD3 Baseline Essay

Do you think trampolines are safe to have? Well I don't think they're safe. I think they are dangerous. Here are the reasons why: they are dangerous with more than 100,000 trampoline injuries in 2009, many insurance companies do not allow homeowners to have trampolines, and kids get hurt even when trampoline rules are followed.

My first reason on why trampolines are dangerous is more than 100,000 trampoline injuries happened in 2009. 100,000 trampoline injuries are a lot. The injuries may include broken legs and arms, and even concussions and abdominal injuries. Would you want any of those injuries happening to you, because I wouldn't? Some of those injuries may happen because of people doing flips, summersaults, falling off the trampoline if there is no netting around the edges and having one too many kids on a trampoline at a time.

My second reason is many insurance companies do not allow homeowners to have trampolines. The insurance companies don't allow homeowners to have trampolines because if injuries occur, homeowners may have to pay the cost themselves. You wouldn't want to have to pay for the injuries yourself would you? That was my second reason on why I think trampolines are dangerous.

My final reason is kids, even adults, get hurt even when trampoline rules are followed. If the maximum weight was 250 pounds and you put 100 pounds on you can still get hurt if you try to do a flip or some other trick on a trampoline. If the rules say no flips or front rolls/ back rolls you may still get hurt even if you don't do any of those things. The injuries might just happen because of being poorly built which I'm sure you would build it perfect so no one gets hurt on the trampoline. That was my third reason on why I think trampolines are dangerous.

Even though, trampolines are dangerous, some might say that it's good exercise and trampolines provide you with cardiovascular exercise benefits.

In conclusion, I think trampolines are dangerous. Here are the reasons why: more than 100,000 trampoline injuries occurred in 2009, many insurance companies don't allow homeowners to have trampolines, and kids even get hurt when trampoline rules are followed. That is all why I think trampolines are dangerous and I hope you do to.
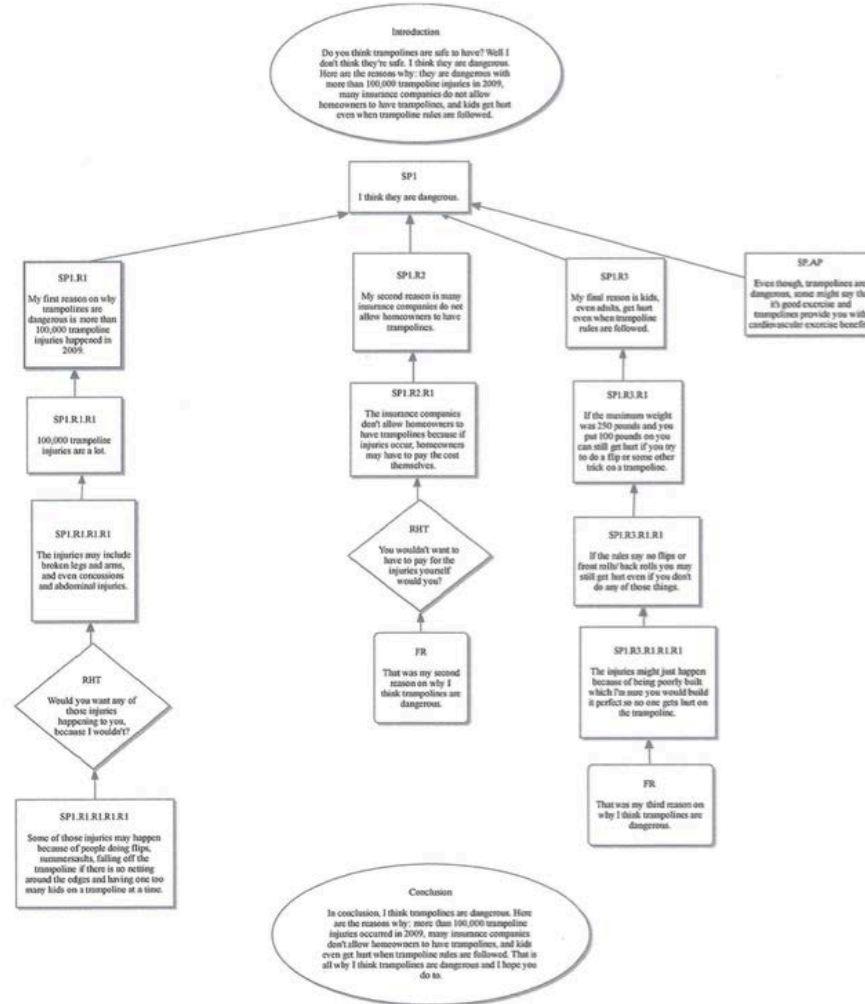
Graphic Representation of TD3's Baseline Essay

TD3 Maintenance Essay

Music is a nice thing. Some say it is distracting and others think it is relaxing. Some people believe music is distracting because students can't focus. Other people think it is relaxing because it does help students to focus. I believe music is relaxing because it relieves stress.

My first reason music is relaxing is that it eases stress. In a study in 2010 of 600 students shows that music interferes with memorizing things. According to another study, they found in 2010 of 600 students music relieves stress and reduces boredom. When it relieves stress, students might want to work more.

My second reason music is relaxing is that students study better. Some researchers found it difficult for students to do two things at once. Another group of researchers found background music while studying helps them do better. When students do better they will get better grades.

My third reason music is relaxing is that it helps them focus. According to a university study, they found when students listen to music with lyrics, they won't focus. Another example is music helps keep them focused while studying. So listening to music will help to study better.

In conclusion, I believe music is relaxing because it eases stress; helps a student study better, and helps keep their focus. So listen to music when you study.

Introduction

Music is a nice thing. Some say it is distracting and others think it is relaxing. Some people believe music is distracting because students can't focus. Other people think it is relaxing because it does help students to focus. I believe music is relaxing because it relieves stress.

SP1

I believe music is relaxing.

SP1.R1

My first reason music is relaxing is that it eases stress.

SP1.R2

My second reason music is relaxing is that students study better.

SP1.R3

My third reason music is relaxing is that it helps them focus.

SP1.R1.R1a

According to another study, they found in 2010 of 600 students music relieves stress.

SP1.R1.R.1.b

and reduces boredom.

SP1.AP

In a study in 2010 of 600 students shows that music interferes with memorizing things.

SP1.R2.R1

Another group of researchers found background music while studying helps them do better.

SP1.AP.

Some researchers found it difficult for students to do two things at once.

SP1.R3.R1

Another example is music helps keep them focused while studying.

SP1.AP

According to a university study, they found when students listen to music with lyrics, they won't focus.

SP1.R1.R1.R1

When it relieves stress, students might want to work more.

SP1.R2.R1.R1

When students do better they will get better grades.

SP1.R3.R1.R1

So listening to music will help to study better.

Conclusion

In conclusion, I believe music is relaxing because it eases stress, helps students study better, and helps keep their focus. So listen to music when you study.

Graphic Representation of TD3's Maintenance Essay

Appendix C

INSTRUCTIONAL PROTOCOL FOR TRADITIONALLY-PRINTED MENTOR TEXT CONDITION

Step 1: Targeting the Author's Perspective, Zoos: Conserving or Cruel
In this session, students are introduced to the purpose of an evidence-based argument and the author's perspective through a traditionally-printed mentor text. The author's perspective is defined as the topic, stance, and purpose. The goal of this session is to highlight the fact that authors have a primary goal of resolving differences of opinion toward their perspective on a controversial issue. Analyzing two mentor texts provides expert models that help students develop evidence-based writing practices so they can engage in a critical dialogue, ponder evidence, broaden perspectives, and make an informed decision. The prompt provides a rationale for the students to analyze two mentor texts and develop evidence-based writing practices so they can engage in a critical dialogue, ponder evidence, broaden perspectives, and make an informed decision about zoos. Are zoos cruel or conserving animals?

Essential Questions	
	Why is argumentation important?
	What is the author's perspective?
	Topic - What is the author talking about?
	Stance – What does the author believe to be true?
	Purpose - Why is the author talking about this topic?

Analyze traditionally-printed mentor text	Zoos: Cruel to Animals Zoos: Conserving Animals
Read like a reader	focusing on the comprehension of the author's message.
Read like a writer	identifying the topic, stance, and purpose in a evidence-based argument.

Gradual Release for Writing	
I DO	Model how to examine evidence for both sides of an issue and write a standpoint from different perspectives using the sentence frame: *I believe that… because* ..
WE DO	Provide several standpoint sentences and discuss how the author's perspective supports cruel or conserving. Select another pieces of evidence and write a standpoint using the sentence frame.
YOU DO	Independently explain the topic, stance, and purpose. Write a standpoint that matches this perspective with the sentence frame.

Mastery	
Student will be able to	explain why it's important to be able to convey their perspective clearly. identify the author's perspective in the mentor text. identify the topic, stance, and purpose in the mentor text. write a standpoint that matches the author's perspective.

Verbal Protocol for a Traditionally-Printed Mentor Text

Step 1: Targeting the Author's Perspective, Zoos: Conserving or Cruel

Check	Action	Before Writing
Activate Schema	Say	Have you ever played the game *Would You Rather?* I will offer you a choice between two things. You have to pick one and tell me why you would rather have that thing. For example, If I would say, "Would you rather eat a hotdog or a hamburger?" you might say, "I would rather eat a hotdog because I like the way it tastes." Or maybe you would say, "I would rather eat a hamburger because it is healthier." If you convince me why your choice is the best, I will let you have it. Do you want to try it?
	Lay out a pencil & pen Say	Would you rather write with a pencil or a pen? (Give examples if student is struggling to come up with a reason) - Pencil – can erase, shade in pictures, sharp, write upside down, know when it's out of lead - Pen – doesn't break, easier to see, don't have to press hard
	Give student the item Lay out sticky notes Say	Would you rather use small or large sticky notes? (Give examples if student is struggling to come up with a reason) - Small – takes up less room - Large – more space to write
	Give student the item Lay out erasers Say	Would you rather have an eraser for the top of your pencil or a medium size eraser? (Give examples if student is struggling to come up with a reason) - eraser top – won't lose it - medium eraser – lasts longer, works better
	Give student the item	

| Background Knowledge | Say | You are really good at making decisions and explaining why you thought that item was the best choice for you. Over the next few days we will be working together to improve your skills at making decisions and convincing me why your decision is the best one for you. There is another word people use to describe the *Would You Rather?* game. It's called **evidence-based argumentation**. Have you ever heard of an evidence-based argument before? **An evidence-based argument is a problem solving strategy you can use when you have to think about two choices, decide which choice is best for you, and then support your choice by giving reasons why you made the better choice.** The goal with an evidence-based argument is to convince me, or your stance, that you made the best choice. Some real world examples include:
• Telling your parents why you should be able to stay up later.
• Explaining to your friend why your sports team is the best.
• Telling your sister or brother why they should let you go first. |
| | *Ask*
Say | *Can you think of any other examples?*
Learning how to write an evidence-based argument is important for three reasons:
1. You learn how to have a conversation.
2. You learn how to think about positives and negatives before you make a choice.
3. You make an informed decision.
Let's review the steps again and I want you to take notes by writing down one word and then drawing a quick picture to help you remember. It is important that you know the steps that will help you write a strong evidence-based argument, not only to convince others that you made the best choice, but also to help you make decisions quickly. Why is it important to be able to write an evidence-based argument? |

Clarify Strategy	Say	Today's strategy is called **Target the Author's Perspective**.
	Lay out the strategy sheet	
	Say	When you are targeting the author's perspective, you are identifying the topic that the author is talking about, what the author believes is true, and the purpose for why the author is arguing. Once you know the author's perspective, you can decide if you want to agree or disagree with their choice. Then you can join the conversation by sharing your decision and explaining why your choice is the best choice for you. The goal is to get the reader to agree that your choice is the best choice.
	Lay out Zoos: Cruel	
	Say	Let's try it out with this mentor text on an evidence-based argument. A mentor text is an example of a really well written essay that can show us how to write a strong and complete evidence-based argument. I will read it to you and then we will work together to see if we can **Target the Author's Perspective**.
	Read like a reader	Zoos: Cruel to Animals
	Read like a Writer	One way to identify the topic is to look for words in the title or heading that are repeated in the passages. I know the topic of this evidence-based argument is **zoos** because it is in the title and it is mentioned several times in the passage. Watch how I highlight the word zoo(s).
	Ask	*Do you see how often the topic is mentioned?*
	Read like a Writer	One way to identify the author's stance is by thinking about the two choices of the issue. For example, one choice might be the positive, or helpful, things about the issue. Another choice might be the negative, or harmful, things about the

	Ask	issue. Watch how I highlight phrases that give clues about what he believes to be true.
	Read like a Writer	*Do you see how the words and phrases are about the negative ways zoos hurt animals?*
	Ask	One way to identify the purpose of the argument is to look at the title and the first and last paragraph. I know the purpose of the argument is to get people to close down zoos. Watch how I highlight phrases in the first and last paragraph that mean the same thing as the title.
	Say	*Do you see how the words and phrases support how zoos are cruel to animals?*
		I can paraphrase this evidence-based argument by saying, "The author's perspective on zoos is that they are cruel to animals and he wants people to close them down so animals can live in the wild."
	Read like a reader	This time I want you to target the author's perspective. Here is another evidence-based argument. I will read it to you and I want you to think about what words and phrases you could highlight to show the topic, the stance, and the purpose for this argument.
	Ask	
	Point to the TSP G.O. Read like a Writer	Zoos: Conserving Animals
		What is the first step?
	Ask	The topic of the argument is….(have student answer)
		How do you know the topic is zoos? (word is in title and repeated)
	Point to the TSP G.O. Read like a Writer	Can you highlight where you see the topic?
		What is the second step?

	Ask	The stance of the argument is… How do you know the author's stance is that zoos conserve animals? Can you highlight words and phrases that give clues to the stance?
	Point to the TSP G.O. Read like a Writer	
		What is the third step?
	Ask	The purpose for the argument is… How do you know the purpose of the argument is that zoos help conserve animals? (title and repeated) Can you paraphrase this evidence-based argument by finishing this sentence, "The author's perspective on zoos is that they are conserving animals and he wants people to donate money so they can keep animals safe." *Do you have any questions about* **Targeting the Author's Perspective***?*
		During Writing
Demonstrate Strategy	Say	Now it's time for us to practice using this strategy by writing our own perspective about zoos.
		After Writing
Evaluate Learning		Tell me what you learned today. Can you tell me the three reasons why learning how to argument important? 1. You learn how to have a conversation. 2. You learn how to think about positives and negatives before you make a choice. 3. You make an informed decision. Can you tell me the three parts of an author's perspective? Topic - What is the author talking about? Stance – What does the author believe? Purpose - Why is the author talking about this topic?

		How did the mentor texts help you learn about writing an evidence-based argument? Thank you for spending some time with me. Here is a paper for your parents so they know what we worked on today.

<u>Parent Letter:</u> During intervention time today, your child worked with me. We played the game, *"Would you rather?"* and talked about the importance of engaging in a conversation to explain their perspective. Thank you for letting me work with your child. If you have any questions, please feel free to email me at jbwise@udel.edu

Target the Author's Perspective
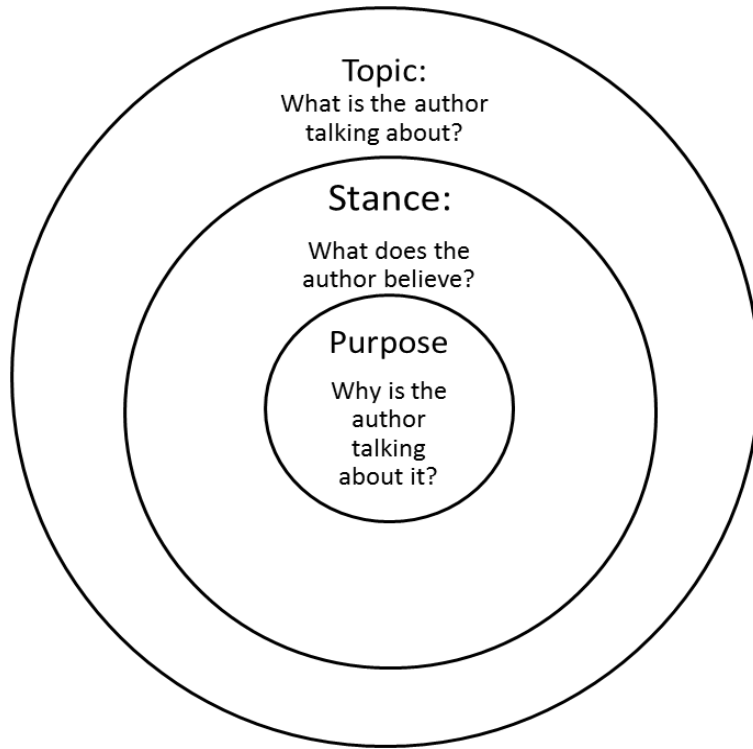
Topic:
What is the author
talking about?

Stance:

What does the
author believe?

Purpose

Why is the
author
talking
about it?

The topic is…

The stance is…

The purpose is…

The author's perspective on_____(topic) is that_____(stance)
because_____(purpose).

Zoos: Cruel or Conserving?

Zoos are popular places for families to visit. It's easy to see why kids and adults enjoy seeing exciting animals from all over the world. But are zoos healthy places for animals? Some people think keeping wild animals in captivity is no longer acceptable. Other people think the efforts of these zoos help animals in the wild. What do you think? Are zoos cruel or conserving animals?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Cruel

1. Some zoos make money by showing tiger cubs, which is stressful for the animals
2. In some places, zoos promote breeding animals irresponsibly
3. Even accredited zoos sometimes keep animals in small enclosures, separated from other animals
4. Animals at zoos often show signs of stress like head bobbing and pacing
5. Not one elephant born in a North American zoo has ever been released back into the wild
6. Some studies have shown that children did not learn much from a trip to the zoo
7. In some places, people even come away from zoos with incorrect information

Conserving

1. Black-footed ferrets, golden lion tamarins, and clouded leopards have all been assisted in zoos
2. Accredited zoos must meet a minimum standard for care
3. Accredited zoos are inspected yearly
4. Many zoos go beyond the minimum requirements to provide animals with indoor and outdoor access
5. More people visit zoos each year than all sporting events combined, which provides zoo staff with the chance to educate many people about animal issues
6. Zoo visitors often donate money to help animals in the wild
7. A white rhino born at Disney's Animal Kingdom Park was transported back to Uganda, where she has had the first white rhinos born in Uganda in decades
8. Researchers use information from zoos to help them make decisions about wild animal

Zoos: Conserving Animals

What do black-footed ferrets, clouded leopards, and golden lion tamarins have in common? All three of these animals are endangered. Some people think zoos are places that put entertainment before conservation. Other people think zoos are places to help save endangered animals. I believe zoos conserve animals by providing a safe place for endangered animals to live.

Visitors to the National Zoo's elephant enclosure will learn all about elephants and the problems they face. More than two million visitors visit the National Zoo each year. They will see displays not only about the 400 species at the National Zoo, but about the native plants and animals that live in the area. In fact, according to the Association of Zoos and Aquariums, more people visit zoos each year than visit all sporting events combined. These visits are an important opportunity to educate people about the issues faced by many animals, including illegal poaching, habitat loss, and climate change.

It's true that zoos of the past were often sad, cruel places for animals. Many different species were kept in small enclosures. Animals did not have enough room to run and explore. However, zoos have made big strides in animal care. Zoos that are accredited by the Association of Zoos and Aquariums must meet minimum standards for animal care. A team of experts inspects these zoos. Many zoos are going beyond the minimum to create healthy homes for animals. For example, the Smithsonian National Zoo recently completed an 8,493 square meter elephant enclosure. Elephants

have indoor and outdoor access, comfortable flooring, and even a quarter-mile walking path for exercise.

From visitor education to wildlife conservation, zoos fill an important role. Zoos are places where people can see wild animals. These visits help people to learn to appreciate the cause of conservation. Saturday visits to the zoo are important family outings where children and adults can learn more about the animals in our world. Zoos are important places because they conserve animals.

Zoos: Cruel to Animals

Zoos are popular places for families to visit. Some people believe zoos help animals. Other people think zoos focus on entertainment and making money. I believe zoos are cruel because wild animals should not be kept in cages.

Visitors often focus on the neat animals on display. They do not see the mistreatment and poor conditions that many animals face. An investigation by the Humane Society of the United States showed that two zoos in Virginia and Oklahoma made thousands of dollars from tiger cub photo sessions. These tiger cubs were separated from their mothers at an early age. People handled tired, hungry, and sick cubs for long hours. People paid to have their pictures taken with the tiger cubs. But what happens to the cubs after the photo sessions are over? After 8 weeks old, the tiger cubs are sold to circuses or roadside zoos with poor animal care.

With wild habitats shrinking and animals becoming endangered, people must act to save animals. However, zoos are not the way to do this. Too many zoos harm animals instead of improving their lives. Zoos should be closed and the animals should be returned to the wild.

Step 2: Examining the Evidence, Plastic Micro-beads: Beautiful or Barbaric?
In this session, students are introduced to the elements of an evidence-based argument that include: introduction, standpoint, evidence, and conclusion. The elements will be explained using a traditionally-printed mentor text. The goal of this session is to model how to *Read like a Writer* using a think-aloud to identify and label each element. The introduction includes a hook to grab the reader's attention; a bridge sentence that acknowledges both sides of the issue; and a standpoint as the thesis statement. Each paragraph starts with one reason and two pieces of evidence. Evidence will be defined as quotes, facts, and examples that support the reason. The conclusion summarizes the argument with a standpoint and a call to action. The prompt provides a rationale for the students to analyze two mentor texts and develop evidence-based writing practices so they can engage in a critical dialogue, ponder evidence, broaden perspectives, and make an informed decision about micro-beads. Are plastic micro-beads beautiful or barbaric?

Essential Questions	
	What are the elements of an evidence-based argument? How does an author use these elements to convey their perspective?

Analyze traditionally-printed text	Plastic Micro-beads: Beautiful or Barbaric?
Read like a reader	focusing on the comprehension of the author's message.
Read like a Writer	identifying the topic, stance, and perspective in an evidence-based argument. identifying the standpoint in a evidence-based argument. identifying evidence in a evidence-based argument.
Crafting elements of an evidence-based argument	What type of evidence is being used? How does this evidence support the standpoint? How does the author present the standpoint? How does the introduction and conclusion work together to create an effective argument?

Gradual Release for Writing	
I DO	Model how to examine evidence for both sides of an issue and write reasons using the sentence frame: *I believe that… because .. For example…*
WE DO	Provide several reason sentences and match evidence to support the reasons. Select other pieces of evidence and write a reason-evidence chain using the sentence frame. Write an evidence-based argument supporting the standpoint that micro-beads are beautiful.
YOU DO	Independently explain the elements of an evidence-based argument. Write a reason that matches the evidence with the sentence frame.

Mastery	
Student will be able to	define the elements of an evidence-based argument. identify the author's perspective in an evidence-based argument. identify the elements in an evidence-based argument. write a standpoint that matches the evidence with the sentence frame.

Verbal Protocol Traditionally-Printed Mentor Text

Step 2: Examining the Evidence, Plastic Micro-beads: Beautiful or Barbaric?

Check	Action	Before Writing
Activate Schema	Say	Let's review what we did yesterday. First we talked about why it is important to learn how to write an evidence-based argument. Can you remember any of the three reasons why it is important? 1. You learn how to have a conversation. 2. You learn how to think about positives and negatives before you make a choice. 3. You make an informed decision. Then we talked about Targeting the Author's Perspective. Do you remember the

		three parts of an author's perspective? (Hint – TSP)
		     Topic - What is the author talking about?
		     Stance – What the author believes to be true?
		     Purpose - Why is the author talking about this topic?

	Say	
		We are going to adjust the game *Would You Rather?* by building a tower and adding the phrase, *"I believe…because…"*. I will give you blocks with two choices and three pieces of evidence for each choice. You have to select the evidence that supports why you would rather make that choice. For example, if I would say, "Would you rather vacation at the beach or in the mountains?" First, you have to read the evidence blocks from both sides to see if there is evidence that you believe is true. You can see the evidence blocks for the beach say, "People at the beach build sandcastles. People at the beach jump waves. People at the beach collect seashells. People at the beach sleep on the sand." You can see the evidence blocks for the mountains say, "People sit by a camp fire and make S'mores. People walk through forest and spot deer. People explore the woods and hike. People go fishing in the creek." Since there are four different pieces of evidence, you need to select the two you believe will support your vacation spot. Then, you might say, "I believe vacationing at the beach is a great place to visit because I can build sandcastles and jump the waves." Or maybe you would rather go to the mountains. Then, you might say, "I believe vacationing in the mountains is a great place to visit because I can make S'mores at the fire and spot deer." Do you have any questions? Ok, let's try it.
	Lay out early/late blocks Say	

	Build a tower with the blocks as student talks through standpoint, reason, evidence
	Layout save/spend blocks
		Would you rather get up early or stay up late?
		(Give examples if student is struggling to come up with a reason)
		   • Early – get up early, happier, more energy, enjoy the sunrise
		   • Late – watch late night TV, finish reading a book, enjoy the sunset

	Say	
		Would you rather save money or spend money? (Give examples if student is struggling to come up with a reason) • Save – in case of emergencies, wait for a bigger present, rich • Spend – get what I want right away, buy presents, poor
	Build a tower with the blocks as student talks through standpoint, reason, evidence	
Background Knowledge	Say	You are really good at examining the evidence, making decisions, and explaining why you believed the evidence supported your perspective. Yesterday we learned that an **evidence-based argument is a problem solving strategy you can use when you have to think about two choices, decide which choice is best for you, and then support your choice by giving reasons why you made the better choice.** Today I want to talk to you about the elements of an evidence-based argument. Remember the goal of an evidence-based argument is to convince me, or the reader, that you made the best choice. The best way to do this is to use four different elements to build a strong argument. The four elements include: • Introduction – An introduction explains the issue by acknowledging both sides of the issue and making a standpoint statement. • Standpoint – A standpoint is a statement that the author believes is true. • Evidence – Evidence is a quote, a fact, or an example that supports your reasons. • Conclusion – A conclusion summarizes the author's perspective by including the standpoint and a call to action. It is important to know the elements of an evidence-based argument, not only so you know what ideas you need to write down, but also to make sure you convey a clear message.
	Lay out the G.O.	
	Say	

		What are the four elements of an evidence-based argument?
Clarify Strategy	Say	Today's strategy is called **Examine the Evidence.** This is a five step process every good author uses when writing an evidence-based argument**:**
	Lay out the strategy sheet	1. Look at the evidence from both sides. 2. Choose a side you would rather defend. 3. Select two pieces of evidence from that side. 4. Write the standpoint why you feel this evidence supports your perspective. 5. Write an I believe…because sentence.
	Say	Before you can write an evidence-based argument, you must examine the evidence to identify what other people believe. Once you have examined the evidence for both sides of the issue, you choose the side you would rather defend. This thinking process is similar to the games we played earlier, *Would You Rather* and *I believe…because*. Next, you want to select the strongest piece of evidence to build the foundation for your evidence-based argument. If you don't have the evidence, you don't have an argument, you only have an opinion. The fourth step requires you to write a standpoint explaining what the evidence is supporting. The final step is to create your introduction by writing the: *I believe…because*. The goal of the **Examine the Evidence** strategy is to make sure your argument is complete and you convey a clear message.
	Lay out Beautiful Say	
		Let's read this evidence-based argument to identify the four elements. I will read it to you and then we will work together to see if we can **Examine the Evidence**.
	Read like a reader	Plastic Micro-beads: Barbaric
	Read like a Writer	
	Say	One way to identify the introduction is to look at the first paragraph. The introduction includes a hook to grab the reader's attention; a bridge sentence that acknowledges both sides of the issue; and a standpoint that states what the author believes. Watch how I highlight the side of the paragraph and write, introduction.
	Ask	

	Read like a Writer	*Do you see how the author's perspective (TSP) is used with the I believe... because standpoint statement?*
	Ask	The next step is to search for the evidence. One way to identify the evidence is to look for quotes, facts, and examples. Once we find the evidence, we should be able to find the reasons. Watch how I highlight quotes, facts, and examples.
		What do you notice about the location of the evidence?
	Read like a Writer	The author uses evidence to support his standpoint. So once you find the evidence, the standpoint will be in the sentence before or the sentence after the evidence. Watch how I read the sentence before and the sentence after to determine the standpoint in this argument.
	Ask	I like to look at the conclusion paragraph to see how the author kept his focus from the beginning to end. One way to identify the conclusion is to look at the last paragraph. The conclusion includes the author's perspective sentence that summarizes the argument and a call to action sentence. Watch how I highlight the side of the paragraph and write, conclusion.
	Say	*Do you see how the words "in conclusion" signal the reader that the author is finishing his argument?*
	Read like a reader	I can paraphrase this evidence-based argument by saying, "The author's perspective on plastic micro-beads is that they are barbaric and he wants people to stop using them so they stay out of our water and out of our food." This time I want you to examine the evidence in the evidence-based argument for the opposite side. I will read it to you and I want you to think about what words and phrases you could highlight to show the four elements of this argument.
	Ask	
	Point to the G.O.	
	Read like a Writer	

		Plastic Micro-beads: Beautiful
		What is the first element?
	Ask	
	Point to the G.O.	The introduction the argument is located….(in the first paragraph)
	Read like a Writer	What phrases do you notice in the introduction? (hook, bridge, standpoint)
		Can you highlight where you see the introduction?
		What is the second element?
	Ask	
	Point to the G.O.	The standpoint for the argument is…
	Read like a Writer	What words or phrases did the author use to help you identify what they believe to be true?
		Does the evidence support the reason? (yes/no)
	Ask	
	Point to the G.O.	*What is the third element?*
	Read like a Writer	The evidence for the argument is…
		What types of evidence did the author use? (quote, fact, example)
	Ask	
	Point to the G.O.	*What is the fourth element?*
	Read like a Writer	The conclusion of the argument is…
		Did the author keep his focus?
		Can you highlight words and phrases that give clues to the conclusion?
		Can you paraphrase this evidence-based argument by summarizing the author's perspective?
		"The author's perspective on _____ is that they are _____ and he wants _____."
		Do you have any questions about **Examining the Evidence**?
		During Writing

Demonstrate Strategy	Say	Now it's time for us to practice using this strategy by writing our own evidence-based argument about this topic.
		After Writing
Evaluate Learning	Say	Tell me what you learned today. Can you tell me the four elements of an evidence-based argument? • Introduction – An introduction explains the issue by acknowledging both sides of the issue and making a standpoint statement. • Standpoint – A standpoint is a statement that the author believes is true. • Evidence – Evidence is a quote, a fact, or an example that supports your reasons. • Conclusion – A conclusion summarizes the author's perspective by including the standpoint and a call to action. Can you tell me what each element does? How did the mentor texts help you learn about writing an evidence-based argument? Thank you for spending some time with me. Here is a paper for your parents so they know what we worked on today.

Parent Letter: During intervention time today, your child worked with me. We reviewed why it is important to learn how to write an evidence-based argument and how to identify the author's perspective. We played the game, *"I believe…. because…?"* and talked about the importance of including all four elements in an evidence-based argument. Thank you for letting me work with your child. If you have any questions, please feel free to email me at, jbwise@udel.edu

Plastic Micro-beads: Beautiful or Barbaric?

Plastic micro-beads are used in cosmetics, toothpaste, and cleaning products. They are smooth and tiny pieces of plastic that are used for cleaning. If you have seen a clear bottle of soap containing tiny, colorful beads, you've seen micro-beads. But what happens to these colorful items after they go down the drain? Many environmentalists claim that these beauty products are causing environmental problems. What do you think? Are plastic micro-beads beautiful, or barbaric?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Beautiful

1. Plastic micro-beads are gentler for scrubbing than natural products like sea salt or baking soda
2. Plastic micro-beads are made from polyethylene plastic, which is safe for use in products
3. Micro-beads help to exfoliate skin--in other words, they scrub away dead skin cells and help to make skin smoother
4. Many water systems have filters that can filter out micro-beads
5. Micro-beads provide "an enjoyable use experience" for consumers
6. Reformulating products to eliminate micro-beads is a time-consuming and expensive process
7. Micro-beads are cheaper than other natural scrubbers, like apricot seeds and coconut husks

Barbaric

1. Most plastic micro-beads go through wastewater treatment plants and flow into rivers and streams, and then go on to the ocean
2. Many studies have shown that the micro-beads have no cleaning benefit
3. Plastic micro-beads are small enough to pass through a coffee filter, so most are not filtered at the wastewater treatment plant
4. Plastic micro-beads are eaten by animals like fish, interfering with digestion and nutrition
5. In a study, around 35% of 670 fish studied were found to have micro-plastics in their stomachs
6. Approximately 19 tons of micro-beads may be washing into New York's water each year
7. Plastic micro-beads have been found in the Great Lakes since 2012
8. Plastic micro-beads eaten by fish and other creatures could continue up the food chain and even be eaten by people
9. Many states and some countries have already banned micro-beads or are planning to do so

Examine the Evidence

1. Look at the evidence from both sides.
2. Choose a side you would rather defend.
3. Select three pieces of evidence from that side.
4. Write the reason why you feel this evidence supports your perspective.
5. Write an *I believe…because* sentence.

Author's Perspective
Remember your perspective guides your argument choices.

Topic:
What is the author talking about?

Stance:
What does the author believe?

Purpose
Why is the author talking about it?

Elements of an Evidence-based Argument

1. Introduction:
   - Topic Sentence/Hook: *fact, definition, question*
   - Bridge Sentence, *Some people think, Others think*
   - Claim Sentence
2. Claim:
   - *I believe… because….*
3. Evidence:
   - A quote, a fact, or an example
   - *According to/believes*
   - *Furthermore/states*
   - *Finally/suggests that*
4. Conclusion:
   - *Author's perspective sentence*
   - *A call to action, What do you want people to do*

Examine the Evidence

Introduction		
Claim		
Reason		
Evidence		
Conclusion		

Plastic Micro-beads: Beautiful

Plastic micro-beads are tiny balls of plastic about the size of a piece of sand. They are used in personal care products like face washes, sanitizers, and body wash to help scrub your skin clean. Some people think micro-beads end up in the ocean and kill coral. Other people think micro-beads are safe scrubbers to keep us clean. I believe plastic micro-beads are beautiful because my skin stays soft and pimple-free.

For example, micro-beads help to exfoliate skin by scrubbing away dead skin cells to make skin smoother. Plastic micro-beads are gentler for scrubbing than natural products like sea salt or baking soda. Furthermore, micro-beads are cheaper than other natural scrubbers, like apricot seeds and coconut husks.

Although some people believe micro-beads are small enough to pass through a coffee filter, many water systems have filters that can catch the micro-beads. The evidence shows that micro-beads are a beautiful invention that helps keep everyone clean and looking their best.

Plastic Micro-beads: Barbaric

Plastic micro-beads are tiny balls of plastic about the size of a piece of sand. They are used in personal care products like shampoo, hand soaps, and toothpaste to help scrub your teeth clean. Some people think micro-beads get into the streams and kill fish. Other people think micro-beads are safe scrubbers to keep us clean. I believe plastic micro-beads are barbaric because the water is getting polluted.

For example, micro-beads are small enough to pass through a coffee filter, so most are not filtered at the wastewater treatment plant. They enter the water like streams, lakes and the ocean and attract toxic and dangerous chemicals like DDT and PCBs and more. Then the fish think the micro-beads are food, and they eat the toxic plastic. This was shown by a study that found 35% of 670 fish had micro-plastics in their stomachs.

Another reason, many studies have shown that the micro-beads have no cleaning benefit. Natural scrubbers like ground up seeds, shells, salts, sugar, baking soda, rice, bamboo or other natural ingredients can replace them.

We can have clean skin and teeth and keep the water clean. Therefore, I conclude that we should get rid of micro-beads because out of endangered marine life and our food.

Step 3: Reading Like a Writer, Milk: Healthy or Harmful?
In this session, students will review the author's perspective and elements of an evidence-based argument through labeling a traditionally-printed mentor text. Each step in *Read like a Writer* will be explained again. The goal of this session is to model how to *Read like a Writer* using a think-aloud to identify and label each element. The instructor and student will work together to plan and write a evidence-based argument by selecting evidence and creating a claim to support the student's perspective. Writing an introduction and a conclusion paragraph will follow. The prompt provides a rationale for the students to analyze two mentor texts and develop evidence-based writing practices so they can engage in a critical dialogue, ponder evidence, broaden perspectives, and make an informed decision about milk. Is milk healthy or harmful??

Essential Questions	
	How does **Reading like a Writer** help me become a better writer?

Analyze traditionally-printed text	*Milk: Healthy or Harmful?*
Read like a reader	focusing on the comprehension of the author's message.
Read like a Writer	identifying the topic, stance, and perspective in an evidence-based argument. identifying the claim and evidence in a evidence-based argument. identifying the instruction and conclusion in a evidence-based argument.
Crafting elements of an evidence-based argument	What type of evidence is being used? How does this evidence support the claim? How does the author present the claim? How does the introduction and conclusion work together to create an effective argument?

Gradual Release for Writing	
I DO	Model how to annotate double-sided journal to scaffold students' ability to generate an introduction and conclusion paragraph. (Mentor text on one side, student's own ideas on the other side)
WE DO	Write a evidence-based argument supporting the claim that milk is healthy.
YOU DO	Independently explain the elements of a evidence-based argument. Write an introduction and conclusion that matches the evidence with the sentence frame.

Mastery	
Student will be able to	summarize the topic, stance, and point of view in the mentor text. identify four elements in a mentor text. describe their perspective for their own an evidence-based argument. brainstorm the four elements for their own an evidence-based argument write an evidence-based argument using the template.

Verbal Protocol Traditionally-Printed Mentor Text

Step 3: Reading Like a Writer, Milk: Healthy or Harmful?

Check	Action	Before Writing
Activate Schema	Say	Let's review what we did yesterday. First we talked about the four elements of an evidence-based argument. Can you remember any of the four elements and what they do? • Introduction – An introduction explains the issue by including a hook to grab the reader's attention; a bridge sentence that acknowledges both sides of the issue; and a claim as the thesis statement • Claim – A claim is a statement that the author believes is true. • Evidence – Evidence is a quote, a fact, or an example that supports your claim. • Conclusion – A conclusion summarizes the author's perspective by including the claim and a call to action. Then we talked about **Examining the Evidence**. Do you remember the five-step process when writing an evidence-based argument? (Hint – what is the first thing you should read before you write an argument) 1. Look at the evidence from both sides. 2. Choose a side you would rather defend. 3. Select two pieces of evidence from that side. 4. Write the claim that states why you feel this evidence supports your perspective. 5. Write an *I believe…because* sentence. We are going to play a new game today called *Minute to Win it*. This time I will give you the four element blocks in an argument and you need to build it on this graphic organizer. The goal is to read each block and place it on the correct
	Lay out Homework element blocks & G.O. Say	

		element within a minute. As you can see, the graphic organizer is divided in half. This means you will build an argument for each side of the issue. For example, this issue is about Homework: Helpful or Harmful. When I select a block says, "Students do homework to practice what they learned at school. Some people think kids get too much homework. Others think homework will make students smarter. I believe we should have a break from homework this week because there are a lot of away games." I know this is the introduction paragraph because it has a hook, a bridge sentence, and a claim. I will place the block on the graphic organizer in the beginning because this block introduces the argument to the stance. I will also place the block on the side of the argument that says, "Homework is harmful" because this paragraph supports that perspective. After you build all four elements of the argument, I will stop the timer and see if you had a *Minute to Win it*. (The other blocks will say, "For example, we could do homework on the bus. Some people try to work on the bus, but it's hard to write because it shakes. Another reason to give us a break is because some people feel sick reading on the bus. Therefore, I conclude that homework will cause more harm than help us learn. Please consider giving us a break from homework this week.) Do you have any questions? Ok, let's try it.
Background Knowledge	Say Lay out strategy sheet	You are really good at organizing the elements of an evidence-based argument. Yesterday we learned that an evidence-based argument has four different elements that include: introduction, claim, evidence, and a conclusion. We also practiced writing the claim and evidence. **Today I want to talk to you about the introduction and the conclusion of an evidence-based argument.** Remember the goal of an evidence-based argument is to convince me, or your reader, that you made the best choice. The best way to do this is to have a clear introduction and a strong conclusion. The introduction should include: 1. Introduction: • Topic Sentence • Bridge Sentence, *Some people think, Others think* • Claim Sentence

	Say	2. Conclusion:
		   • *Author's perspective sentence*
		   • *A call to action, What do you want people to do*
		It is important that you know how to write an introduction and a conclusion of an evidence-based argument, not only so you know what ideas you need to write down, but also to make sure your ideas are organized and focused.

	Ask	*What are the parts of the introduction and conclusion paragraph in an evidence-based argument?*

Clarify Strategy	Say
	Point to the strategy sheet
		Today's strategy is called **Read like a Writer,** and this strategy has three steps**:**
		1. Skim through the text to notice the author's style.
		2. Do a close reading of the element you are writing.
		3. Ask yourself what you could use in your writing:
		   • Look at the way the introduction/conclusion.
		   • Look at the topic sentence in each paragraph.
		   • Look at the transition words in the beginning of sentences.

	Say	Sometimes an author has difficulty generating ideas, organizing their ideas, or the words don't convey a clear message. One strategy authors use to help them when writing is to read what other people think. This type of reading is different then the reading you might do for other classes. For example, in language arts class you might read for fun or entertainment with a novel. When you are reading in science or social studies, you might read for information in a textbook. When you read in math, you might read to solve a problem. However, when you **Read like a Writer**, you are reading to notice the tricks the author used to help you write better. Today we are going to learn how to **Reading like a Writer** will help us write an introduction and a conclusion paragraph. Let's read this evidence-based argument to identify the parts of an introduction and conclusion. I will read it to you and then we will work together to see if we can **Read like a Writer**.
	Read like a Writer	Milk: Healthy or Harmful? (Skim the first sentence of each paragraph).

	Say	Since we are working on our introduction, where do we want to read closely? That's right, you learned yesterday that the first paragraph is the introduction and it includes a hook to grab the reader's attention (topic sentence); a bridge sentence that acknowledges both sides of the issue; and a claim statement. What do you notice about this introduction? What tricks does the author use that you want to use in your writing? Watch how I take notes by writing down the words/phrases that I want to try. Now, I can try out those words/phrases in my introduction to see if they help me convey a strong evidence-based argument.
	Ask	
	Read like a Writer	*Tell me how **Reading like a Writer** can give us tricks to use in our own writing?*
		Now we will work on the conclusion, where do we want to read closely? Correct, you learned yesterday that the last paragraph is the conclusion and includes the author's perspective sentence that summarizes the argument and a call to action sentence. Watch how I take notes by writing down the words/phrases that I want to try. Now, I can try out those words/phrases in my conclusion to see if they help me convey a strong evidence-based argument.
	Ask	
	Ask	*Tell me how the **Reading like a Writer** can give us tricks to use in our conclusion?*
		*Do you have any questions about **Reading like a Writer**?*
		During Writing
Demonstrate Strategy	Say	Now it's time for us to practice using this strategy by writing our own evidence-based argument about this topic.
		After Writing

Evaluate Learning	Say	Tell me what you learned today. Can you tell me the parts of an introduction and conclusion paragraph?
		 1. Introduction:
		     a. Topic Sentence
		     b. Bridge Sentence, *Some people think, Others think*

| | | c. Claim Sentence
2. Conclusion:
    a. *Author's perspective sentence*
    b. *A call to action, What do you want people to do*
Can you tell me why **Reading like a Writer** helps you convey a clearer message?
How did the mentor texts help you learn about writing an evidence-based argument?
Thank you for spending some time with me. Here is a paper for your parents so they know what we worked on today. |

Parent Letter: During intervention time today, your child worked with me. We reviewed the four elements of an evidence-based argument and how to Examine the Evidence. We played the game, *Minute to Win it* and talked about the importance of **Reading like a Writer** when writing an evidence-based argument. Thank you for letting me work with your child. If you have any questions, please feel free to email me at, jbwise@udel.edu

Milk: Healthy or Harmful?

Everyone has seen the commercials showing that milk does a body good. But is it really necessary for a healthy diet? Those in favor of milk explain that it contains many important nutrients. Those against milk show the negative aspects of drinking milk and that other foods can contain the same nutrients. What do you think? Is milk healthy or harmful?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Healthy

1. Milk is a good source of many nutrients
2. Three servings of milk each day are recommended for adults
3. Milk is a more convenient way to get certain nutrients than other foods
4. To get same calcium as in milk, would need 5.3 cups of leafy greens
5. Milk is a good source of protein
6. For picky eaters, milk is a good source of calories and protein
7. Milk is fortified with Vitamin D, an important nutrient hard to get from other foods
8. A study has shown that children who drink plain or flavored milk do not have a higher weight than children who do not drink milk
9. In the same study, children who drank milk consumed more important nutrients like calcium, Vitamin A, and potassium

Harmful

1. Other foods provide the same nutrients as milk
2. Most people in the world do not drink milk after childhood
3. Calcium can keep the body from absorbing iron, so too much milk can lead to anemia
4. Milk can make kids feel full, leaving them with less of an appetite for other healthy foods
5. One gallon of milk takes 880 gallons of water to produce
6. Ounce for ounce, milk has the same calorie load as soda
7. A milk allergy affects 1.3 million children, making milk allergies the second most common food allergies
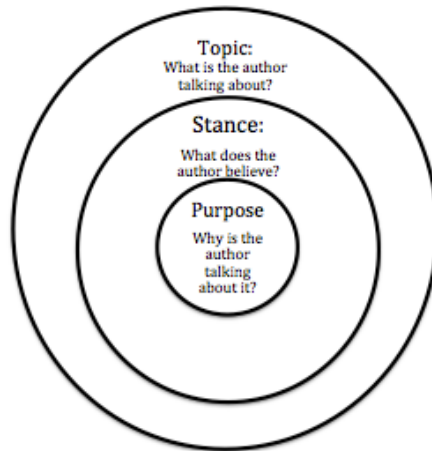8. Leafy greens, seafood, and legumes also contain calcium

Minute to Win it

Elements		
Introduction		
Claim		
Evidence		
Conclusion		

Read like a Writer

1. Skim through the text to notice the author's style.
2. Do a close reading of the element you are writing.
3. Ask yourself what you could use in your writing:
   - Look at the way the introduction/conclusion.
   - Look at the topic sentence in each paragraph.
   - Look at the transition words in the beginning of sentences.

Author's Perspective
Remember your perspective guides your argument choices.

Topic: What is the author talking about?

Stance: What does the author believe?

Purpose Why is the author talking about it?

Topic sentence, Some people think…Other people think…I believe that… because .. For example Another reason… Additionally, According to/believes, Furthermore/states, Finally/suggests that
Therefore, I conclude that

Examine the Evidence

1. Look at the evidence from both sides.
2. Choose a side you would rather defend.
3. Select three pieces of evidence from that side.
4. Write the reason why you feel this evidence supports your perspective.
5. Write an *I believe…because* sentence.

Elements of an Evidence-based Argument

1. Introduction:
   - Topic Sentence/Hook: *fact, definition, ask a question*
   - Bridge Sentence, *Some people think, Others think*
   - Claim Sentence
2. Claim:
   - *I believe… because….*
3. Evidence:
   - A quote, a fact, or an example
   - *For example, According to/believes, Furthermore/states, Finally/suggests that*
4. Conclusion:
   - *Author's perspective sentence*
   - *A call to action, What do you want people to do*

Read Like A Writer

Introduction

Claim

Evidence

Conclusion

Introduction

Claim

Evidence

Conclusion

Milk is Harmful for Many People

Milk is one of the most popular drinks in the United States. On one hand, some say milk contains many important nutrients. On the other hand, many feel drinking milk may do more harm to our bodies than good. I believe milk is not necessary and even harmful to many people.

After ages 8, 65% of the people on Earth, are lactose intolerant. Most people, can't actually drink milk. Of those, most trace their ancestry back to Europe or Africa where those gene mutations occurred. Even still a dairy allergy, which is not lactose intolerance, is one of the most commonly reported food allergies just below peanut allergies. Milk can cause bloating, constipation, acid reflux, and has been clinically connected to increased mucus generation, congestion, sinus problems, migraines, increased eczema, and joint pain. It's doing a body good.

Whether you're lactose tolerant or not, is milk actually a healthy beverage? Well, let's look at the biggest selling point: calcium. We are told milk builds strong bones. In fact, several studies show that when it comes to building stronger bones, calcium intake is only a small part of the equation, along with genetics, life style, and getting enough Vitamin D from exposure to the sun. Calcium is definitely important for kids and adults but milk isn't the only source. You can also get it from fish, beans, greens, almonds, oranges, lettuce, seeds, and a lot of other places.

So drinking milk for enjoyment is one thing but drinking milk for the calcium or for health reasons is not true. In the future, if you are thirsty, grab a big class of water.
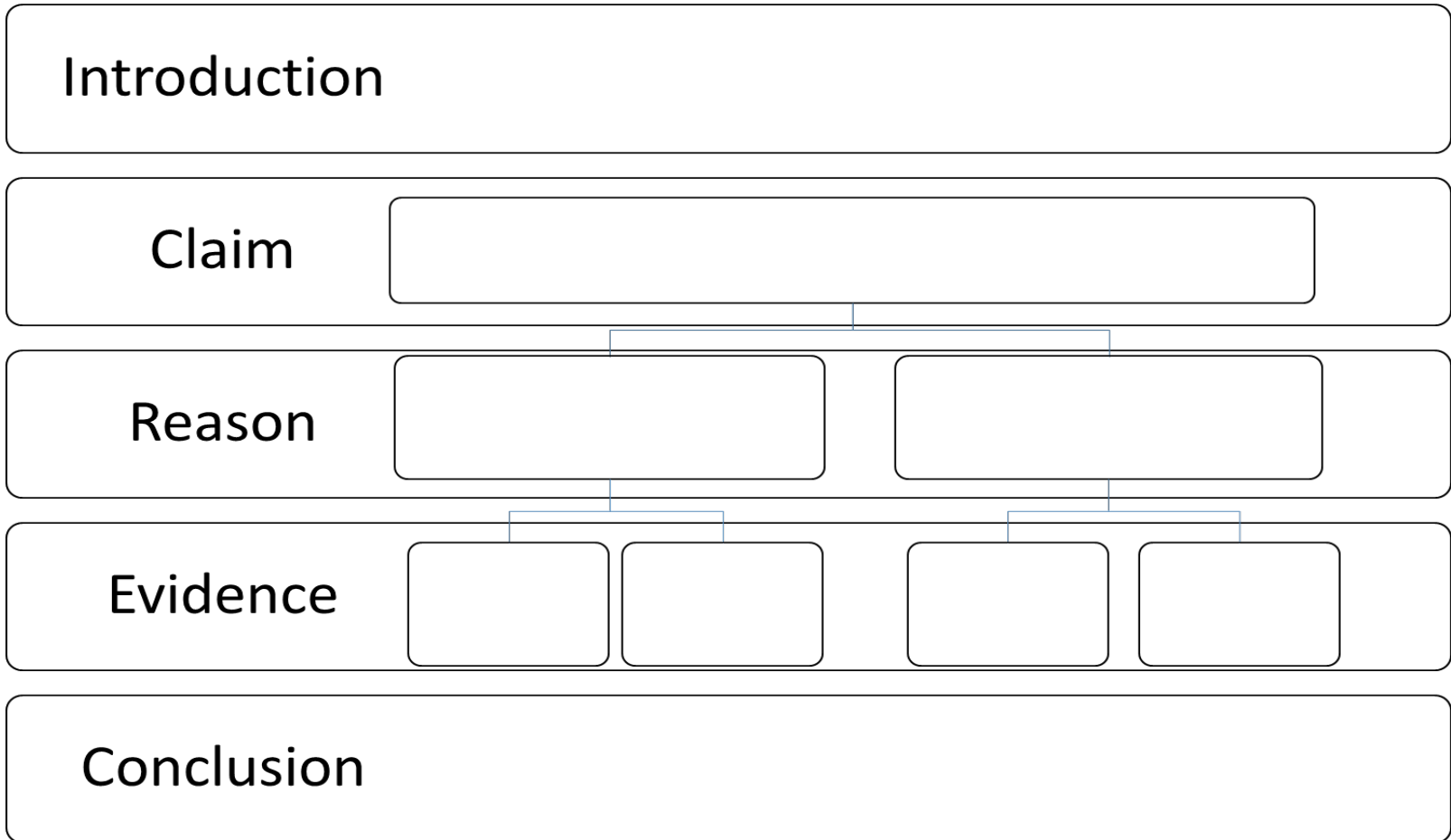
Milk is Healthy: It does a Body Good

Milk is one of the most popular drinks in the United States. On one hand, some say milk contains many important nutrients. On the other hand, many feel drinking milk may do more harm to our bodies than good. I believe that milk provides important nutrients because growing children need calcium to help build strong bones.

For example, milk is a good source of important nutrients. For picky eaters, milk is a good source of calories and protein. Additionally, Milk is fortified with Vitamin D, an important nutrient hard to get from other foods. A recent study has found children who drink milk consumed more important nutrients like calcium, Vitamin A, and potassium.

According to experts, many people cannot safely drink milk from cows. In some cases, people are allergic to or intolerant of lactose, a natural sugar present in the milk of cows. Dietary and allergy issues have led to the development of an assortment of other types of milks made from plant sources including soymilk, rice milk, coconut milk, almond milk, and cashew milk. While it might be true that plant-based milks tend to have fewer calories, less fat, and cholesterol than dairy milk, many lack the vitamins and other nutrients found in dairy milk.

Milk is fortified with many nutrients that are hard to get from other foods. Even through1.3 million children have a milk allergy; there are medicines like Lactaid that help them digest the milk. Drinking 3 servings of milk a day is worth it!

Examine the Evidence

Introduction		
Claim		
Reason		
Evidence		
Conclusion		

Step 4: Extend the Conversation, Daylight Saving Time: Worth It or Worthless?

In this session, students are asked to recall the elements in an evidence-based argument and the strategies of Target the Author's Perspective, Examine the Evidence, and Reading like a Writer. The goal of this session is to model how to use the *Read like a Writer* strategy to help plan and expand the paragraphs with reasons, evidence, and tie-in sentences. The reason restates the position by providing examples. Evidence is defined as information from other sources. A tie-in is defined as explaining how the evidence supports the reason. The prompt provides a rationale for the students to analyze two mentor texts and develop evidence-based writing practices so they can engage in a critical dialogue, ponder evidence, broaden perspectives, and make an informed decision about Daylight Saving Time. Is Daylight Saving Time: Worth It or Worthless?

Essential Questions	
	What are tie-in sentences in an evidence-based argument?
	Why does an author use reasons and evidence evidence-based argument?
	How does an author use a tie-in sentence to strengthen an evidence-based argument?

Analyze traditionally-printed text	*Daylight Saving Time: Worth It or Worthless?*
Read like a reader	focusing on the comprehension of the author's message.
Read like a Writer	identifying the topic, stance, and perspective in an evidence-based argument.
	identifying the claim in an evidence-based argument.
	identifying evidence in an evidence-based argument.
Crafting elements of an evidence-based argument	How does the author present the reasons?
	What type of evidence is being used?
	How does the tie-in sentence explaining how the evidence supports the reason?
	How does the introduction and conclusion work together to create an effective argument?

Gradual Release for Writing	
I DO	Model how to take evidence and write a counterclaim using the sentence frame: *While it might be true that.... many......*
WE DO	Provide several counterclaims and discuss how it supports the rigorous or ruin claim. Select another pieces of evidence and write a counterclaim using the sentence frame. Write an evidence-based argument supporting the claim that daylight saving time is worth it.
YOU DO	Independently write a counterclaim with the sentence frame.

Mastery	
Student will be able to	summarize the elements of an evidence-based argument. summarize the topic, stance, and purpose in an evidence-based argument. plan and expand a paragraph with reasons, evidence, and tie-in sentences.

Verbal Protocol Traditionally-Printed Mentor Text

Step 4: Extend the Conversation, Daylight Saving Time: Worth It or Worthless?

Check	Action	Before Writing

Activate Schema	Say	Let's review what we did yesterday. First, we talked about why it is important to have an organized introduction and a strong conclusion in your an evidence-based argument. Can you tell me the parts of an introduction and conclusion paragraph?
		
		1. Introduction:
		    a. Topic Sentence
		    b. Bridge Sentence, *Some people think, Others think*
		    c. Claim Sentence
		2. Conclusion:
		    a. *Author's perspective sentence*
		    b. *A call to action, What do you want people to do*
		
		Can you tell me why **Reading like a Writer** helps you convey a clearer message?

Background Knowledge	Say
	
	Lay out strategy sheet
		You are really becoming an expert at thinking through the problem solving strategy of an evidence-based argument. You can think about two choices, decide which choice is best for you, and then support your choice by giving claims, and evidence for why you made the better choice. **Today I want to talk to you about the reason paragraphs in an evidence-based argument.** Remember the goal of an evidence-based argument is to convince me, or the reader, that you made the best choice. The best way to do this is to use paragraphs that include reasons, evidence, and a tie-in sentence.
		
		1. Reason:
		    a. *Restates the position by providing examples that the reader may value.*
		2. Evidence:
		    a. *Positive or negative information from other sources to support your claim.*

		3. A tie-in:
		a. *Explaining how the evidence supports the reason. Tell the reader why you need to convince them?*
	Ask	Can you tell me why **reason paragraphs** helps you convey a stronger argument? It is important to know how to use reason paragraphs in an evidence-based argument, not only so you know what ideas you need to write down, but also to make sure you tell the reader that you have already thought about their perspective.

What are the parts of a reason paragraph in an evidence-based argument? |
| Clarify Strategy | Say

Lay out Ruin
Say

Read like a reader
Say

Ask

Say

Read like a writer | The goal of the **reason paragraph** strategy is to make sure you identifying values that the reader may have and then using evidence to offer positive or negative information to support your claim. The tie-in sentence explains how the evidence supports the reasons. This makes the essay more persuasive.
Let's read this evidence-based argument to identify the three parts of a reason paragraph. I will read it to you and then we will work together to see if we can **identify the reasons, positive/negative information, and tie-in sentence**.

Daylight Saving Time: Worthless?
One way to identify the reason paragraph is to look at the middle of the essay. The introduction has a counterclaim that acknowledges both sides of the issue. Watch how I highlight the reasons. The counterclaim is also used in the third or fourth paragraph. The conclusion paragraph can sometimes have a counterclaim as well.

What do you notice about the location of the reasons?
Tell me how the reasons are used to make the argument stronger?

This time I want you to examine the reason paragraph in the evidence-based argument for the opposite side. I will read it to you and I want you to think about what words and phrases you could highlight to show the reason paragraphs of this argument. |

	Ask	**Daylight Saving Time: Worthless?**
	Ask	*The reason sentence is in the ….(beginning of each reason paragraph)* *What words or phrases did the author use to help you identify the reason sentence?*
	Ask	*The positive/negative information is…. (used in the middle of each reason paragraph)* *What words or phrases did the author use to help you identify the positive/negative information?*
	Ask	*The tie-in sentence is… (used at the end of each reason paragraph)* *What words or phrases did the author use to help you identify the tie-in?* *Can you paraphrase this evidence-based argument by summarizing the author's perspective, "The author's perspective on _____ is that they are _____ and he wants _____."* *Do you have any questions about creating a reason paragraph?*
		During Writing
Demonstrate Strategy	Say	Now it's time for us to practice using this strategy by writing our own reason paragraph in our evidence-based argument about this topic.
		After Writing

Evaluate Learning	Say	Tell me what you learned today.
		Can you tell me the three parts of a reason paragraph?
		   1. Evidence:
		      • <u>Reasons of value</u>: *One reason, Another reason, Additionally…*
		      • <u>Positive/Negative Information</u>: A quote, a fact, or an example – *For example, According to/believes, Furthermore/states, Finally/suggests that*

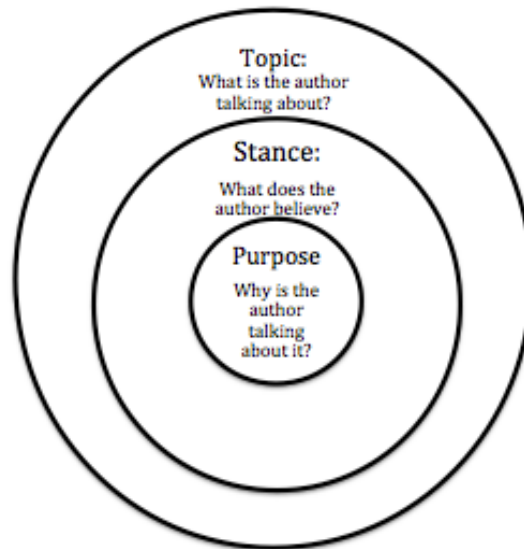| | | • <u>Tie-In Sentence:</u> Explain how you convinced your reader |
		Can you tell me why it is important to write a reason paragraph with these three parts?
		How did the mentor texts help you learn about writing an evidence-based argument?
		Thank you for spending some time with me. Here is a paper for your parents so they know what we worked on today.

<u>Parent Letter:</u> During intervention time today, your child worked with me. We reviewed the parts of a reason paragraph and how to *Read like a Writer*. We talked about the importance of **including reasons of value, positive/negative information, and a tie-in sentence** when writing an evidence-based argument. Thank you for letting me work with your child. If you have any questions, please feel free to email me at, jbwise@udel.edu

Read like a Writer

1. Skim through the text to notice the author's style.
2. Do a close reading of the element you are writing.
3. Ask yourself what you could use in your writing:
    - Look at the way the introduction/conclusion.
    - Look at the topic sentence in each paragraph.
    - Look at the transition words in the beginning of sentences.

Author's Perspective

Remember your perspective guides your argument choices.

Examine the Evidence

1. Look at the evidence from both sides.
2. Choose a side you would rather defend.
3. Select two pieces of evidence from that side.
4. Write the reason why you feel this evidence supports your perspective.
5. Write an *I believe…because* sentence.

Elements of an Evidence-based Argument

1. Introduction:
    - Topic Sentence/Hook, *fact, definition, ask a question,*
    - Bridge Sentence, *Some people think, Others think*
    - Claim Sentence
2. Claim:
    - *I believe… because….*
3. Evidence:
    - Reasons of value: *One reason, Another reason, Additionally…*
    - Positive/Negative Information: A quote, a fact, or an example – *For example, According to/believes, Furthermore/states, Finally/suggests that*
    - Tie-In Sentence: Explain how you convinced your reader
4. Conclusion:
    - *Author's perspective sentence*
    - *A call to action, What do you want people to do*

Topic sentence, Some people think…Other people think…I believe that… because .. For example Another reason… Additionally, According to/believes, Furthermore/states, Finally/suggests that
Therefore, I conclude that

Daylight Saving Time: Worth It or Worthless?

Twice a year, most Americans change their clocks. We fall back in the autumn and spring ahead each spring. Daylight Saving Time is supposed to help lengthen days. But critics say that these time changes are unnecessary. Is daylight savings time worth it, or worthless?

What do you think?
- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Worth It

1. During Daylight Saving Time, clocks are moved so that there is more daylight in the evening hours, instead of in the early morning when most people are not awake
2. Daylight Saving Time allows people more time in the evenings after school and work to exercise, enjoy outdoor time, or participate in sports
3. Gas and grill businesses like Daylight Saving Time because more people grill outside, causing them $200 million more in sales
4. In Britain, a study showed that children's activity levels rise 15 to 20 percent during the summer and dip again when clocks are turned back
5. The number of pedestrian and bicycle deaths decrease during Daylight Saving Time, probably because of longer daylight hours
6. Daylight Saving Time results in energy savings of 1.3 terawatt-hours, or 0.03%, each year
7. Every state in the United States except Arizona and Hawai'i participates in DST

Worthless

1. Matthew Kotchen, economist at the University of California, found that energy use actually rose by 1% during daylight savings time in Indiana
2. A German scientist has found that changing clocks back and forth interferes with people's natural body rhythms, interfering with their sleep
3. There are spikes in workplace accidents after Daylight Saving Time
4. Daylight Saving Time causes problems with transportation routes because some countries participate and some don't; some estimates claim that it takes airlines $147 million to line up the schedule change with international routes
5. Farmers dislike Daylight Saving Time because they have less time in the busy summer mornings to pick crops and get them to harvest
6. When Daylight Saving Time begins, many children go to school in the dark

Read Like a Writer

Introduction	
Claim	
Evidence	
Conclusion	

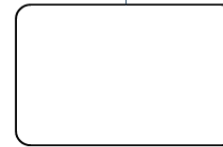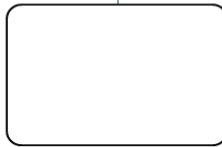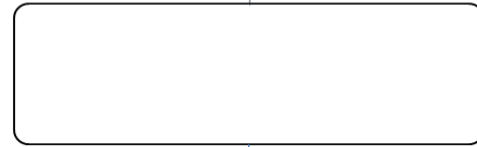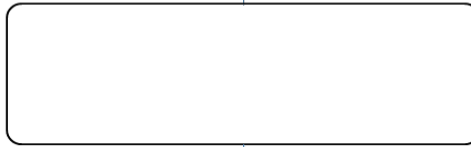| Introduction	
Claim	
Evidence	
Conclusion	
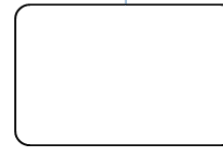
Introduction

Claim

Reason

Evidence

Conclusion

Daylight Savings Time is Worth It!

Daylight Savings time has been practiced in the U.S. for about 100 years. During the autumn, the clocks are dropped back an hour, and in the spring, clocks are moved forward one hour. This is done in order to maximize the availability of natural sunlight throughout the year. In order to minimize disruption in routines, the time change occurs at 2 a.m. on a Sunday morning when the majority of individuals are asleep.

Years ago, back in the 19th century before electricity was a common installment in households and businesses, the idea of Daylight Savings time was conceived. While in modern time, the changing of the clocks is often linked to energy conservation, historically the philosophy behind Daylight Savings time is rooted in economics. Adding an extra hour of sunlight to the day meant higher production, with more daylight during a business' operational hours people could work longer and then have more time after they finished their duties to shop at other businesses.

Nowadays Daylight Savings time is most often linked to energy. While this sounds positive, there are also some disadvantages to the practice of changing the clocks twice a year. Here are a few of the top advantages of Daylight Savings time:

• Electricity Conservation: The U.S. Department of Transportation determined that electricity usage in the U.S. is cut by 1 percent daily thanks to Daylight Savings time. In this age of going green, this level of electricity savings is significant. Although some estimate the savings is a bit less at half a percent, but still a savings.

• Maximize Natural Daylight: By the clocks "falling behind" an hour in the autumn and "springing ahead" the hour in the spring, this helps maximize natural daylight by aligning the clock with the sunrise and sunset. For workers this makes for a more pleasant commute and for children, this increases safety for children who otherwise might be traveling to school in the dark during the winter mornings.

Moreover, reports and statistics are emerging which indicate that accidents could be reduced with longer daylight hours; in this respect changing the clocks would be an advantage if less accidents were to occur.

• Health Effects: Many in favor of Daylight Savings time argue that changing the clock on a biannual basis is beneficial to health. With extra daylight artificially built into the day, people might be more inclined to exercise and engage in activities which keep them moving, rather than going home because its dark and as an alternative opting for more sedentary activities.

While it is true people can still go to the gym during the "dark months", where it is artificially lighted during, club memberships can be expensive, and other forms of exercise are free, but not optimal for darkness. Economically people are more likely to engage in free forms of exercise, but this means several months of the year individuals might be less active.

• Business Benefits: For some industries commercial sales increase with the time changes. Businesses such as retail, sports, those associated with tourism, and other companies often find their sales increase when the hours after work are lengthened because people are more inclined to engage in shopping or recreational activities.

In this respect, Daylight Savings time benefits everyone because the economy is stimulated, and this has a ripple effect on the job market as well. If business is too slow, companies may be more inclined to do a higher percentage of seasonal layoffs.

Daylight Savings Time is Worthless!

Clocks will be "falling back" an hour this Sunday, marking the end of daylight saving time (DST) and the beginning of an old debate as to whether the practice should be continued. Although some people relish the opportunity to gain an extra hour of sleep every fall, many Americans don't see the necessity in adjusting their clocks — and their schedules — twice a year. With so much opposition to DST, here are a few reasons why it might be time to stop changing the clocks.

1. An unpopular tradition: The main argument against daylight saving time is simple: People don't like to do it. According to a <u>Rasmussen report</u> from March of 2013, only 37 percent of Americans believe that DST should continue, while 45 percent said that the practice was pointless and was not "worth the hassle."

2. Farmers: Much of the argument for maintaining DST lies in the belief that the practice is beneficial to farmers. However, the changing hours have little to no effect on the daily tasks required on a farm, according to Hillary Barile, partner at Rabbit Hill Farms, of Shiloh. "There's still the same number of daylight hours, but I would say this time of year makes it even harder," said Barile. "We don't have as many evening daylight hours left and you're still constrained by the clock, but now it just gets darker earlier." She added, "You don't always know until you get started in the morning what you need to do, so having morning daylight doesn't always make a difference."

3. Safety concerns: Changing the clocks means waking up and going to bed at different hours, but it can also create a higher risk of traffic accidents for commuters who normally drive home during daylight hours. A <u>study</u> published by the New England Journal of Medicine suggests that drivers unaccustomed to the time differences due to DST are more likely to get into accidents due to disrupted circadian rhythms and insufficient sleep. "As a society we are chronically sleep-deprived and that small additional losses of sleep may have consequences for public and individual safety," said Dr. Stanley Coren in his report.

4. Health hazards: Changing an individual's schedule by a single hour might not just interrupt their day, but could also be hazardous to their health. Recent studies have linked the beginning and end of DST to a variety of health problems, including an <u>increased risk of heart attacks</u> and a rise in <u>suicide rates</u>. According to Dr. Sean Duffy, an associate professor of Psychology at Rutgers-Camden, DST is not only a risk to physical

health, but it could negatively affect a person's mood. "Falling back" in the winter marks the beginning of early nights, sometimes leading to symptoms of depression. "The change in DST in fall is also a marker of the end of the summer season and the beginning of winter," said Duffy. "This can be depressing for those longing for the extravagances of summer."

5. Interrupted sleeping schedules: Setting clocks back an hour means gaining an extra hour of sleep time. For others who might be more sensitive to time changes, however, going to bed an hour later could cause anything but sweet dreams.

According to Dr. Sean Duffy, an associate professor of Psychology at Rutgers-Camden, time changes could upset a person's natural sleeping schedule. In some cases, the process of adjusting to "springing forward" and "falling back" can affect learning and memory processes by changing the way that the brain functions. "Sleep is a critical process for the whole body, helping it repair damage, but particularly for the brain, which consolidates memory and helps us learn," said Duffy. "Most people can handle the one hour switch of daylight saving time but if you are prone to sleep disorders or insomnia, the change in timing can take some adjustment."

Step 5: Negotiate a Solution, Standardized Tests: Rigor or Ruin?

In this session, students are asked to recall the elements in an evidence-based argument and the strategies of Target the Author's Perspective, Examine the Evidence, and Reading like a Writer. The goal of this session is to model how to use the *Read like a Writer* strategy to help plan and write the bridge sentence in the introduction paragraph. A counterclaim is defined as acknowledging the opposing position. The conclusion restates the position and summarizes the claim. The prompt provides a rationale for the students to analyze two mentor texts and develop evidence-based writing practices so they can engage in a critical dialogue, ponder evidence, broaden perspectives, and make an informed decision about standardized tests. Are standardized tests raising rigor or ruining education?

Essential Questions	
	What are the elements of an evidence-based argument?
	Why does an author use an evidence-based argument?
	How does an author use a counterclaim to strengthen an evidence-based argument?

Analyze traditionally-printed text	*Standardized Tests: Rigor or Ruin?*
Read like a reader	focusing on the comprehension of the author's message.
Read like a Writer	identifying the topic, stance, and perspective in an evidence-based argument. identifying the elements in an evidence-based argument. identifying the counter-claim in an evidence-based argument.
Crafting elements of an evidence-based argument	What type of evidence is being used? How does this evidence support the claim? How does the author present the claim? How does the counter-claim work to create a stronger argument?

Gradual Release for Writing	
I DO	Model how to take evidence and write a counterclaim using the sentence frame: *While it might be true that.... many......*
WE DO	Provide several counterclaims and discuss how it supports the rigorous or ruin claim. Select another pieces of evidence and write a counterclaim using the sentence frame. Write an evidence-based argument supporting the claim that standardized tests are rigorous.
YOU DO	Independently write a counterclaim with the sentence frame.

Mastery	
Student will be able to	summarize the elements of an evidence-based argument. summarize the topic, stance, and purpose in an evidence-based argument. write a counterclaim in an evidence-based argument.

Verbal Protocol Traditionally-Printed Mentor Text

Step 5: Negotiate a Solution, Standardized Tests: Rigor or Ruin?

Check	Action	Before Writing
Activate Schema	Say	Let's review what we did yesterday. We talked about the reason paragraphs in an evidence-based argument. Remember the goal of an evidence-based argument is to convince me, or the reader, that you made the best choice. The best way to do this is to use reason paragraphs that include three parts. Can you tell me about the three parts of an reason paragraph? 1. Evidence: • <u>Reasons of value</u>: *For example, Another reason, Additionally...* • <u>Positive/Negative Information</u>: A quote, a fact, or an example - *According to/believes, Furthermore/states, Finally/suggests that* • <u>Tie-In Sentence</u>: Explain how you convinced your reader • 2. Can you tell me why **Reading like a Writer** helps you convey a more persuasive argument?
Background Knowledge	Say Lay out strategy sheet	You are really becoming an expert at thinking through the problem solving strategy of an evidence-based argument. You can think about two choices, decide which choice is best for you, and then support your choice by giving claims, and evidence for why you made the better choice. **Today I want to talk to you about a counterclaim in an evidence-based argument.** Remember the goal of an evidence-based argument is to convince me, or the reader, that you made the best choice. The best way to do this is to use a counterclaim by identifying the opposite perspective and then using evidence to offer a different solution. A counterclaim includes: 1. Counterclaim: • Identify the other side, offer a different solution • *While it might be true that/many, Even though/most*

		It is important to know how to use a counterclaim in an evidence-based argument, not only so you know what ideas you need to write down, but also to make sure you tell the reader that you have already thought about their perspective.
	Ask	*What are the parts of counterclaim in an evidence-based argument?*
Clarify Strategy	Say	The goal of the **counterclaim** strategy is to make sure you identifying the opposite perspective and then using evidence to offer a different solution.
	Lay out Ruin Say	Let's read this evidence-based argument to identify the five elements. I will read it to you and then we will work together to see if we can **identify the counterclaim**.
	Read like a reader Say	Standardized tests: Ruin One way to identify the counterclaim is to look at the first paragraph. The introduction has a counterclaim that acknowledges both sides of the issue. Watch how I highlight the counterclaim. The counterclaim is also used in the third or fourth paragraph. The conclusion paragraph can sometimes have a counterclaim as well.
	Ask	*What do you notice about the location of the counterclaim?* *Tell me how the counterclaim is used to make the argument stronger?*
	Say	This time I want you to examine the counterclaim in the evidence-based argument for the opposite side. I will read it to you and I want you to think about what words and phrases you could highlight to show the counterclaim of this argument.
	Read like a writer	Standardized tests: Rigorous
	Ask	*The counterclaim in the introduction the argument is ….(in the bridge sentence)* *What words or phrases did the author use to help you identify the bridge sentence?*
	Ask	

	Ask	*The counterclaim in the third paragraph is….* *What words or phrases did the author use to help you identify the counterclaim?* *The counterclaim in the conclusion is...* *What words or phrases did the author use to help you identify the counterclaim?*
	Ask	*Can you paraphrase this evidence-based argument by summarizing the author's perspective, "The author's perspective on _____ is that they are _____ and he wants _____."* *Do you have any questions about creating a counterclaim?*
		During Writing
Demonstrate Strategy	Say	Now it's time for us to practice using this strategy by writing our own counterclaims in our evidence-based argument about this topic.
		After Writing

Evaluate Learning	Say	Tell me what you learned today.
		Can you tell me the five elements of an evidence-based argument? What does each element contain?
		1. Introduction:
		  • Topic Sentence, *hook, definition, ask a question, fact*
		  • Bridge Sentence, *Some people think, Others think*
		  • Claim Sentence
		2. Claim:
		  • *I believe... because….*
		3. Evidence:
		  • <u>Reasons of value</u>: *For example, Another reason, Additionally...*
		  • <u>Positive/Negative Information</u>: A quote, a fact, or an example - *According to/believes, Furthermore/states, Finally/suggests that*
		  • <u>Tie-In Sentence:</u> Explain how you convinced your reader
		4. Counterclaim:

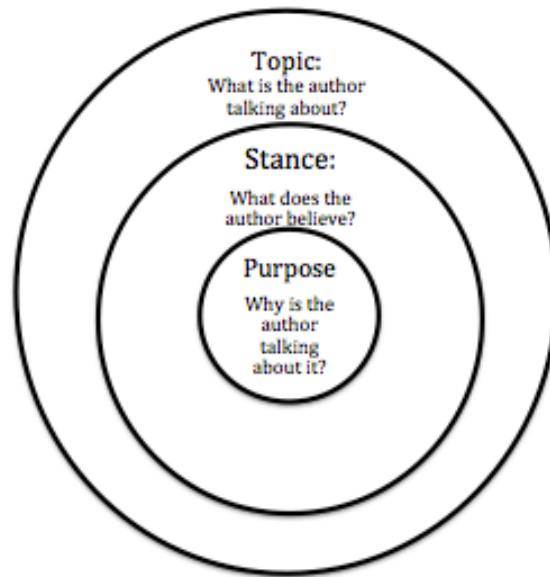|		- Identify the other side, offer a different solution *While it might be true that/many, Even though/most* 5. Conclusion: *Author's perspective sentence* *A call to action, What do you want people to do* Can you tell me why it is important to write a counterclaim? How did the mentor texts help you learn about writing an evidence-based argument? Thank you for spending some time with me. Here is a paper for your parents so they know what we worked on today.

Parent Letter: During intervention time today, your child worked with me. We reviewed the parts of an introduction and conclusion paragraph and how to *Read like a Writer*. We talked about the importance of **creating a counterclaim** when writing an evidence-based argument. Thank you for letting me work with your child. If you have any questions, please feel free to email me at, jbwise@udel.edu

Read like a Writer

1. Skim through the text to notice the author's style.
2. Do a close reading of the element you are writing.
3. Ask yourself what you could use in your writing:
   - Look at the way the introduction/conclusion.
   - Look at the topic sentence in each paragraph.
   - Look at the transition words in the beginning of sentences.

Author's Perspective

Remember your perspective guides your argument choices.

Topic:
What is the author talking about?

Stance:
What does the author believe?

Purpose
Why is the author talking about it?

Topic sentence, Some people think...Other people think...I believe that... because .. For example Another reason... Additionally, According to/believes, Furthermore/states, Finally/suggests that Therefore, I conclude that

Examine the Evidence

1. Look at the evidence from both sides.
2. Choose a side you would rather defend.
3. Select three pieces of evidence from that side.
4. Write the reason why you feel this evidence supports your perspective.
5. Write an *I believe…because* sentence.

Elements of an Evidence-based Argument

1. Introduction:
   - Topic Sentence, *hook, definition, ask a question, fact*
   - Bridge Sentence, *Some people think, Others think*
   - Claim Sentence
2. Claim:
   - *I believe… because….*
3. Evidence:
   - <u>Reasons of value</u>: *For example, Another reason, Additionally…*
   - <u>Positive/Negative Information</u>: A quote, a fact, or an example - *According to/believes, Furthermore/states, Finally/suggests that*
   - <u>Tie-In Sentence:</u> Explain how you convinced your reader
4. Counterclaim:
   - Identify the other side, offer a different solution
   - *While it might be true that/many, Even though/most*
5. Conclusion:
   - *Author's perspective sentence*
   - *A call to action, What do you want people to do*

Read Like a Writer

Introduction		Introduction	
Claim		Claim	
Evidence		Evidence	
Conclusion		Conclusion	

Standardized Tests: Rigor or Ruin?

Yearly standardized tests are a springtime tradition for many students across the United States. Many say that standardized tests are essential for measuring educational progress. Critics of standardized tests say that standardized tests are changing education for the worse. What do you think? Are standardized tests raising rigor, or ruining education?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Rigor

1. Tests can help students to see what they have learned and what they still need to work on
2. When tests are well-written, they can give teachers useful information about what to teach students
3. Tests can motivate students and teachers
4. Standardized tests can be given by computer, and are easy to grade
5. Parents can appreciate having information about their children's strengths and weaknesses
6. With standardized tests, experts can compare how students do in different states and across the country
7. A process called the "testing effect" shows that when students have to remember a piece of information for a test, it is as if they have relearned the information, and can remember it for longer

Ruin

1. Pressure to increase test scores in math and reading may cause schools to take away from arts classes, recess, and physical education
2. The process of standardized testing can be very stressful for students and teachers
3. Without enough questions, many tests can't accurately measure a student's performance in a subject area
4. The companies that create standardized tests are all for-profit businesses, companies that are trying to make as much money as they can
5. Non-academic factors can impact scores--for example, a student who is tired or hungry may not perform as well
6. Many standardized tests do not include open-ended questions, and only measure memorization of facts
7. In many areas, students from lower income communities do poorly on standardized tests, while students from higher income communities do better.

Standardized Tests are Ruining Education

Standardized tests are exams created by testing companies. Some people believe these tests are used to evaluate what students in different states and school districts have learned. Other people believe these exams are not as innocent as they seem. Before, these tests, such as the Pennsylvania System of School Assessment (PSSA), were not as important as they are now. Now, these tests have the power to destroy entire school buildings. We must get rid of standardized tests.

First of all, learning time is being replaced with test preparation. For example, 44 percent of schools in the United States are spending more time on reading and math. Although students do spend more time on math and reading, less time is spent on other subjects, such as science, social studies, and the arts. Furthermore, playtime for kindergarten students has decreased and has been replaced with lessons to prepare for high-stakes testing. These are children no more than the age of 6 preparing for an assessment they will start taking three years later in the third grade! Our children deserve to learn, not to prepare for a standardized test.

We also need standardized tests to be outlawed because they give students anxiety. While it might be true that standardized tests show what students have learned in school, many students feel anxiety while taking the test. In fact, test anxiety is so common that, according to the Sacramento Bee, "The Stanford-9 exam comes with instructions on what to do with a test booklet in case a student vomits on it." Our children should not face this kind of apprehension due to a test.

Lastly, standardized tests need to be stopped because they encourage teachers to cheat. Even though test scores are used to identify students that need more help, some teachers can be punished or rewarded depending on the test scores of the students they teach. This persuades teachers to cheat the system. For instance, in January 2009, a memo revealed that a total of 191 teachers in Washington, D.C., had cheated the system of education. According to ABC News, teachers at a school in Atlanta, Georgia held "parties"

over the weekends to correct test answers. Use of standardized test scores should not persuade our educators to cheat the system of education.

In conclusion, standardized tests are ruining education. Students are currently spending less time learning and more time preparing for a test. In addition, standardized tests give test-takers anxiety. Finally, teachers are tempted to cheat the system. To all readers, we need to put a stop to standardized tests. A petition could be the answer. With enough signatures and enough people to support this cause, standardized tests can be removed from schools.

Standardized Tests Make Education Rigorous

Standardized tests are assessments that are made by testing companies to tell what students in different school districts know. On one hand, standardized testing allows both the students and the schools to evaluate the progress of students and teachers. On the other hand, some people believe that standardized tests do not fairly represent the special education students or the "bad test-takers." I believe standardized tests should be kept in schools.

One reason why standardized tests should be kept in schools is because they are a good measure of a student's achievement. For example, if we did not have standardized tests, policy makers would have to rely on tests that have been made and scored by teachers and individual schools. Even though tests made by teachers may ask questions that are specific to what the teachers taught, a machine grades most multiple-choice questions on standardized tests so teachers cannot change the answers. This evidence shows that standardized tests give more reliable results.

Another reason why standardized tests should be kept in schools is because the increased testing is a better preparation for students who want to go to college. For instance, in January 1998, "*Public Agenda* found that 66% of college professors said that 'elementary and high schools expect students to learn too little.'" Although some people fear that giving standardized tests will force teachers to teach children how to pass the test, most students would be learning even more than the normal class material to help prepare them for the tests. This shows how standardized tests are important because they help students learn what they need to in order to get into college.

Lastly, standardized tests should be kept in schools because students do not get too stressed out over standardized tests. While it might be true that some students get nervous before taking any test, it has been shown that standardized testing actually benefits the students rather than harming them. To illustrate, "although testing may be stressful for some students, testing is a normal and expected way of assessing what students have learned," the U.S. Department of Education said. In addition, the University of Arkansas, in a November 2001 study, found that "the vast majority of students do not exhibit stress and

have positive attitudes towards standardized testing programs." This shows that standardized tests are not too stressful for students.

To conclude, standardized tests make education more rigorous and need to be kept in schools. Again, standardized tests are a good measure of a student's achievement, prepare students for college, and they are not as stressful for students as some people claim. Email the United States Department of Education and tell them that standardized tests should be kept in schools.

Reading Like A Writer: Counterclaim
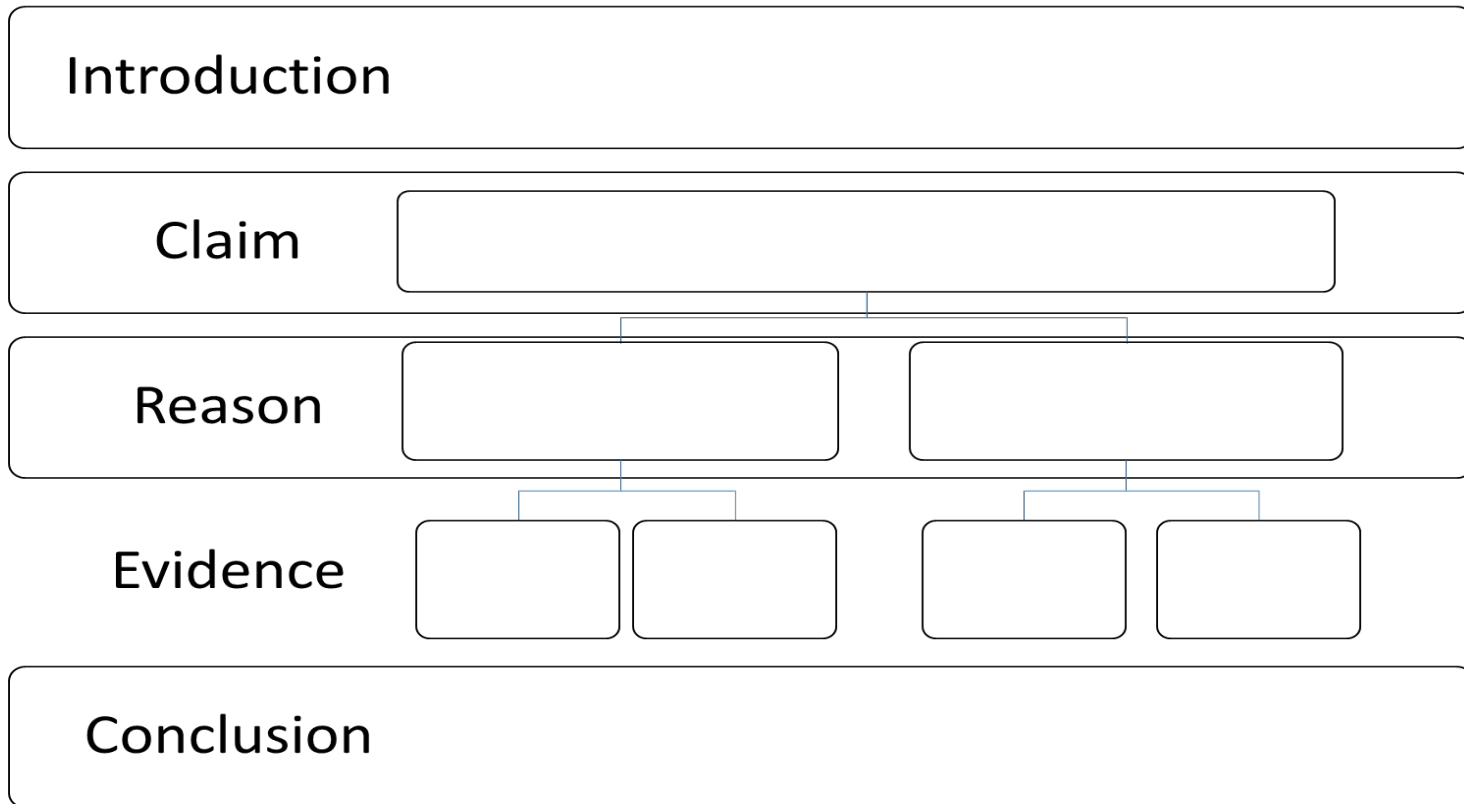
Introduction		
Claim		
Reason		
Evidence		
Conclusion		

Step 6: Practice Writing an Evidence-based Argument without Scaffolds, Cats: Indoor or Outdoor?
In this session, students are asked to write an evidence-based argument independently. The goal of this session is to allow students to apply the strategies they learned to help them: 1) identify the two different perspective on a controversial issue; 2) examine the evidence; 3) use a mentor text to support their writing decisions; and 4) include all four elements in an evidence-based argument. The prompt provides a rationale for the students to analyze two mentor texts and develop evidence-based writing practices so they can engage in a critical dialogue, ponder evidence, broaden perspectives, and make an informed decision about cads. Should cats live indoors or outdoor?

Essential Questions	
	What is my perspective on where cats should live?

Analyze traditionally-printed text	*Cats: Indoor or Outdoor?*
Mastery	
Student will be able to	summarize the perspectives in the mentor texts.
	identify the elements in an evidence-based argument.
	describe their perspective for an evidence-based argument.
	brainstorm elements for an evidence-based argument.
	write an evidence-based argument independently.

Verbal Protocol for Traditionally-Printed Mentor Text

Step 6: Practice Writing an Evidence-based Argument without Scaffolds, Cats: Indoor or Outdoor?

Check	Action	Before Writing
Activate Schema	Say	Today I want you to write an evidence-based argumentative essay about where cats should live. You will get a chance to read two traditionally-printed evidence-based arguments. Each mentor text will give you information about the issue. Remember the process and the strategies we discussed over these last few days. First you will analyze two mentor texts written by authors with different viewpoints. Next, you will examine the evidence and take a stance, or position, on the issue. Finally, you will write an evidence-based argument defending your perspective.

Parent Letter: During intervention time today, your child worked with me. Your child wrote an evidence-based argument about their perspective on cats. I also conducted a semi-structured interview to learn how mentor texts help fifth-graders understand evidence-based arguments. Thank you for letting me work with your child. If you have any questions, please feel free to email me at, jbwise@udel.edu

Cats: Indoor or Outdoor?

Cats have lived with humans for thousands of years. People have become used to sharing their homes with cats and opening the doors to the outside when cats want to explore the yard and garden. Some claim that indoor cats suffer from behavioral problems and weight gain. Others argue cats that roam outside can be happier, more fit as they perform the necessary task of controlling rats and mice.

What do you think? Should cat owners keep their pets indoor or allow them to go outdoor and explore?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Indoor
- 74 million years cats have lived indoors with humans
- When cats go outside they can get diseases
- In a study, cats kill 500 million songbirds each year
- A study by the University of Nebraska shows cats are responsible for the extinction of 33 bird species
- Cats can kill 6.9 billion small mammals each year
- There are many dangers outside like breathing infections and parasites like fleas, tick, and worms
- An outdoor cat darting across the street is a perfect target for a moving vehicle and cats that are hit by cars rarely survive
- According to the Journal of Wildlife Management, cats make up 42% of a coyotes' diet
- A study of 10 indoor cats found cats walk around more than farm cats
- If your cat gets into a territorial fight with another cat and is bitten, she could develop an infection that could send her to the veterinary emergency clinic

Outdoor
- Cats are natural predators
- Cats survival instants to kill animals control the rat and mice population
- Killing mice and rats keep diseases away from houses and playgrounds without using dangerous chemicals
- Indoor cats misbehave because they are bored
- Indoor cats become overweight from a lack of exercise
- Keeping a cat indoors at all times means they can become very dependent on its owners for stimulation, which can result in the cat being stressed during times of the owner's absence
- The outdoors allow for a much better environment for your cat to get adequate exercise.
- indoor cats are not allowed to express their natural behaviors and suffer behavior problem

Let Cats Outdoors

More than 74 million domestic cats live in the United States. Many of these cats spend long hours at windows, staring at an outdoor scene they can never experience. In recent years, more and more vets and pet care experts have told cat owners to keep their cats indoors. They claim that cats allowed outdoors can get diseases and harm wildlife. However, the benefits of letting cats caper in the wild can outweigh the risks. Cats that roam outside can be happier, more fit as they perform the necessary task of controlling rats and mice.

Domestic cats live a pretty easy life. Food is given to them, they can sleep on soft beds, and they get all of the care and attention they need. However, cats still have strong survival instincts. They have a drive to hunt for prey and explore their surroundings. When cats do not have the opportunity to roam free, they may misbehave. According to information from International Cat Care, cats that do not go outside may overreact to changes in their house. They may become overly attached to their owners and fear new people. Indoor cats may also become overweight and suffer from a lack of exercise. Allowing cats to go outdoors gives them the opportunity to do what cats do--track down prey, experience changing smells, and interact with the world.

Outdoor cats can also be beneficial to property owners. On many farms, barn cats help to keep rodent numbers in check. At Longwood Gardens, 14 outdoor cats are a part of the integrated pest management plan. These cats help to keep mice and rats away from the gardens and allow the gardens to decrease pesticide use. Cats are so effective that many shelters now offer "working cats" for adoption. These cats are offered to spend their entire lives outdoors working to keep rodents away from barns and businesses. Outdoor cats can help to keep disease-carrying rats and mice away from houses, playgrounds, and yards without the use of dangerous chemicals. This is an important service!

Cats are natural predators. By allowing them to go outdoors, people can give cats the opportunity to use their inborn skills. People can benefit from the outdoor services of cats, too--cats can help to control dangerous and annoying rodents. Giving cats the chance to go outdoors is worth it!

Keep Cats Indoors

Cats have lived with humans for thousands of years. People have become used to sharing their homes with cats and opening the doors to the outside when cats want to explore the yard and garden. After all, cats need to get outside, right? Some claim that indoor cats suffer from behavioral problems and weight gain. However, careful owners can easily overcome these issues by playing with their cats and ensuring indoor exercise. New research has shown that cats do not need to get outdoors. Instead, keeping cats indoors is better for both wildlife and for cats themselves.

Domestic cats were first brought to North America with early settlers. These cats were thought to control pests like mice and rats. Unfortunately, cats can't distinguish between pest animals like house mice and important native species. Data from a study conducted by the University of Georgia suggests that cats kill 500 million songbirds each year. In fact, research from the University of Nebraska shows that cats have been responsible for the extinction of 33 bird species. Another published study estimates that cats kill between 6.9 billion and 20 billion small mammals each year. Many owners have no idea that their cats are harming so many small creatures. In many situations, cats do not even eat the animals they kill. Allowing cats to roam outdoors can cause great damage to the native ecosystem.

Not only do outdoor cats harm wildlife, but they also are at risk themselves. When cats go outdoors, they face many dangers. Outdoor cats are at risk for many diseases, including feline leukemia, feline distemper, and upper respiratory infections. In addition, there are many parasites that can affect outdoor cats, like fleas, ticks, and worms. Fast-moving cars and trucks are also dangerous for cats. No one knows for sure, but some estimate that cars kill millions of cats each year. In some places, other predators can also kill cats that roam outdoors. According to the Journal of Wildlife Management, the coyotes around Tucson, Arizona eat many cats, with the felines making up about 42% of the coyotes' diet. No one wants to imagine their pet as a meal for a coyote. Keeping a cat indoors keeps that cat safe from harm.
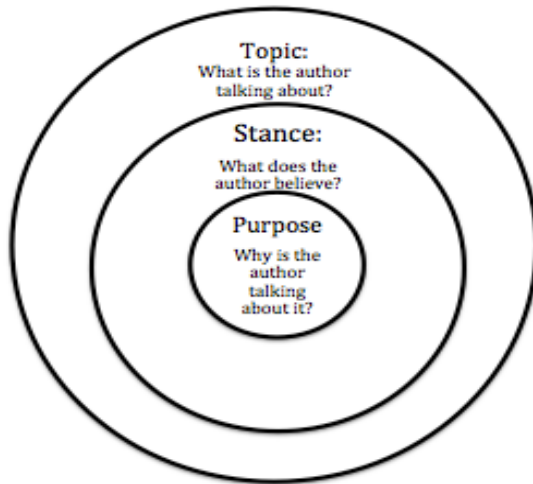
Our house cats may seem like fierce, independent predators that want to roam freely outdoors. However, allowing cats to go outdoors causes problems for both wildlife and cats. Cats kill songbirds and other native species, and face many dangers outside. Keeping cats indoors helps to keep many animals safe!

Read like a Writer	**Examine the Evidence**

Read like a Writer
1. Skim through the text to notice the author's style.
2. Do a close reading of the element you are writing.
3. Ask yourself what you could use in your writing:
- Look at the way the introduction/conclusion.
- Look at the topic sentence in each paragraph.
- Look at the transition words in the beginning of sentences.
-

Author's Perspective
Remember your perspective guides your argument choices.

Topic:
What is the author talking about?

Stance:
What does the author believe?

Purpose
Why is the author talking about it?

Examine the Evidence
1. Look at the evidence from both sides.
2. Choose a side you would rather defend.
3. Select two pieces of evidence from that side.
4. Write the reason why you feel this evidence supports your perspective.
5. Write an *I believe…because* sentence.

Elements of an Evidence-based Argument
1. Introduction:
   - Topic Sentence, *hook, definition, ask a question, fact*
   - Bridge Sentence, *Some people think, Others think*
   - Claim Sentence
2. Claim:
   - *I believe… because….*
3. Evidence:
   - Reasons of value: *My first reason, Another reason, Additionally…*
   - Positive/Negative Information: A quote, a fact, or an example – *For example, According to/believes, Furthermore/states, Finally/suggests that*
   - Tie-In Sentence: Explain how you convinced your reader
4. Counterclaim:
   - Identify the other side, offer a different solution
   - *While it might be true that/many, Even though/most*
5. Conclusion:
   - *Author's perspective sentence*
   - *A call to action, What do you want people to do*

Topic sentence, Some people think…Other people think…I believe that… because .. For example Another reason… Additionally, According to/believes, Furthermore/states, Finally/suggests tha Therefore, I conclude that
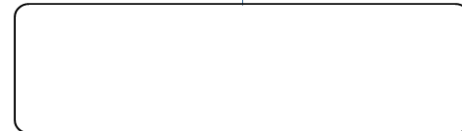
Introduction

Claim

Reason

Evidence

Conclusion

Appendix D

INSTRUCTIONAL PROTOCOL FOR TRADITIONALLY-PRINTED AND DIGITAL MENTOR TEXT CONDITION

Step 1: Introduce Mode, Modal Affordance, and Coherence

In this session, students are introduced to six different modes an author can use to convey meaning. A mode is defined as a sign or symbol used to make meaning and includes: oral, written, visual, gestural, tactile, and spatial. For example, making meaning from a stop sign is the result of a combination of three different modes and their affordances. The word *Stop* (written mode) conveys the action the driver should take. The affordance of the red color (visual mode) conveys a meaning of danger. The placement of the sign at the intersection of two streets and at a driver's eye level (spatial mode) conveys the time and place for the action. The goal of this session is to identify how author makes meaning through the use and combination of different modes. Analyzing short video clips will provide examples to help the student identify the different modes, their affordances, and how they work together to create meaning.

Essential Questions	
	What is a mode? How many modes can an author use to convey meaning? What are modal affordances? What is coherence?
Analyze digital mentor text, traditionally-printed text	It's a Book by Lane Smith Book trailer: https://www.youtube.com/watch?v=x4BK_2VULCU

Read like a reader	focusing on the comprehension of the author's message.
Read like a writer	identifying the modes, modal affordances, and coherence in a traditionally-printed and digital mentor text
Gradual Release for Writing	
I DO	Model how to deconstruct a traditionally-printed and digital mentor text for modes, modal affordances, and coherence.
WE DO	Provide several other traditionally-printed and digital mentor texts and identify modes, modal affordances, and coherence: Goodnight iPad https://www.youtube.com/watch?v=-ouOwpYQqic
YOU DO	Independently explain the modes, modal affordances, and coherence in a traditionally-printed and digital mentor text
Mastery	
Student will be able to	explain modes, modal affordances, and coherence in a traditionally-printed and digital mentor text. identify the modes, modal affordances, and coherence in a traditionally-printed and digital mentor text

Check	Action	Before Writing
Activate Schema	Layout books Say	I am going to give you two different books (novel and a picture book, It's a Book by Lane Smith). How do these books differ? (i.e. one had all words and the other has pictures and words). Why do you think an author would decide to add pictures to a story? (i.e. pictures support the reader's comprehension, more effective way to make meaning might be through a picture).
Background Knowledge	Say	The words and pictures are called modes. A mode is a sign or symbol an author uses to convey a message. In the novel, the author uses only one mode, which is called the written mode. A written mode can be handwritten or typed. In the picture book, the author uses two different modes, written and visual. A visual mode can be

		images that are draws or photographs. Color can also but used to make meaning with the visual mode.
	Ask	*Do you notice with the visual mode works with the written mode to support the reader's comprehension?*
Clarify Strategy	Layout Mode, Modal Affordance, & Coherence Chart	Cue digital book trailer: https://www.youtube.com/watch?v=x4BK_2VULCU
	Say	When an author uses more than one mode to convey meaning we say the author uses multiple modes or **multimodal meaning making**. The picture book is an example of a multimodal book because the author used multiple modes to covey a message. Now we are going to look at this same book but in a different format on the computer. This type of book is a digital book trailer. Let's watch it together and then I want to discuss how the digital book has different modes than the traditionally-printed book.
	Ask	*What different modes did you notice? (i.e. there is movement, voices, sounds).*
	Say	As you noticed in the digital book trailer, the author used multiple modes. He used visuals (still and moving), oral (voice-narration), written (the book title, TOOT), and audio (music, special effects like bells and beeps). An author should only used modes that will support the reader's comprehension just like the picture book author used words and pictures.
	Say	This time we are going to watch it again for the **modal affordances**. An affordance is the way a mode can change to make the meaning clearer to the viewer. For example, the author uses the oral mode of the voice-over narration to show the meaning that the ape is getting annoyed at the donkey. You can hear his voice getting slower and he humph. You can also hear the curiosity of the donkey.
	Ask	*What modal affordances did you notice for each of the modes?* The modal

	Say	affordance is important because is can help the author create a specific effect on the viewer. Did you start feeling annoyed with the donkey? How did the visual mode change and what was the effect? How about the written mode, and audio mode?
	Say	If an author does a really good job, the modes and modal affordances work together to create a **coherent message**. Sometimes though, the author selects modes that that don't work together. In fact, they are actually distracting instead of working together. This is called coherence, or how well the modes and affordances work together to create meaning. For example, some modes are very similar.
	Ask	Two modes that are similar are the oral mode and the audio mode. They are the same because you use your sense of hearing to make meaning. At the same time, they are different. The oral mode is only used when words are spoken instead of written down. The audio mode includes all other sounds and noises expect spoken words. Let's just listen to the digital book trailer to see how these two modes work together to create meaning.
	Say	*What did you notice?* We would say the oral and audio modes are coherent because they work together to create a strong message about the difference between a traditionally-printed and digital book.
	Ask	We will watch it again, but this time we will turn the oral and audio modes off so we can make meaning only from the visual, written, gestural, and spatial modes.
		Do you see how the oral and audio modes are important to help make meaning? It is important to identify when modes add meaning or distract from the meaning. When a mode distracts from meaning we would say that mode is not coherent because it makes it difficult to make meaning.

		During Writing
Demonstrate Strategy	Say	Now it's time for us to practice using this strategy by identifying the different modes, modal affordances, and coherence of a traditionally-printed and digital mentor text. I will go first, then we will try it together, and then you will try it by yourself.
I DO	Say	When I look at the traditionally-printed book, *Goodnight iPad*, I notice the author used the visual mode (still images and color) and written mode (words). The two modes that the author didn't use were the oral and audio modes. The author uses the modal affordances for visual (light/dark, big/small, front/background, hand drawn images), written (font size/shape, capitals/lower case, space between letters/words). The modes work well together to convey a coherent message of chaos and then peace. I am not sure about the coherence of the spatial with the size. I don't understand why sometimes the whole page is used and then just a circle is used unless the author meant to show the child is unaware of anything else going on around them.
WE DO		Cue up digital book trailer: https://www.youtube.com/watch?v=-ouOwpYQqic
	Say	This time we will work together to identify the different modes the author used to make meaning in the digital book for Goodnight iPad. As you noticed in the digital book trailer, the author used multiple modes. Let's use the **mode, modal affordance, coherence chart** to help us talk about what we noticed: visuals (still/moving, colors, white screen), oral (voice-narration), written (book title, speech, sounds), and audio (music, special effects like bells and beeps).
YOU DO	Say	Finally, I would like you to explain the modal affordances and the coherence of the digital book, Goodnight iPad. What modes worked well together? Are there any modes that are distracting or do not help you create meaning?
		After Writing

Evaluate Learning		Tell me what you learned today.
		Can you tell me what a mode is and list the four different modes?
		• A mode is a sign or symbol used to create meaning.
		• There are four different modes: visual, oral, written, and audio.
		Can you tell me what a modal affordance is and why it's important?
		• The modal affordance is how a mode can be changed to enhance the meaning or effect.
		• The modal affordance is important for the viewer because it can add meaning.
		How did the mentor texts help you learn about modes, modal affordances, and coherence?
		Thank you for spending some time with me. Here is a paper for your parents so they know what we worked on today.

Parent Letter: During intervention time today, your child worked with me. Your child learned about modes, modal affordance, and coherence. We also practiced identifying the seven different modes an author uses to create meaning: visual, oral, written, and audio. Thank you for letting me work with your child. If you have any questions, please feel free to email me at, jbwise@udel.edu

Modes, Modal Affordance, and Coherence

Modes – signs or symbols used to make meaning	Modal Affordance – adjustments to mode to convey best meaning	Example
Visual • Image: still or moving • Color: black/white, color • View: Down, up, scan • Scene: Landscapes, cityscapes • Perspective: authority, passive	Light/dark Big/small Front/background Animated/ real Lines/shapes Graphs/data	Pictures Video clips Landscapes Looking down
Oral • Speech: Live or recorded • Listening	Pitch: high/low Tempo: fast/slow Tone: sharp/soft Inflection: animated/monotone	Voice-Over Narration Interviews
Written • Handwritten: on page or screen • Typed	Font size/shape (cursive/print) Capitals/lower case Space between letters/words	Captions Posters Labels
Audio • Music: instrumental or vocal • Sound effects: bells, cheers, nature • Silence: pause	Loud/soft Fast/slow Signal transition	Pop or classical Crickets & birds

Multimodal Analysis of Goodnight iPad

What did you notice?	What evidence is the author using to convey their argument?	What reasons explain the evidence?
	Visual	
	Oral	
	Written	
	Audio	

What is the author claiming?

Step 2:Targeting the Author's Perspective, Zoos: Conserving or Cruel
In this session, students are introduced to the purpose of an evidence-based argument and the author's perspective through both a traditionally-printed and a digital mentor text. The author's perspective is defined as the topic, stance, and purpose. The goal of this session is to highlight the fact that authors have a primary goal of resolving differences of opinion toward their perspective on a controversial issue. Analyzing two mentor texts with two different formats provides expert models that help students develop evidence-based writing practices so they can engage in a critical dialogue, ponder evidence, broaden perspectives, and make an informed decision.

Essential Questions	
	Why is argumentation important?
	What is the author's perspective?
	Topic - What is the author talking about?
	Stance – What does the author believe to be true?
	Purpose - Why is the author talking about this topic?

Analyze digital mentor text, traditionally-printed text	Zoos: Cruel to Animals Zoos: Conserving Animals
Read like a reader	focusing on the comprehension of the author's message.
Read like a writer	identifying the topic, stance, and purpose in an evidence-based argument.
Affordance of mode (s)	Which modes create the best meaning for the author's perspective? Are there other modes that might convey a clearer author's perspective?
Coherence of meaning	How do the modes work together to convey the author's perspective? How do the modes work against conveying the author's perspective?

Gradual Release for Writing	
I DO	Model how to examine evidence for both sides of an issue and write a claim from different perspectives using the sentence frame: *I believe that… because* ..

WE DO	Provide several claim sentences and discuss how the author's perspective supports cruel or conserving. Select another pieces of evidence and write a claim using the sentence frame.
YOU DO	Independently explain the topic, stance, and purpose. Write a claim that matches this perspective with the sentence frame.

Mastery	
Student will be able to	explain why it's important to be able to convey their perspective clearly. identify the author's perspective in the mentor text. identify the topic, stance, and purpose in the mentor text. write a claim that matches the author's perspective.

Verbal Protocol Digital Mentor Text

Step 2:Targeting the Author's Perspective, Zoos: Conserving or Cruel

Check	Action	Before Writing
Activate Schema	Say	Have you ever played the game *Would You Rather?* I will offer you a choice between two things. You have to pick one and tell me why you would rather have that thing. For example, If I would say, "Would you rather eat a hotdog or a hamburger?" you might say, "I would rather eat a hotdog because I like the way it tastes." Or maybe you would say, "I would rather eat a hamburger because it is healthier." If you convince me why your choice is the best, I will let you have it. Do you want to try it?
	Lay out a pencil & pen Say	Would you rather write with a pencil or a pen? (Give examples if student is struggling to come up with a reason) • Pencil – can erase, shade in pictures, sharp, write upside down, know when its out of lead • Pen – doesn't break, easier to see, don't have to press hard
	Give student the item Lay out sticky notes Say	Would you rather use small or large sticky notes? (Give examples if student is struggling to come up with a reason) • Small – takes up less room • Large – more space to write
	Give student the item Lay out erasers Say	Would you rather have an eraser for the top of your pencil or a medium size eraser? (Give examples if student is struggling to come up with a reason) • eraser top – won't lose it • medium eraser – lasts longer, works better
	Give student the item	

Background Knowledge	Say	You are really good at making decisions and explaining why you thought that item was the best choice for you. Over the next few days we will be working together to improve your skills at making decisions and convincing me why your decision is the best one for you. There is another word people use to describe the *Would You Rather?* game. It's called **evidence-based argumentation**. Have you ever hear of an evidence-based argument before? **An evidence-based argument is a problem solving strategy you can use when you have to think about two choices, decide which choice is best for you, and then support your choice by giving reasons why you made the better choice.** The goal with an evidence-based argument is to convince me, or your reader, that you made the best choice. Some real world examples include:
		• Telling your parents why you should be able to stay up later.
	Ask	• Explaining to your friend why your sports team is the best.
	Say	• Telling your sister or brother why they should let you go first.
		Can you think of any other examples?
		Learning how to write an evidence-based argument is important for three reasons:
		4. You learn how to have a conversation.
		5. You learn how to think about positives and negatives before you make a choice.
		6. You make an informed decision.
		Let's review the steps again and I want you to take notes by writing down one word and then drawing a quick picture to help you remember. It is important that you know the steps that will help you write a strong evidence-based argument, not only to convince others that you made the best choice, but also to help you make decisions quickly. Why is it important to be able to write an evidence-based argument?
Clarify Strategy	Say
Lay out the strategy	Today's strategy is called **Target the Author's Perspective**.

	sheet Say Cue video Zoos: Conserve Say Read like a reader Layout the deconstruction pages *Ask* Read like a writer Say	When you are targeting the author's perspective, you are identifying the topic that the author is talking about, what the author believes is true, and the purpose for why the author is arguing. Once you know the author's perspective, you can decide if you want to agree or disagree with their choice. Then you can join the conversation by sharing your decision and explaining why your choice is the best choice for you. The goal is to get the reader to agree that your choice is the best choice. https://www.youtube.com/watch?v=tJ8AoSZuYT4 Let's try it out with this evidence-based argument. You are about to watch a digital argument titled, "Conserving Animals". This was published by the Polar Bears International, and highlights the benefits of zoos working with scientists to help with the conservation of polar bears. The information in the video comes from scientists who research polar bears in the wild. You will have a chance to watch the video two times. The first time you will watch it to get a sense of the video. Then we will discuss the modes, modal affordances, and coherence of the digital mentor text. The second time you will watch it to identify the author's perspective. During the second viewing, you may want to write down information on your graphic organizer so you can remember it when we talk. Let's see if we can **Target the Author's Perspective**. Hand students the Multimodal Analysis sheet for note taking What did you notice? One way to identify the topic is to identify modes that are repeated in the video. I know the topic of this evidence-based argument is **zoos helping polar bears** because the phrase "zoos and aquariums" is mentioned several times through several modes including: oral (voice-over narration), written (words on screen), visual (polar bears). Watch how I highlight the modes that make meaning about zoo(s) helping polar bears. *Do you see how often the topic is mentioned and how the meaning is different depending on the mode?*

	Ask Say	One way to identify the author's stance is by thinking about the two choices of the issue. For example, one choice might be the positive, or helpful, things about the issue. Another choice might be the negative, or harmful, things about the issue. Watch how I highlight modes that give clues about what he believes to be true. *Do you see how the modes are about the positive ways zoos conserve are helping scientist learn more about polar bears' health? Do you see how the modal affordances create a peaceful and positive effect?*
	Ask Say	One way to identify the purpose of the argument is to look at the beginning and ending of the video. I know the purpose of the argument is to get people to support Polar Bear International. Watch how I highlight modes in the beginning and ending that crate meaning about supporting Polar Bear International. *Do you see how the modes support how he wants people to support Polar Bears International so they can continue to fund their research?*
	Ask Point to Multimodal Analysis page	I can paraphrase this evidence-based argument by saying, "The author's perspective on zoos is that they are helping scientist learn more about polar bears' health and he wants people to support Polar Bears International so they can continue to fund their research."
	Lay out Zoos: Cruel Say	*What effect did the modes have on you?* For example, when I was watching the visuals, I felt concerned that there was no snow in some of the moving images and I felt an urgency to save the polar bears. Can you tell me how the visual mode or another mode affected you? **What meaning did you make to be able to identify the author's perspective?** Which modes create the best meaning for the author's perspective? Are there other modes that might convey a clearer author's

		perspective? How do the modes work together to convey the author's perspective? How do the modes work against conveying the author's perspective?
	Read like a reader	Here is another evidence-based argument. We are going to do the same process of identifying the author's perspective but with a written essay entitled, Zoos: Cruel to Animals. We are going to read the essay two times. The first time we will read it like a reader, just to get a sense of the author's message. Then we will read it like a writer and deconstruct the essay by highlighting the topic, stance, and purpose. This time I want you to target the author's perspective. I will read it to you and I want you to think about what words and phrases you could highlight to show the topic, the stance, and the purpose for this argument.
	Ask Point to the TSP G.O. Read like a writer	
		Zoos: Cruel to Animals
		What is the first step?
	Ask Point to the TSP G.O. Read like a writer	The topic of the argument is….(have student answer), How do you know the topic is zoos? (word is in title and repeated) One way to identify the topic is to look for words in the title or heading that are repeated in the passages. I know the topic of this evidence-based argument is **zoos** because it is in the title and it is mentioned several times in the passage. Can you highlight where you see the topic? Do you see how often the topic is mentioned?
		What is the second step?
	Ask Point to the TSP G.O. Read like a writer	The stance of the argument is… How do you know the author's stance is that zoos conserve animals? One way to identify the author's stance is by thinking about the two choices of the issue. For example, one choice might be the positive, or helpful, things about the issue. Another choice might be the negative, or harmful, things about the issue. Can you highlight words and phrases that give clues to the stance?

	Ask	Do you see how the words and phrases are about the negative ways zoos hurt animals?

What is the third step?

The purpose for the argument is…, How do you know the purpose of the argument is that zoos are cruel to animals? (title and repeated), One way to identify the purpose of the argument is to look at the title and the first and last paragraph. I know the purpose of the argument is to get people to close down zoos. Tell me how the words and phrases support how zoos are cruel to animals?

Can you paraphrase this evidence-based argument by finishing this sentence, "The author's perspective on zoos is that they are cruel to animals and he wants people to close them down so animals can live in the wild." *Do you have any questions about Targeting the Author's Perspective?* |
		During Writing
Demonstrate Strategy	Say	Now it's time for us to practice using this strategy by writing our own perspective about zoos. I will go first, then we will try it together, and then you will try it by yourself.
I DO	Say	First, I will examine evidence for both sides of the zoo issue. The topic is always going to be about zoos but my perspective might change depending on what I believe. Let's say I think zoos are cruel. I want to select a piece of evidence and combine it with what I believe using the sentence frame: *I believe that… because…* I believe zoos are cruel because a sad elephant named Happy lives all alone in a small enclosure.
WE DO	Say	This time we will work together to write a perspective using the sentence frame.
YOU DO	Say	Finally I would like you to write your own perspective using the sentence frame.
		After Writing
Evaluate		Tell me what you learned today.

Learning		Can you tell me the three reasons why learning how to argument important?
		1. You learn how to have a conversation.
		2. You learn how to think about positives and negatives before you make a choice.
		3. You make an informed decision.
		Can you tell me the three parts of an author's perspective?
		Topic - What is the author talking about?
		Stance – What does the author believe?
		Purpose - Why is the author talking about this topic?
		How did the mentor texts help you learn about writing an evidence-based argument?
		Thank you for spending some time with me. Here is a paper for your parents so they know what we worked on today.

Parent Letter: During intervention time today, your child worked with me. We played the game, "Would you rather?" and talked about the importance of engaging in a conversation to explain their perspective. Thank you for letting me work with your child. If you have any questions, please feel free to email me at jbwise@udel.edu

Zoos: Cruel or Conserving?

Zoos are popular places for families to visit. It's easy to see why—kids and adults enjoy seeing exciting animals from all over the world. But are zoos healthy places for animals? Some people think keeping wild animals in captivity is no longer acceptable. Other people think the efforts of these zoos help animals in the wild. What do you think? Are zoos cruel or conserving animals?

- Read the evidence for both sides.
- Form your own position.
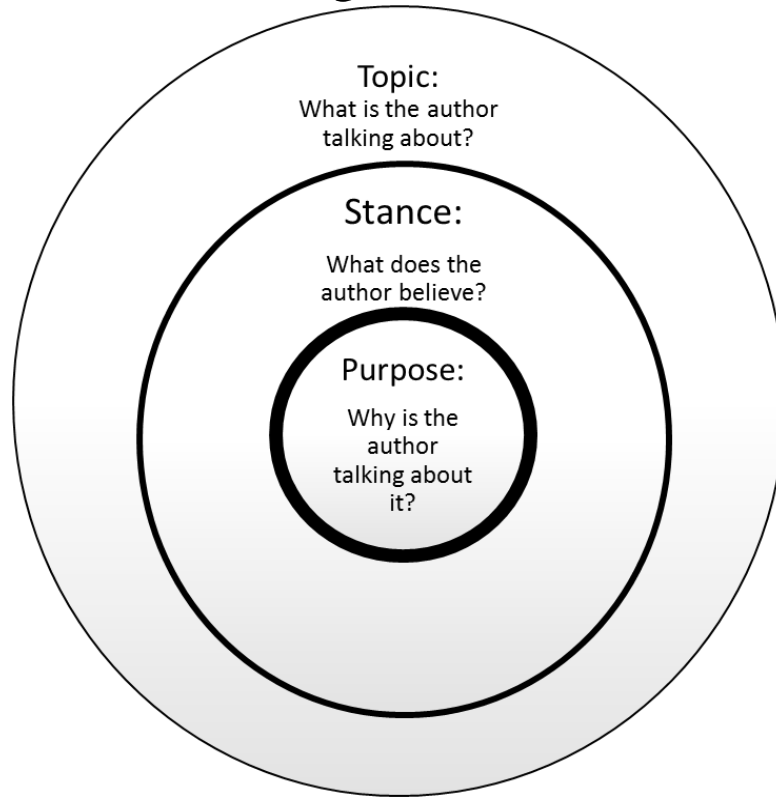- Write an essay to state your position.

Cruel

1. Zoos are focused on entertainment and profits over conservation.
2. Mistreatment and poor conditions that many animals face.
3. Tiger cubs were separated from their mothers at an early age for photo session. People handle tired, hungry, and sick cubs for long hours. Cubs are sold to circuses or roadside zoos with poor animal care.
4. At the Bronx Zoo, a sad elephant named Happy lives all alone in a small enclosure.
5. Animals have no place to hide from view, which makes them nervous when there are people around
6. Animals at zoos often show signs of stress, including pacing, head bobbing, and rocking back and forth.
7. Many animals live shorter lives in zoos than they would in the wild.
8. Most captive breeding in zoos occurs only to increase the number of zoo animals.
9. Not one elephant born in a North American zoo has ever been released in the wild.
10. Too many zoos exploit and harm animals instead of improving their lives.

Conserving

1. People help endangered animals like black-footed ferrets, clouded leopards, and golden lion tamarins.
2. By educating the public and conserving species, zoos fulfill an important role for the future.
3. The Smithsonian National Zoo recently completed an 8,493 square meter elephant enclosure. Elephants have indoor and outdoor access, comfortable flooring, and even a quarter-mile walking path for exercise.
4. People will see displays about the native plants and animals that live in the area.
5. According to the Association of Zoos and Aquariums, more people visit zoos each year than visit all sporting events combined.
6. These visits are an important opportunity to educate people about the issues faced by many animals, including illegal poaching, habitat loss, and climate change.
7. Zoo visitors donate money to help animals in the wild.
8. The critically endangered black-footed ferret has been reintroduced to the wild due to the efforts of the National Zoo.
9. The information that zoos gather about species also helps researchers with wild animals.
10. At the St. Louis Zoo, researchers have been learning about how mother antelopes and their babies bond.

Target the Author's Perspective

Topic:
What is the author
talking about?

Stance:
What does the
author believe?

Purpose:
Why is the
author
talking about
it?

The topic is…

The stance is…

The purpose is…

The author's perspective on_____(topic) is that_____(stance) because_____(purpose).

Multimodal Analysis of The Role of Zoos in Conservation

https://www.youtube.com/watch?v=tJ8AoSZuYT4

By Polar Bear International (2:32 length)

What did you notice?

How did the author convey his perspective?	What evidence is the author using to convey their argument?	What reasons explain the evidence?
Topic: Stance: Purpose:	**Visual**	
Topic: Stance: Purpose:	**Oral**	
Topic: Stance: Purpose:	**Written**	
Topic: Stance: Purpose:	**Audio**	

What is the author claiming?

Multimodal Analysis of The Role of Zoos in Conservation

What modes were included or excluded?	Why do you think the author used those modes? What effect did the modes have on you?	What meaning did you make to be able to identify the author's perspective?
Visual Polar bears Behavior habitat scientists white screens clothes	Concern that there is no snow Cold from the scientist's outfit Peaceful from white screens Urgency to save polar bears Gentle behavior Sad behavior	Topic – polar bear's health Stance – many people working to help Purpose – show people a polar bear in the habitat and the scientists who are helping
Oral Field biologist explaining what they study & where	Peaceful feeling Passion of scientist Curious about the answers to the scientist's questions	Topic - studying polar bears Stance – don't know much Purpose – there is still a lot to learn so they work with zoos to make a difference to conserve polar bears
Written Polar bear international, Website Sentences explaining how they help polar bears	Curious about visiting the website Provided more information	Topic – who they are Stance – people can help polar bears Purpose – create hope to polar bears
Audio Instrumental music, Silence, Quite then loud	Peaceful, relaxed environment	

Topic: Zoos, **Stance:** help to conserve polar bears' health, **Purpose**: zoos provide important information for scientists

Author's Perspective: The author's perspective on zoos is that they conserve animals and he wants people to know that scientist can learn a lot about polar bears health by working with zoos.

Deconstruction of The Role of Zoos in Conservation
https://www.youtube.com/watch?v=tJ8AoSZuYT4
By Polar Bear International (2:32 length)

Visual Mode					

Oral Mode
Polar Bears International www.polarbearsinternational.org Every fall hundreds of polar bears gather on the western shores of the Hudson Bay to wait for the ocean to freeze. Polar Bears International also travels to these shores. They bring a passionate group of scientists, educators, and conservationists to reach out to the world with a message of hope. We are creating the greatest generation of conservationists the world has ever seen. Please join us. What role can accredited zoos and aquariums play in conservation? Hi, my name is Evan Richardson, University of Alberta, we are on the coast of Hudson Bay in Churchill Manitoba. As a field biologist, I work with these bears and in our research we answer a lot of questions about polar bear habitat selection, where they make their den sites, how they move on the sea ice, what sort of animals do they prey on, and how large their home ranges are. We are among one of the most studied polar bear populations in the world. We have done a lot of research on the impact of climate change but some of the things we don't know a lot about are things like polar bear physiology, how their nervous system works, how sensitive their hearing is, how sensitive their sense of smell is, and this is where zoos and aquariums are working with the field biologists to get more information about these key questions about polar bear life history. So when working with zoos , like the San Diego Zoo, we started to look at these questions. In particular, looking at hearing experiments and how sensitive polar bears are to different noises. This is important for denning female polar bears to see if they are being disturbed. In addition, there is work being done on polar bear reproduction. They have actually started doing ultra sounds on polar bears in captivity and learning more about implantation of embryos and important things having to do with polar bear reproduction. We are working with Polar Bears International to establish corporative working relationships between researchers like myself, who work in the field, and also people who work with bears in zoos. Together with the support from Polar Bears International, we are starting to learn more about polar bears. Together we are trying to make a difference in terms of the conservation of this species. Polar Bears International wwwlpolarbearsinternational.org

Written Mode						
Polar Bears International www.polarbearsinternational.org	Every fall hundreds of polar bears gather on the western shores of the Hudson Bay	to wait for the ocean to freeze	Polar Bears International also travels to these shores.	They bring a passionate group of scientists, educators, and conservationists to reach out to the world with a message of hope.	We are creating the greatest generation of conservationists the world has ever seen. Please join us.	What role can accredited zoos and aquariums play in conservation?
Even Richardson University of Alberta	Polar Bears International wwwlpolarbearsinternational.org					

Audio Mode		
Instrumental music	talking	Instrumental music

Zoos: Cruel to Animals

Zoos are popular places for families to visit. Some people believe zoos help animals. Other people think zoos focus on entertainment and making money. I believe zoos are cruel because wild animals should not be kept in cages.

Visitors often focus on the neat animals on display. They do not see the mistreatment and poor conditions that many animals face. An investigation by the Humane Society of the United States showed that two zoos in Virginia and Oklahoma made thousands of dollars from tiger cub photo sessions. These tiger cubs were separated from their mothers at an early age. People handled tired, hungry, and sick cubs for long hours. People paid to have their pictures taken with the tiger cubs. But what happens to the cubs after the photo sessions are over? After 8 weeks old, the tiger cubs are sold to circuses or roadside zoos with poor animal care.

With wild habitats shrinking and animals becoming endangered, people must act to save animals. However, zoos are not the way to do this. Too many zoos harm animals instead of improving their lives. Zoos should be closed and the animals should be returned to the wild.

Step 3: Examine the Evidence, Plastic Micro-beads: Beautiful or Barbaric?

In this session, students are introduced to the elements of an evidence-based argument that include: introduction, claim, reason, evidence, and conclusion. The elements will be explained using a traditionally-printed and a digital mentor text. The goal of this session is to model how to *read like a writer* using a think-aloud to identify and label each element. The introduction includes a hook to grab the reader's attention; a bridge sentence that acknowledges both sides of the issue; and a claim as the thesis statement. Each paragraph starts with one reason and two pieces of evidence. Evidence will be defined as quotes, facts, and examples that support the reason. The conclusion summarizes the argument with a claim and a call to action.

Essential Questions	
	What are the elements of an evidence-based argument? How does an author use these elements to convey their perspective?

Analyze digital mentor text, traditionally-printed text	Plastic Micro-beads: Beautiful or Barbaric?
Read like a reader	focusing on the comprehension of the author's message.
Read like a writer	identifying the topic, stance, perspective in an evidence-based argument. identifying the claim in an evidence-based argument. identifying reasons and examples in an evidence-based argument.
Crafting elements of an evidence-based argument	What type of evidence is being used? What reasons does the author give? How does this evidence support the reasons? How does the author present the claim? How do the reasons support the claim? How does the introduction and conclusion work together to create an effective argument?
Affordance of mode (s)	Which modes create the best meaning for this argument? Are there other modes that might convey a clearer argument?
Coherence of meaning	How do the modess work together to convey the author's perspective? How do the modes work against conveying the author's perspective?

Gradual Release for Writing	
I DO	Model how to examine evidence for both sides of an issue and write reasons using the sentence frame: *I believe that… because .. For example…*
WE DO	Provide several reason sentences and match evidence to support the reasons. Select other pieces of evidence and write a reason-evidence chain using the sentence frame. Write an evidence-based argument supporting the claim that micro-beads are beautiful with the paragraph frame: *I believe that… because .. For example*, *Another reason… This is shown, by…Furthermore…states…Therefore, I conclude that*
YOU DO	Independently explain the elements of an evidence-based argument. Write a reason that matches the evidence with the sentence frame.

Mastery	
Student will be able to	define the elements of an evidence-based argument. identify the author's perspective in an evidence-based argument. identify the elements in an evidence-based argument. write a reason that matches the evidence with the sentence frame.

Verbal Protocol Digital Mentor Text

Step 3: Examine the Evidence, Plastic Micro-beads: Beautiful or Barbaric?

Check	Action	Before Writing

Activate Schema	Say	Let's review what we did yesterday. First we talked about why it is important to learn how to write an evidence-based argument. Can you remember any of the three reasons why it is important?
		 1. You learn how to have a conversation.
		 2. You learn how to think about positives and negatives before you make a choice.
		 3. You make an informed decision.
		 Then we talked about Targeting the Author's Perspective. Do you remember the three parts of an author's perspective? (Hint – TSP)
		       Topic - What is the author talking about?
		       Stance – What the author believes to be true?

	Say	Purpose - Why is the author talking about this topic? We are going to adjust the game *Would You Rather?* by building a tower and adding the phrase, *"I believe…because…"*. I will give you blocks with two choices and four pieces of evidence for each choice. You have to select the evidence that supports why you would rather make that choice. For example, if I would say, "Would you rather vacation at the beach or in the mountains?" First, you have to read the evidence blocks from both sides to see if there is evidence that you believe is true. You can see the evidence blocks for the beach say, "People at the beach build sandcastles. People at the beach jump waves. People at the beach collect seashells. People at the beach sleep on the sand." You can see the evidence blocks for the mountains say, "People sit by a camp fire and make S'mores. People walk through forest and spot deer. People explore the woods and hike. People go fishing in the creek." Since there are four different pieces of

	Lay out early/late blocks Say	evidence, you need to select the two you believe will support your vacation spot. Then, you might say, "I believe vacationing at the beach is a great place to visit because I can build sandcastles and jump the waves." Or maybe you would rather go to the mountains. Then, you might say, "I believe vacationing in the mountains is a great place to visit because I can make S'mores at the fire and spot deer." Do you have any questions? Ok, let's try it.

	Build a tower with the blocks as student talks through claim, reason, evidence
	Layout save/spend blocks
	Say
		Would you rather get up early or stay up late?
		(Give examples if student is struggling to come up with a reason)
		    • Early – get up early, happier, more energy, enjoy the sunrise
		    • Late – watch late night TV, finish reading a book, enjoy the sunset

	Build a tower with the blocks as student talks through claim, reason, evidence
	
	Layout top/medium block
		Would you rather save money or spend money?
		(Give examples if student is struggling to come up with a reason)
		    • Save – in case of emergencies, wait for a bigger present, rich
		    • Spend – get what I want right away, buy presents, poor

		Would you rather have an eraser for the top of your pencil or a medium size eraser? (Give examples if student is struggling to come up with a reason) • eraser top – won't lose it

		• medium eraser – lasts longer, works better

Background Knowledge	Say
	
	Lay out the G.O.
	
	Say
		You are really good at examining the evidence, making decisions, and explaining why you believed the evidence supported your perspective. Yesterday we learned that an **evidence-based argument is a problem solving strategy you can use when you have to think about two choices, decide which choice is best for you, and then support your choice by giving reasons why you made the better choice.** Today I want to talk to you about the elements of an evidence-based argument. Remember the goal of an evidence-based argument is to convince me, or the reader, that you made the best choice. The best way to do this is to use four different elements to build a strong argument. The four elements include:
		   • Introduction – An introduction explains the issue by acknowledging both sides of the issue and making a claim statement.
		   • Claim – A claim is a statement that the author believes is true.
		   • Evidence – Evidence is a quote, a fact, or an example that supports your reasons.
		   • Conclusion – A conclusion summarizes the author's perspective by including the claim and a call to action.
		It is important to know the elements of an evidence-based argument, not only so you know what ideas you need to write down, but also to make sure you convey a clear message.
		What are the four elements of an evidence-based argument?

Clarify Strategy	Say
	
	Lay out the strategy sheet
		Today's strategy is called **Examine the Evidence.** This is a five step process every good author uses when writing an evidence-based argument**:**
		  1. Look at the evidence from both sides.
		  2. Choose a side you would rather defend.
		  3. Select two pieces of evidence from that side.
		  4. Write the reason why you feel this evidence supports your perspective.

	Say	5. Write an I believe…because sentence. Before you can write an evidence-based argument, you must examine the evidence to identify what other people believe. Once you have examined the evidence for both sides of the issue, you choose the side you would rather defend. This thinking process is similar to the games we played earlier, *Would You Rather* and *I believe…because*. Next, you want to select the strongest piece of evidence to build the foundation for your evidence-based argument. If you don't have the evidence, you don't have an argument, you only have an opinion. The fourth step requires you to write a reason explaining what the evidence is supporting. The final step is to create your claim by writing the: *I believe…because*. The goal of the **Examine the Evidence** strategy is to make sure your argument is complete and you convey a clear message.
	Cue video: Barbaric	
	Layout the deconstruction pages Say	Hand students the Multimodal Analysis sheet for note taking during Micro-beads digital text
		Let's try it out with this evidence-based argument. You are about to watch a video titled, "Plastic Micro-beads". This was published by The Story of Stuff, and highlights the barbaric results of using plastic micro-beads in beauty products. You will have a chance to watch the video three times. The first time you will watch it to get a sense of the video. Then we will discuss the modes, modal affordances, and coherence of the digital mentor text. The third time you will watch it to identify the five elements in an evidence-based argument. During the third viewing, you may want to write down information on your graphic organizer so you can remember it when we talk. Let's see if we can **Examine the Evidence**.
	Ask	
		What modes were included or excluded in this video? When I look at the deconstructed pages, I can see the visual mode contained. The oral mode

	Read like a writer Say	included. The written mode included. The audio mode included. The gestural mode helped make meaning about. The tactile mode made me feel. The spatial mode guided what I should read and the movement kept me interested in the content.
	Say	Why do you think the author used those modes? What effect did the modes have on you? For example, when I was watching the visuals. Can you tell me how the visual mode or another mode affected you?
	Ask	One way to identify the introduction is to look at the beginning of the video. The introduction includes a hook to grab the reader's attention; a bridge sentence that acknowledges both sides of the issue; and a claim that states what the author believes. Watch how I highlight the modes that make meaning about the introduction of the argument.
	Say	I like to look at the conclusion of the video to see how the author kept his focus from the beginning to end. One way to identify the conclusion is to look at the end of the video. The conclusion includes the author's perspective sentence that summarizes the argument and a call to action sentence. Watch how I highlight modes at the ending that crate meaning about the conclusion.
	Ask	
	Say	*Do you see how the author restates his claim to signal the reader that the author is finishing his argument?*
	Ask	The next step is to search for the evidence. One way to identify the evidence is to look for quotes, facts, and examples. Once we find the evidence, we should be able to find the reasons. Watch how I highlight quotes, facts, and examples.
	Say	*What do you notice about the modes used for the evidence? Tell me how the modal affordances create an effect?*

	Point to Multimodal Analysis page	The author uses evidence to support his reasons. So once you find the evidence, the reasons will be in the sentence before or the sentence after the evidence. Watch how I read the sentence before and the sentence after to determine the reasons in this argument.
	Say	
		What do you notice about the reasons? Do you think the author could have used different reasons?
	Read like a reader Read like a writer	The author usually supplies a claim in the introduction and conclusion of the single-sided argument. Watch how I examine the modes the author used to help you identify what they believe to be true.
	Ask Point to the G.O. Read like a writer	Which modes created the best meaning for each element? Are there other modes that might convey clearer elements of an evidence-based argument? How do the modes work together to convey the single-sided argument? How do the modes work against conveying the single-sided argument?
		I can paraphrase this evidence-based argument by saying, "The author's perspective on plastic micro-beads is that they are barbaric and he wants companies to replace them with natural scrubbers." This time I want you to **Examine the Evidence** in the evidence-based argument for the opposite side. I will read it to you and I want you to think about what words and phrases you could highlight to show the five elements of this argument.
	Ask Point to the G.O. Read like a writer	Plastic Micro-beads: Beautiful
		What is the first step?

	Ask Point to the G.O. Read like a writer	The introduction the argument is located….(in the first paragraph), What phrases do you notice in the introduction? (hook, bridge, claim) One way to identify the introduction is to look at the first paragraph. The introduction includes a hook to grab the reader's attention; a bridge sentence that acknowledges both sides of the issue; and a claim that states what the author believes. Can you highlight where you see the introduction?
	Ask Point to the G.O. Read like a writer	Tell me how the author's perspective (TSP) is used with the *I believe… because* claim statement? *What is the second step?*
	Ask Point to the G.O. Read like a writer	The conclusion of the argument is…Did the author keep his focus? I like to look at the conclusion paragraph to see how the author kept his focus from the beginning to end. One way to identify the conclusion is to look at the last paragraph. The conclusion includes a summary of the argument and a call to action. Can you highlight words and phrases that give clues to the conclusion?
	Ask	Tell me how the words, *in conclusion*, signal the reader that the author is finishing his argument? *What is the third step?* The evidence for the argument is… One way to identify the evidence is to look for quotes, facts, and examples. Once we find the evidence, we should be able to find the reasons. What types of evidence did the author use? (quote, fact, example) *What do you notice about the location of the evidence?*

		What is the fourth step? The reasons for the argument is…The author uses evidence to support his reasons. So once you find the evidence, the reasons will be in the sentence before or the sentence after the evidence. Does the evidence support the reason? (yes/no)
		What do you notice about the reasons? Do you think the author could have used different reasons?
		What is the fifth step? The claim for the argument is…What words or phrases did the author use to help you identify what they believe to be true?
		Can you paraphrase this evidence-based argument by summarizing the author's perspective, "The author's perspective on ____ is that they are _____ and he wants _____." "The author's perspective on plastic micro-beads is that they are beautiful and he wants people to use them so they stay clean and looking their best." *Do you have any questions about Examining the Evidence?*
		During Writing
Demonstrate Strategy	Say	Now it's time for us to practice using this strategy by writing our own evidence-based argument about this topic. I will go first, then we will try it together, and then you will try it by yourself. I am going to use this paragraph frame to make sure my ideas are connected: *Topic sentence, Some people think…Other people think…I believe that… because .. For example, Another reason… Additionally.., Therefore, I conclude that*
I DO		1. Look at the evidence from both sides. 2. Choose a side you would rather defend. 3. Select two pieces of evidence from that side. 4. Write the reason why you feel this evidence supports your perspective. 5. Write an *I believe…because* sentence.
WE DO	Say	When you start by **Examining the Evidence**, it is easier to make sure you have

		information for each of the five elements. Let's practice writing an evidence-based argument together for the opposite side using the paragraph frame: *Topic sentence, Some people think…Other people think…I believe that… because .. For example Another reason… Additionally.., Therefore, I conclude that*
YOU DO	Say	Now I want you to try it one more time independently. Tell me the steps you are completing and what you are thinking. (Select two pieces of evidence; state a reason; and create a claim statement.)
		After Writing
Evaluate Learning	Say	Tell me what you learned today. Can you tell me the four elements of an evidence-based argument? • Introduction – An introduction explains the issue by acknowledging both sides of the issue and making a claim statement. • Claim – A claim is a statement that the author believes is true. • Evidence – Evidence is a quote, a fact, or an example that supports your reasons. • Conclusion – A conclusion summarizes the author's perspective by including the claim and a call to action. Can you tell me what each element does? Thank you for spending some time with me. Here is a paper for your parents so they know what we worked on today.

Parent Letter: During intervention time today, your child worked with me. We reviewed why it is important to learn how to write an evidence-based argument and how to identify the author's perspective. We played the game, *"I believe…. because…?"* and talked about the importance of including all five elements in an evidence-based argument. Thank you for letting me work with your child. If you have any questions, please feel free to email me at, jbwise@udel.edu
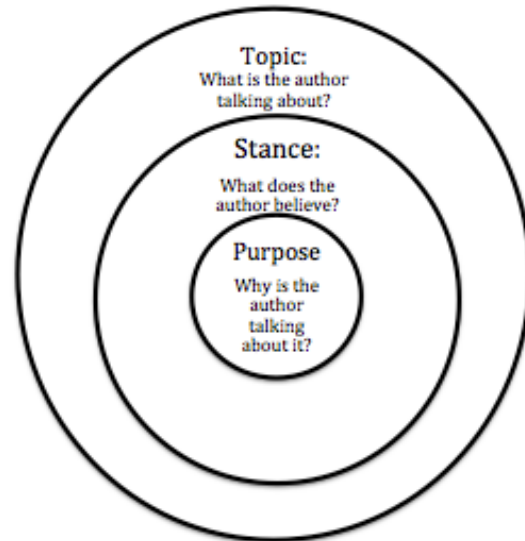
Examine the Evidence	**Elements of an Evidence-based Argument**
1. Look at the evidence from both sides. 2. Choose a side you would rather defend. 3. Select two pieces of evidence from that side. 4. Write the reason why you feel this evidence supports your perspective. 5. Write an *I believe…because sentence*. **Author's Perspective** Remember your perspective guides your argument choices. **Topic:** What is the author talking about? **Stance:** What does the author believe? **Purpose** Why is the author talking about it?	1. Introduction: • Topic Sentence • Bridge Sentence, *Some people think, Others think* • Claim Sentence 2. Claim: • *I believe… because….* 3. Evidence: • A quote, a fact, or an example 4. Conclusion: • *Author's perspective sentence* • *A call to action, What do you want people to do*

Topic sentence, Some people think…, Other people think…, I believe that… because …, For example Another reason… Additionally…, Therefore…, I conclude that…

Plastic Micro-beads: Beautiful or Barbaric?

Plastic micro-beads are used in cosmetics, toothpaste, and cleaning products. They are smooth and tiny pieces of plastic that are used for cleaning. If you have seen a clear bottle of soap containing tiny, colorful beads, you've seen micro-beads. But what happens to these colorful items after they go down the drain? Many environmentalists claim that these beauty products are causing environmental problems. What do you think? Are plastic micro-beads beautiful, or barbaric?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Beautiful

1. Plastic micro-beads are gentler for scrubbing than natural products like sea salt or baking soda.
2. Plastic micro-beads are made from polyethylene plastic, which is safe for use in products.
3. Micro-beads help to exfoliate skin--in other words, they scrub away dead skin cells and help to make skin smoother.
4. Many water systems have filters that can filter out micro-beads.
5. Micro-beads provide "an enjoyable use experience" for consumers.
6. Reformulating products to eliminate micro-beads is a time-consuming and expensive process.
7. Micro-beads are cheaper than other natural scrubbers, like apricot seeds and coconut husks.

Barbaric

1. Most plastic micro-beads go through wastewater treatment plants and flow into rivers and streams, and then go on to the ocean.
2. Many studies have shown that the micro-beads have no cleaning benefit.
3. Plastic micro-beads are small enough to pass through a coffee filter, so most are not filtered at the wastewater treatment plant.
4. Plastic micro-beads are eaten by animals like fish, interfering with digestion and nutrition.
5. In a study, around 35% of 670 fish studied were found to have micro-plastics in their stomachs.
6. Approximately 19 tons of micro-beads may be washing into New York's water each year.
7. Plastic micro-beads have been found in the Great Lakes since 2012.
8. Plastic micro-beads eaten by fish and other creatures could continue up the food chain and even be eaten by people.
9. Many states and some countries have already banned micro-beads or are planning to do so.

Examine the Evidence

Introduction	
Claim	
Evidence	
Conclusion	

Multimodal Analysis of Plastic Micro-beads: Beautiful or Barbaric
https://www.youtube.com/watch?v=uAiIGd_JqZc
by The Story of Stuff (2:11 length)

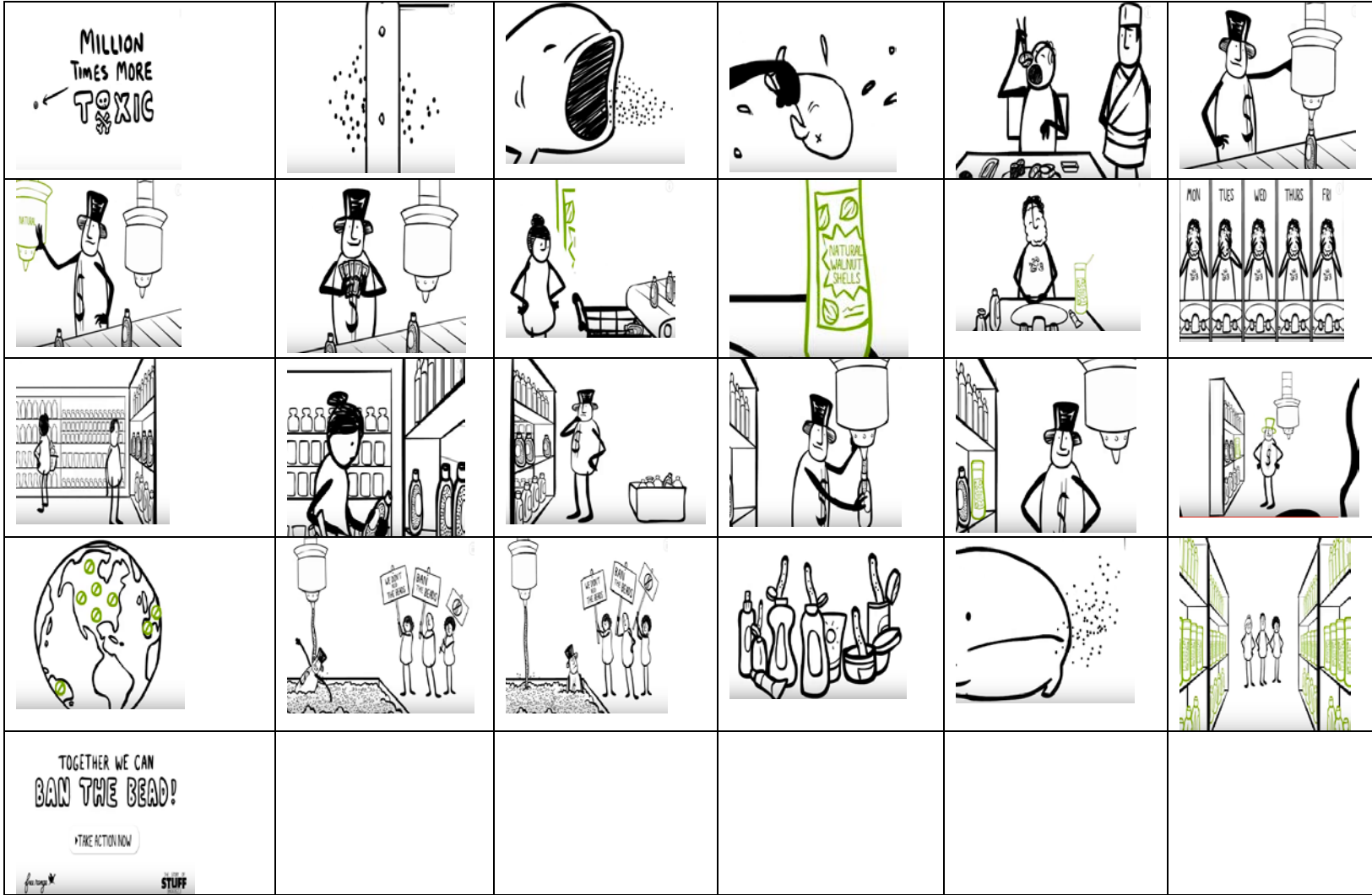| What did you notice?	What evidence is the author using to convey their argument?	What reasons explain the evidence?

What is the author claiming?

Deconstruction of Plastic Micro-beads: Beautiful or Barbaric

https://www.youtube.com/watch?v=uAiIGd_JqZc

By The Story of Stuff (2:11 length)

Visual Mode					

Oral Mode
These are micro-beads. They are little pieces of plastic, smaller than a grain of sand. And they are everywhere. You might be swishing them around in your mouth, or rubbing them in your face. Yuck!
Micro-beads are in lots of stuff but they show up in most personal care products. Face soap, and body wash, toothpaste. You could even be filling those lines with plastic in age defining make-up. Companies put them in these products as exfoliates, or just for texture. But there is no proof that they even help. And you might not realize that you are using them, unless you know what to look for. Buzz, Buzz, Buzz (polyethylene) But the biggest problem with micro-beads is that they are designed to go down the drain. They are so small, most water treatment plants can't capture them so billions are ending up in our water ways every day.
And even worse, these tiny bits of plastic act like sponges, soaking up the toxics around them. So a single micro-bead can end up being a million times more toxic than the water around it. Once in our waterways, they get eaten by fish and other animals and could make their way right back to you in your sushi. How's that for the circle of life?
So why do companies put these plastic micro-beads in their products to begin with? Well, for one, plastic is cheaper than the natural exfoliates we use to use. Plus, it's an excuse to sell more stuff. Those natural exfoliants work so well, you can only use them once a week. Micro-beads are smooth enough to use every day, which means you run out quicker and have to buy more of that product. Sure, we can try and avoid products with micro-beads but isn't the bigger problem what companies put on the shelf in the first place? The good news is some companies are already removing plastic micro-beads from their products. And many places are considering outright bans. No matter where you live, there are ways to take action. Come on, we don't need the beads. Let's get them out of our stuff, out of our waterways, and out of our bodies.
Together we can Ban the Beads! TAKE ACTION NOW

Written Mode			
The Story of Stuff Project	Million times more toxic	We don't need the beads, BAN the BEADS	TOGETHER WE CAN BAN THE BEAD!

Audio Mode					
Door shutting, cheers	Water sound	Chewing sound	Machine/squeeze sound	Grocery beeps background	Squeezing sound
Scrubbing sound	Scrubbing sound	Draining water			
Spray sound	Brushing sound	Squeezing sound	Buzz, buzz, buzz	Buzz, buzz, buzz	Writing sound
Running water sound	Splash sound	Scrubbing sound	Grocery beeps background	Grocery beeps background	Machine sound
Bell sound	Bell sound, Talking background	Sucking sound	Machine sound	Punching sound	Cash register bell
Swimming sound	Knock	Squeezing, instrumental music	Squeezing, instrumental music	Squeezing, instrumental music	Squeezing, instrumental music

Plastic Micro-beads: Beautiful

Plastic micro-beads are tiny balls of plastic about the size of a piece of sand. They are used in personal care products like face washes, sanitizers, and body wash to help scrub your skin clean. Some people think micro-beads end up in the ocean and kill coral. Other people think micro-beads are safe scrubbers to keep us clean. I believe plastic micro-beads are beautiful because my skin stays soft and pimple-free.

For example, micro-beads help to exfoliate skin by scrubbing away dead skin cells to make skin smoother. Plastic micro-beads are gentler for scrubbing than natural products like sea salt or baking soda. Furthermore, micro-beads are cheaper than other natural scrubbers, like apricot seeds and coconut husks.

Although some people believe micro-beads are small enough to pass through a coffee filter, many water systems have filters that can catch the micro-beads. The evidence shows that micro-beads are a beautiful invention that helps keep everyone clean and looking their best.

Step 4: Reading Like a Writer, Milk: Harmful or Helpful?

In this session, students are introduced to alternative perspective sentences that include: introduction, reason, evidence, counterclaim, rebuttal, and conclusion. The students are asked to recall the elements in an evidence-based argument. Alternative perspective sentences will be explained using a traditionally-printed mentor text and a digital mentor text. A counterclaim is defined as acknowledging the opposing position. The rebuttal is using evidence to explain why the counterclaim is not valid. The conclusion restates the position and summarizes the reasons. The goal of this session is to model how to *read like a writer* using a think-aloud to identify and label each element.

Essential Questions	
	What are the elements of alternative perspective sentences?
	Why does an author use alternative perspective sentences?
	How does an author use a counterclaim and rebuttal to strengthen an evidence-based argument?

Analyze digital mentor text, traditionally-printed text	*Milk: Healthy or Harmful*
Read like a reader	focusing on the comprehension of the author's message.
Read like a writer	identifying the perspective in alternative perspective sentences.
	identifying the counterclaim and rebuttal in alternative perspective sentences.
Crafting elements of an evidence-based argument	What type of evidence is being used?
	What reasons does the author give?
	How does this evidence support the reasons?
	How does the author present the claim?
	How do the reasons support the claim?
	How does the introduction and conclusion work together to create an effective argument?
Affordance of mode (s)	Which modes create the best meaning for this argument?
	Are there other modes that might convey a clearer argument?
Coherence of meaning	How do the modess work together to convey the author's perspective?

	How do the modes work against conveying the author's perspective?

Gradual Release for Writing	
I DO	Model how to take evidence and write a counterclaim using the sentence frame: *While it might be true that.... many......*
WE DO	Provide several counterclaims and discuss how it supports the healthy or harmful claim. Select another pieces of evidence and write a counterclaim using the sentence frame. Write alternative perspective sentences supporting the claim that milk is harmful with the paragraph frame: *X is one of the most popular X in the United States. ... On one hand, some say ...... On the other hand, many feel.. I believe that ... because . Recent studies have shed new light on ... For instance, If this continues then... This is significant because...Another view is... in some cases... perhaps After looking closely at both sides of the issue, I believe it is best to.... because*
YOU DO	Independently write a counterclaim with the sentence frame.

Mastery	
Student will be able to	summarize the parts of alternative perspective sentences. summarize the topic, stance, and purpose in alternative perspective sentences. write a counterclaim and rebuttal of alternative perspective sentences.

Verbal Protocol for Traditionally-Printed and Digital Mentor Text

Step 4: Reading Like a Writer, Milk: Harmful or Helpful?

Check	Action	Before Writing

Activate Schema	Say	Let's review what we did yesterday. First we talked about why it is important to have an organized introduction and a strong conclusion in your an evidence-based argument. Can you tell me the parts of an introduction and conclusion paragraph?
		3. Introduction:
		    a. Topic Sentence
		    b. Bridge Sentence, *Some people think, Others think*
		    c. Claim Sentence
		4. Conclusion:
		    a. *Author's perspective sentence*
		    b. *A call to action, What do you want people to do*
		Can you tell me why **Reading like a Writer** helps you convey a clearer message?

Background Knowledge	Say
	
	Lay out strategy sheet
		You are really becoming an expert at thinking through the problem solving strategy of an evidence-based argument. You can think about two choices, decide which choice is best for you, and then support your choice by giving claims, reasons, and evidence for why you made the better choice. **Today I want to talk to you about a counterclaim in an evidence-based argument.** Remember the goal of an evidence-based argument is to convince me, or the reader, that you made the best choice. The best way to do this is to use a counterclaim by identifying the opposite perspective and then using evidence to offer a different solution. A counterclaim includes:
		2. Counterclaim:
		    • Identify the other side, offer a different solution
		    • *While it might be true that/many, Even though/most*
		It is important to know how to use a counterclaim in an evidence-based argument, not only so you know what ideas you need to write down, but also to make sure you tell

		the reader that you have already thought about their perspective.
		What are the parts of counterclaim in an evidence-based argument?
	Ask	

Clarify Strategy	Say	The goal of the **counterclaim** strategy is to make sure you identifying the opposite perspective and then using evidence to offer a different solution.
	Lay out Milk: Healthy Say	Let's read this evidence-based argument to identify the six elements. I will read it to you and then we will work together to see if we can **identify the counterclaim**.
	Read like a reader Say	Milk: Healthy One way to identify the counterclaim is to look at the first paragraph. The introduction has a bridge sentence that acknowledges both sides of the issue. Watch how I highlight the bridge sentence. The counterclaim is also used in the third or fourth paragraph. The conclusion paragraph can sometimes have a counterclaim as well.
	Ask	*What do you notice about the location of the counterclaim?* *Tell me how the counterclaim is used to make the argument stronger?* *Do you think the author could have used different reasons?*
	Say	This time I want you to examine the counterclaim in the evidence-based argument for the opposite side. I will read it to you and I want you to think about what words and phrases you could highlight to show the counterclaim of this argument.
	Read like a writer	Milk: Harmful
	Ask	The counterclaim in the introduction the argument is ….(in the bridge sentence) *What words or phrases did the author use to help you identify the counterclaim?*
	Ask	The counterclaim in the third paragraph is…. *What words or phrases did the author use to help you identify the counterclaim?*
		The counterclaim in the conclusion is… *What words or phrases did the author use to help you identify the counterclaim?*

	Ask	Can you paraphrase this evidence-based argument by summarizing the author's perspective, "The author's perspective on _____ is that they are _____ and he wants _____."
	Ask	*Do you have any questions about creating a counterclaim?*
		During Writing
Demonstrate Strategy	Say	Now it's time for us to practice using this strategy by writing our own counterclaims in our evidence-based argument about this topic. I will go first, then we will try it together, and then you will try it by yourself. I am going to use this paragraph frame to make sure my ideas are connected: *Topic sentence, Some people think…Other people think…I believe that… because … For example Another reason… Additionally. While it might be true that/many, Even though/most… Therefore, I conclude that*
I DO	Say	Watch as I write a two-sided evidence-based argument together for the opposite side using the paragraph frame: *Topic sentence, Some people think…Other people think…I believe that… because … For example Another reason… Additionally, Therefore, I conclude that*
WE DO	Say	When you start create a counterclaim, it is easier to make sure you have information for each of the six elements. Let's practice writing a two-sided evidence-based argument together for the opposite side using the paragraph frame: *Topic sentence, Some people think…Other people think…I believe that… because… For example Another reason… Additionally…, Therefore, I conclude that*
YOU DO	Say	Now I want you to try it one more time independently. Tell me the steps you are completing and what you are thinking. (Select two pieces of evidence; state a reason; and create a claim statement.)
		After Writing
Evaluate	Say	Tell me what you learned today.

Learning		Can you tell me the six elements of a two-sided evidence-based argument?
		1. Introduction:
		• Topic Sentence
		• Bridge Sentence, *Some people think, Others think*
		• Claim Sentence
		2. Claim:
		• *I believe… because….*
		3. Reasons:
		• *For example, Another reason, Furthermore…*
		4. Evidence:
		• A quote, a fact, or an example
		• According to/believes, Furthermore/states, Finally/suggests
		5. Counterclaim:
		• Identify the other side, offer an different solution
		• *While it might be true that/many, Even though/most*
		6. Conclusion:
		• *Author's perspective sentence*
		• *A call to action, What do you want people to do*
		Can you tell me why it is important to write a counterclaim?
		How did the mentor texts help you learn about writing an evidence-based argument?
		Thank you for spending some time with me. Here is a paper for your parents so they know what we worked on today.

Parent Letter: During intervention time today, your child worked with me. We reviewed the parts of an introduction and conclusion paragraph and how to *Read like a Writer*. We talked about the importance of **creating a counterclaim** when writing an evidence-based argument. Thank you for letting me work with your child. If you have any questions, please feel free to email me at, jbwise@udel.edu

Read like a Writer	**Examine the Evidence**

Read like a Writer

1. Skim through the text to notice the author's style.
2. Do a close reading of the element you are writing.
3. Ask yourself what you could use in your writing:
   - Look at the way the introduction/conclusion.
   - Look at the topic sentence in each paragraph.
   - Look at the transition words in the beginning of sentences.

Author's Perspective
Remember your perspective guides your argument choices.

Topic:
What is the author talking about?

Stance:
What does the author believe?

Purpose
Why is the author talking about it?

Examine the Evidence

1. Look at the evidence from both sides.
2. Choose a side you would rather defend.
3. Select two pieces of evidence from that side.
4. Write the reason why you feel this evidence supports your perspective.
5. Write an *I believe…because* sentence.

Elements of an Evidence-based Argument

1. Introduction:
   - Topic Sentence
   - Bridge Sentence, *Some people think, Others think*
   - Claim Sentence
2. Claim:
   - *I believe… because….*
3. Reasons:
   - *For example, Another reason, Furthermore…*
4. Evidence:
   - A quote, a fact, or an example
   - According to/believes, Furthermore/states, Finally/suggests
5. Counterclaim:
   - Identify the other side, offer an different solution
   - *While it might be true that/many, Even though/most*
6. Conclusion:
   - *Author's perspective sentence*
   - *A call to action, What do you want people to do*

X is one of the most popular X in the United States. … On one hand, some say …… On the other hand, many feel.. I believe that … because . Recent studies have shed new light on … For instance, If this continues then… This is significant because…Another view is… in some cases… perhaps After

Milk: Healthy or Harmful?

Everyone has seen the commercials showing that milk does a body good. But is it really necessary for a healthy diet? Those in favor of milk explain that it contains many important nutrients. Those against milk show the negative aspects of drinking milk and that other foods can contain the same nutrients. What do you think? Is milk healthy or harmful?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Healthy

1. Milk is a good source of many nutrients (Connie Weaver, director of the nutrition program at Purdue University)
2. Three servings of milk each day are recommended for adults (USDA)
3. Milk is a more convenient way to get certain nutrients than other foods (California Dairy Council)
4. To get same calcium as in milk, would need 5.3 cups of leafy greens
5. Milk is a good source of protein
6. For picky eaters, milk is a good source of calories and protein (Dr. Jonathan Maguire, pediatrician at St. Michael's Hospital)
7. Milk is fortified with Vitamin D, an important nutrient hard to get from other foods (Live Science)
8. A study has shown that children who drink plain or flavored milk do not have a higher BMI (body mass index) than children who do not drink milk (Journal of the American Dietetic Association)
9. In the same study, children who drank milk consumed more important nutrients like calcium, Vitamin A, and potassium

Harmful

1. Other foods provide the same nutrients as milk
2. Most people in the world do not drink milk after childhood (Amy Lanou, professor of nutrition at University of North Carolina at Asheville)
3. Calcium can keep the body from absorbing iron, so too much milk can lead to anemia (Dr. Jonathan Maguire, pediatrician at St. Michael's Hospital)
4. Milk can make kids feel full, leaving them with less of an appetite for other healthy foods
5. One gallon of milk takes 880 gallons of water to produce (National Geographic)
6. Ounce for ounce, milk has the same calorie load as soda (Neal Barnard, president of the Physicians Committee for Responsible Medicine)
7. A milk allergy affects 1.3 million children, making milk allergies the second most common food allergies (New York Times)
8. Leafy greens, seafood, and legumes also contain calcium (ABC News)

Examine the Evidence

Introduction

Claim	

Reason		

Evidence				

Conclusion

Multimodal Analysis of Milk: Healthy or Harmful?

https://www.youtube.com/watch?v=tseEEQC3SZE
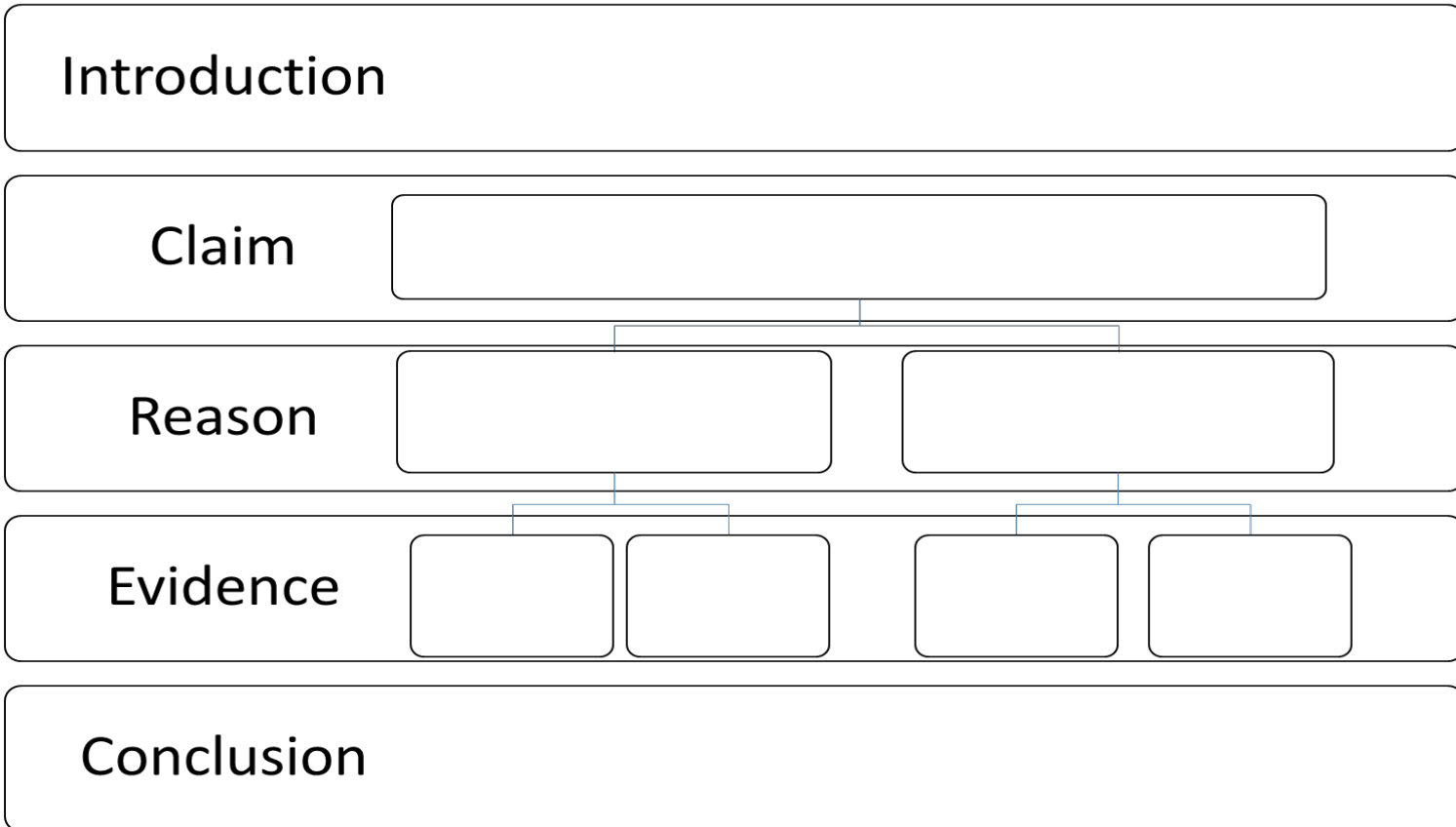
By Discovery News (3:00 length)

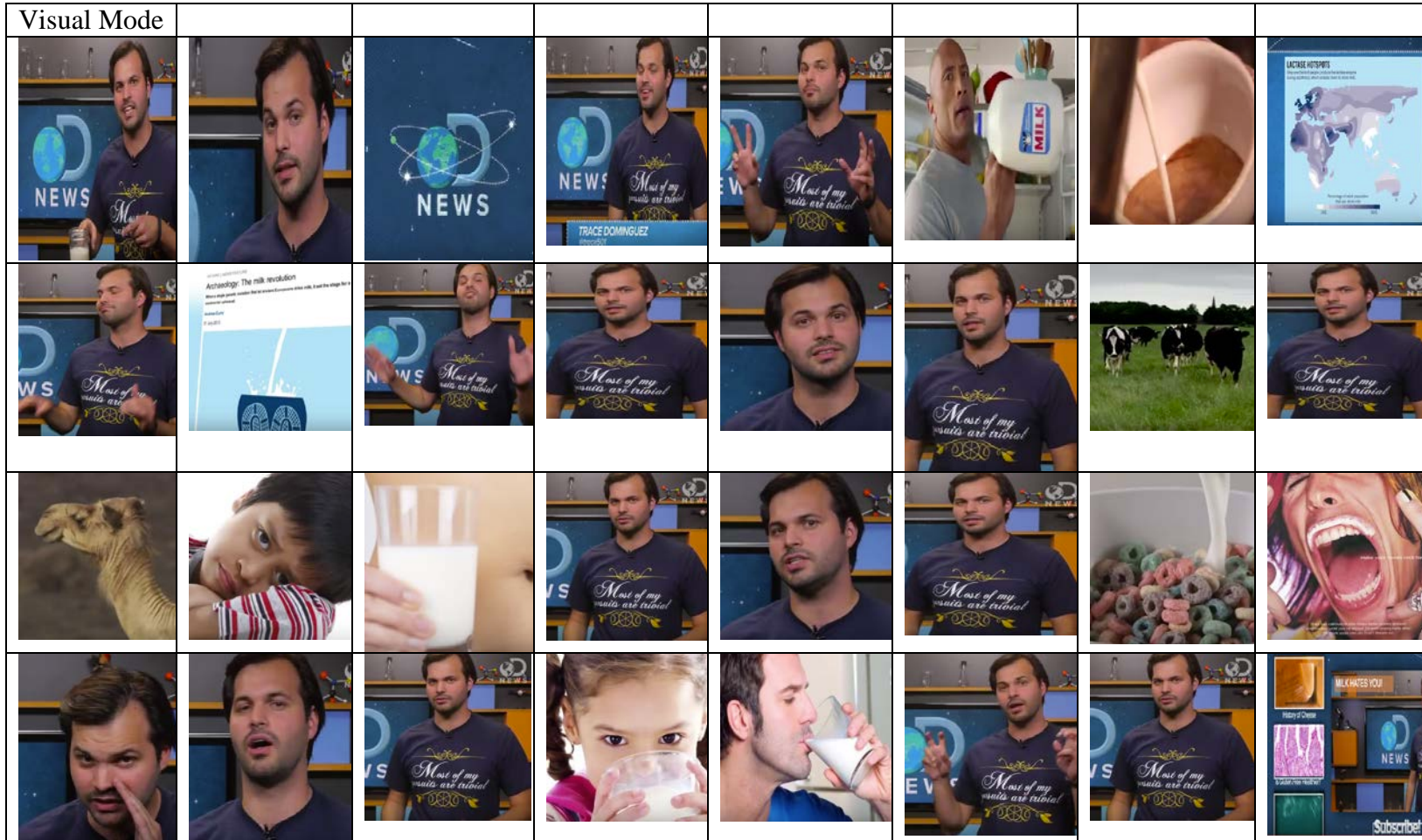| What did you notice?	What evidence is the author using to convey their argument?	What reasons explain the evidence?

What was the author claiming?

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Multimodal Analysis of Milk: Healthy or Harmful
https://www.youtube.com/watch?v=tseEEQC3SZE
(3:00 length)

I

Visual Mode							

Multimodal Analysis of Milk: Healthy or Harmful
https://www.youtube.com/watch?v=tseEEQC3SZE
(3:00 length)

Oral Mode
Is this a nice cold glass of tasty milk or a toxic liquid causing a horrible future of diarrhea? It could be both. Howdy folks. Trace here gathering all the science for D news about milk. The ads have been running for years asking if we "got milk" and how it "does the body good." We're out of milk. Dairy consumption is a traditionally an activity for a lot of Americans, Europeans, and some Africans but the rest of the world, not so much. According to the Journal of Nature, non-human milk was toxic to adults during the last ice age. 11,000 years ago we started making cheese because it wasn't toxic. It has less lactose. Plus we could store and eat it. If a harvest failed or a hunt wasn't successful, our ancestors could consume cheese to sustain themselves. Normally, humans drank milk from birth until their weaning and then genes shut off the enzymes to digest it. But some gene mutations changed all of that and now we can drink milk forever. Or some people can. We use that advantage to change from hunters and gatherers to farmers. It was awesome then but is it still? With 5, 000 animals on the planet producing milk, why do we drink the milk of a cow? Well, because of business. Sure there is flavor, texture, and tradition, but we've domesticated cows because they are docile, and they are easy to contain. Thus making their milk easier to obtain and sell. In some countries, goats' milk is popular but it doesn't produce a high enough yield per animal to turn a profit. In the U.S. Department of Agriculture, is still trying to decide if camel milk can be sold in America. So simple domestication and 10 gallon yields per day make cows the big winners of the dairy world. The thing is, after ages 8, 65% of the people on Earth, are lactose intolerant. Most people, can't actually drink milk. It's the lactose tolerant people that are the weirdoes of humanity. Of those, most trace their ancestry back to Europe or Africa where those gene mutations occurred. Even still a dairy allergy, which is not lactose intolerance, is one of the most commonly reported food allergies just below peanut allergies. Milk can cause bloating, constipation, acid reflux, and has been clinically connected to increased mucus generation, congestion, sinus problems, migraines, increased eczema, and joint

pain. It's doing a body good.

Whether you're lactose tolerant or not, is milk actually a healthy beverage? Well, let's look at the biggest selling point: calcium. We are told milk builds strong bones. That's not strictly speaking true. In fact, several studies show that when it comes to building stronger bones, calcium intake is only a small part of the equation, along with genetics, life style, and getting enough Vitamin D from exposure to the sun. Calcium is definitely important for kids and adults but milk isn't the only source. You can also get it from fish, beans, greens, almonds, oranges, lettuce, seeds, and a lot of other places.

So drinking milk for enjoyment is one thing but drinking milk for the calcium or for health reasons is debatable. I am cool with that tall glass of water. Is knowing some facts about milk going to change how much you drink? Tweet us @dnews

Multimodal Analysis of Milk: Healthy or Harmful
https://www.youtube.com/watch?v=tseEEQC3SZE
(3:00 length)

Audio Mode				
Electronic music				

Written Mode					
Dnews	Trace Dominguez @trace501	Archaeology: The milk revolution	Archaeology: The milk revolution		

Milk is Healthy: It does a Body Good

Milk is one of the most popular drinks in the United States. On one hand, some say milk contains many important nutrients. On the other hand, many feel drinking milk may do more harm to our bodies than good. I believe that milk provides important nutrients because growing children need calcium to help build strong bones.

For example, milk is a good source of important nutrients. For picky eaters, milk is a good source of calories and protein. Additionally, Milk is fortified with Vitamin D, an important nutrient hard to get from other foods. A recent study has found children who drink milk consumed more important nutrients like calcium, Vitamin A, and potassium.

According to experts, many people cannot safely drink milk from cows. In some cases, people are allergic to or intolerant of lactose, a natural sugar present in the milk of cows. Dietary and allergy issues have led to the development of an assortment of other types of milks made from plant sources including soymilk, rice milk, coconut milk, almond milk, and cashew milk. While it might be true that plant-based milks tend to have fewer calories, less fat, and cholesterol than dairy milk, many lack the vitamins and other nutrients found in dairy milk.

Milk is fortified with many nutrients that are hard to get from other foods. Even through1.3 million children have a milk allergy; there are medicines like Lactaid that help them digest the milk. Drinking 3 servings of milk a day is worth it!

Examine the Evidence

Introduction		
Claim		
Reason		
Evidence		
Conclusion		

Step 5: Extend the Conversation, Daylight Saving Time: Worth It or Worthless?
In this session, students are asked to recall the elements in an evidence-based argument and the strategies of Target the Author's Perspective, Examine the Evidence, and Reading like a Writer. The goal of this session is to model how to use the *Read like a Writer* strategy to help plan and expand the paragraphs with reasons, evidence, and tie-in sentences. The reason restates the position by providing examples. Evidence is defined as information from other sources. A tie-in is defined as explaining how the evidence supports the reason. The prompt provides a rationale for the students to analyze two mentor texts and develop evidence-based writing practices so they can engage in a critical dialogue, ponder evidence, broaden perspectives, and make an informed decision about Daylight Saving Time. Is Daylight Saving Time: Worth It or Worthless?

Essential Questions	
	What are tie-in sentences in an evidence-based argument?
	Why does an author use reasons and evidence evidence-based argument?
	How does an author use a tie-in sentence to strengthen an evidence-based argument?

Analyze digitally-printed text	*Daylight Saving Time: Worth It or Worthless?* https://www.youtube.com/watch?v=kw462Xbbzng
Read like a reader	focusing on the comprehension of the author's message.
Read like a Writer	identifying the topic, stance, and perspective in an evidence-based argument. identifying the elements in an evidence-based argument. identifying the three parts in an evidence-based argument.
Crafting elements of an evidence-based argument	How does the author present the reasons? What type of evidence is being used? How does the tie-in sentence explaining how the evidence supports the reason? How does the introduction and conclusion work together to create an effective argument?

Gradual Release for Writing	
I DO	Model how to take evidence and write a counterclaim using the sentence frame:

	One reason, For example, This is significant because...
WE DO	Provide several counterclaims and discuss how it supports the rigorous or ruin claim. Select another pieces of evidence and write a counterclaim using the sentence frame. Write an evidence-based argument supporting the claim that standardized tests are rigorous with the paragraph frame: *X is one of the most popular X in the United States. ... On one hand, some say ...... On the other hand, many feel.. I believe that ... because . Recent studies have shed new light on ... For instance, If this continues then... This is significant because...Another view is... in some cases... perhaps After looking closely at both sides of the issue, I believe it is best to.... because*
YOU DO	Independently write a counterclaim with the sentence frame.

Mastery	
Student will be able to	summarize the elements of an evidence-based argument. summarize the topic, stance, and purpose in an evidence-based argument. plan and expand a paragraph with reasons, evidence, and tie-in sentences.

Verbal Protocol Digital Mentor Text

Step 5: Extend the Conversation, Daylight Saving Time: Worth It or Worthless?

Check	Action	Before Writing

Activate Schema	Say	Let's review what we did yesterday. First, we talked about why it is important to have an organized introduction and a strong conclusion in your an evidence-based argument. Can you tell me the parts of an introduction and conclusion paragraph?
		5. Introduction:
		    a. Topic Sentence
		    b. Bridge Sentence, *Some people think, Others think*
		    c. Claim Sentence
		6. Conclusion:
		    a. *Author's perspective sentence*
		    b. *A call to action, What do you want people to do*
		Can you tell me why **Reading like a Writer** helps you convey a clearer message?

Background Knowledge	Say
	
	Lay out strategy sheet
		You are really becoming an expert at thinking through the problem solving strategy of an evidence-based argument. You can think about two choices, decide which choice is best for you, and then support your choice by giving claims, and evidence for why you made the better choice. **Today I want to talk to you about the reason paragraphs in an evidence-based argument.** Remember the goal of an evidence-based argument is to convince me, or the reader, that you made the best choice. The best way to do this is to use paragraphs that include reasons, evidence, and a tie-in sentence.
		4. Reason:
		    a. *Restates the position by providing examples that the reader may value.*
		5. Evidence:
		    a. *Positive or negative information from other sources to support your*

	Ask	*claim.* 6. A tie-in: a. *Explaining how the evidence supports the reason. Tell the reader why you need to convince them?* Can you tell me why **reason paragraphs** help you convey a stronger argument? It is important to know how to use reason paragraphs in an evidence-based argument, not only so you know what ideas you need to write down, but also to make sure you tell the reader that you have already thought about their perspective. *What are the parts of a reason paragraph in an evidence-based argument?*
Clarify Strategy	Say Lay out Ruin Say Read like a reader Say *Ask* *Ask* *Ask*	The goal of the **reason paragraph** strategy is to make sure you identifying values that the reader may have and then using evidence to offer positive or negative information to support your claim. The tie-in sentence explains how the evidence supports the reasons. This makes the essay more persuasive. Let's read this evidence-based argument to identify the three parts of a reason paragraph. I will read it to you and then we will work together to see if we can **identify the reasons, positive/negative information, and tie-in sentence**. **Daylight Saving Time: Worthless?** One way to identify the reason paragraph is to look at the middle of the essay. The introduction has a counterclaim that acknowledges both sides of the issue. Watch how I highlight the reasons. The counterclaim is also used in the third or fourth paragraph. The conclusion paragraph can sometimes have a counterclaim as well. *What do you notice about the location of the reasons?* *Tell me how the reasons are used to make the argument stronger?* *What do you notice about the positive/negative information?* *Tell me how the information is used to make the argument stronger?*

	Say	*What do you notice about the tie-in sentence?* *Tell me how the tie-in sentences are used to make the argument stronger?* This time I want you to examine the reason paragraph in the evidence-based argument for the opposite side. I will read it to you and I want you to think about what words and phrases you could highlight to show the reason paragraphs of this argument.
	Read like a writer	
	Ask	**Daylight Saving Time: Worthless?**
	Ask	*The reason sentence is in the ….(beginning of each reason paragraph)* *What words or phrases did the author use to help you identify the reason sentence?*
	Ask	*The positive/negative information is…. (used in the middle of each reason paragraph)* *What words or phrases did the author use to help you identify the positive/negative information?*
	Ask	*The tie-in sentence is... (used at the end of each reason paragraph)* *What words or phrases did the author use to help you identify the tie-in?* Can you paraphrase this evidence-based argument by summarizing the author's perspective, "The author's perspective on _____ is that they are _____ and he wants _____."* *Do you have any questions about creating a reason paragraph?*
		During Writing
Demonstrate Strategy	Say	Now it's time for us to practice using this strategy by writing our own reason paragraph in our evidence-based argument about this topic. I will go first, then we will try it together, and then you will try it by yourself. I am going to use this paragraph frame to make sure my ideas are connected: *Topic sentence, Some people*

		think…Other people think…I believe that… because .. For example Another reason… Additionally. While it might be true that/many, Even though/most.. Therefore, I conclude that
I DO	Say	Watch as I write an evidence-based argument for the opposite side using the paragraph frame: *Topic sentence, Some people think…Other people think…I believe that… because .. For example Another reason… Additionally… Therefore, I conclude that*
WE DO	Say	When you start create a reason paragraph, it is easier to make sure you have a reason, positive/negative information, and a tie-in sentence. Let's practice writing an evidence-based argument together for the opposite side using the paragraph frame: *Topic sentence, Some people think…Other people think…I believe that… because… For example Another reason… Additionally… Therefore, I conclude that*
YOU DO	Say	Now I want you to try it one more time independently. Tell me the steps you are completing and what you are thinking. (Select evidence and then create a reason, positive/negative information, and tie-in.)
		After Writing
Evaluate Learning	Say	Tell me what you learned today. Can you tell me the three parts of a reason paragraph? 2. Evidence: • Reasons of value: *For example, Another reason, Additionally…* • Positive/Negative Information: A quote, a fact, or an example - *According to/believes, Furthermore/states, Finally/suggests that* • Tie-In Sentence: Explain how you convinced your reader Can you tell me why it is important to write a reason paragraph with these three

		parts? How did the mentor texts help you learn about writing an evidence-based argument? Thank you for spending some time with me. Here is a paper for your parents so they know what we worked on today.

Parent Letter: During intervention time today, your child worked with me. We reviewed the parts of a reason paragraph and how to *Read like a Writer*. We talked about the importance of **including reasons of value, positive/negative information, and a tie-in sentence** when writing an evidence-based argument. Thank you for letting me work with your child. If you have any questions, please feel free to email me at, jbwise@udel.edu

Read like a Writer	**Examine the Evidence**

Read like a Writer

1. Skim through the text to notice the author's style.
2. Do a close reading of the element you are writing.
3. Ask yourself what you could use in your writing:
   - Look at the way the introduction/conclusion.
   - Look at the topic sentence in each paragraph.
   - Look at the transition words in the beginning of sentences.

Author's Perspective

Remember your perspective guides your argument choices.

Topic:
What is the author talking about?

Stance:
What does the author believe?

Purpose
Why is the author talking about it?

Examine the Evidence

6. Look at the evidence from both sides.
7. Choose a side you would rather defend.
8. Select three pieces of evidence from that side.
9. Write the reason why you feel this evidence supports your perspective.
10. Write an *I believe…because* sentence.

Elements of an Evidence-based Argument

5. Introduction:
   - Topic Sentence, *hook, definition, ask a question, fact*
   - Bridge Sentence, *Some people think, Others think*
   - Claim Sentence
6. Claim:
   - *I believe… because….*
7. Evidence:
   - <u>Reasons of value</u>: *For example, Another reason, Additionally…*
   - <u>Positive/Negative Information</u>: A quote, a fact, or an example - *According to/believes, Furthermore/states, Finally/suggests that*
   - <u>Tie-In Sentence:</u> Explain how you convinced your reader
8. Conclusion:
   - *Author's perspective sentence*
   - *A call to action, What do you want people to do*

Topic sentence, Some people think…Other people think…I believe that… because .. For example Another reason… Additionally, According to/believes, Furthermore/states, Finally/suggests that   Therefore, I conclude that

Daylight Saving Time: Worth It or Worthless?

Twice a year, most Americans change their clocks. We fall back in the autumn and spring ahead each spring. Daylight Saving Time is supposed to help lengthen days. But critics say that these time changes are unnecessary. Is daylight savings time worth it, or worthless?

What do you think?
- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Worth It

8. During Daylight Saving Time, clocks are moved so that there is more daylight in the evening hours, instead of in the early morning when most people are not awake
9. Daylight Saving Time allows people more time in the evenings after school and work to exercise, enjoy outdoor time, or participate in sports
10. Gas and grill businesses like Daylight Saving Time because more people grill outside, causing them $200 million more in sales
11. In Britain, a study showed that children's activity levels rise 15 to 20 percent during the summer and dip again when clocks are turned back
12. The number of pedestrian and bicycle deaths decrease during Daylight Saving Time, probably because of longer daylight hours
13. Daylight Saving Time results in energy savings of 1.3 terawatt-hours, or 0.03%, each year
14. Every state in the United States except Arizona and Hawai'i participates in DST

Worthless

7. Matthew Kotchen, economist at the University of California, found that energy use actually rose by 1% during daylight savings time in Indiana
8. A German scientist has found that changing clocks back and forth interferes with people's natural body rhythms, interfering with their sleep
9. There are spikes in workplace accidents after Daylight Saving Time
10. Daylight Saving Time causes problems with transportation routes because some countries participate and some don't; some estimates claim that it takes airlines $147 million to line up the schedule change with international routes
11. Farmers dislike Daylight Saving Time because they have less time in the busy summer mornings to pick crops and get them to harvest
12. When Daylight Saving Time begins, many children go to school in the dark

Read Like a Writer

Introduction	Introduction
Claim	Claim
Evidence	Evidence
Conclusion	Conclusion

Elements	
Introduction	
Claim	
Evidence Reason Positive/Negative Tie-in	
Conclusion	

Daylight Saving Time: Worth It or Worthless

What did you notice?	What evidence is the author using to convey their argument?	What reasons explain the evidence?

What is the author claiming?

Transcript for Daylight Saving Time: Worth It or Worthless
https://www.youtube.com/watch?v=kw462Xbbzng
(4:17 length)

Visual Mode					

Oral Mode
In spring we move our clocks forward an hour and then in fall we move them back an hour. That section in between we call that daylight savings time. Oh it's singular, sorry. I mean daylight saving time. It may seem pretty straightforward but daylight saving time has both serious repercussions and major benefits. In the United States of America, 48 states observe daylight saving time with Hawaii, most of Arizona, and the US territories of: Guam, American Samoa, Puerto Rico, and the US Virgin Islands choosing to ignore it. In spring the 48 states all jump ahead an hour and the immediate effect can be disastrous. One study found that the average American worker loses 40 minutes of sleep when the clock springs forward. That means lots of people could be losing an hour of sleep or more on the same night essentially giving us all jet lag. And sleep deprivation can lead to serious health issues. According to studies the first Monday of daylight saving time has 25% more heart attacks than a typical Monday. Car accidents go up 17% in the days after time shift. Workplace accidents go up about 6%. Works are 67% more likely to miss work due to these accidents. Productivity goes way down the first Monday after daylight saving time. Daylight saving time isn't even universal. Fewer than half of the countries in the world actually use it and few agree on when it starts or ends. The switch to Daylight Saving Time has a lot of negatives so why do we do it all? The real reason we kept daylight saving time and extended it, economics. Some studies suggest we spend money when it's sunny outside. If it's light out after work or school people spend more at the shops. From 1968 to 1971 the UK kept their version of daylight saving time for the whole year and traffic deaths declined by 11% because it was light after work during the winter. Another recent study found that kids are more likely to exercise outside during the winter daylight saving time rather than huddling inside after school. With benefits and negative effects it's no wonder daylight saving time has opponents and supporters but on what side of the clock to you stand?

Written Mode					
spring	fall	Daylight Savings Time Daylight Saving Time	Serious Repercussions Major Benefits	48 states states Us Territories	Don't observe DST
Average American Worker 40	1st Mon 25% 17% 6% 67%	Productivity	Countries that observe DST	Different start and end dates	Why do we do it at all
Economics	$$$$$$$$$	1968 – 1971 11% decline traffic deaths	Kids exercise more in the winter	Benefits Negative effects	Which side of the clock do you stand?

Audio Mode					
Ticking music	Instrumental music	Swishing transition slides	Heart rate	Car crash	Someone falling
Crowd talking	Honking and motor cars	Crickets nature			

Daylight Savings Time is Worth It!

Daylight Savings time has been practiced in the U.S. for about 100 years. During the autumn, the clocks are dropped back an hour, and in the spring, clocks are moved forward one hour. This is done in order to maximize the availability of natural sunlight throughout the year. In order to minimize disruption in routines, the time change occurs at 2 a.m. on a Sunday morning when the majority of individuals are asleep.

Years ago, back in the 19th century before electricity was a common installment in households and businesses, the idea of Daylight Savings time was conceived. While in modern time, the changing of the clocks is often linked to energy conservation, historically the philosophy behind Daylight Savings time is rooted in economics. Adding an extra hour of sunlight to the day meant higher production, with more daylight during a business' operational hours people could work longer and then have more time after they finished their duties to shop at other businesses.

Nowadays Daylight Savings time is most often linked to energy. While this sounds positive, there are also some disadvantages to the practice of changing the clocks twice a year. Here are a few of the top advantages of Daylight Savings time:

• Electricity Conservation: The U.S. Department of Transportation determined that electricity usage in the U.S. is cut by 1 percent daily thanks to Daylight Savings time. In this age of going green, this level of electricity savings is significant. Although some estimate the savings is a bit less at half a percent, but still a savings.

• Maximize Natural Daylight: By the clocks "falling behind" an hour in the autumn and "springing ahead" the hour in the spring, this helps maximize natural daylight by aligning the clock with the sunrise and sunset. For workers this makes for a more pleasant commute and for children, this increases safety for children who otherwise might be traveling to school in the dark during the winter mornings.

Moreover, reports and statistics are emerging which indicate that accidents could be reduced with longer daylight hours; in this respect changing the clocks would be an advantage if less accidents were to occur.

• Health Effects: Many in favor of Daylight Savings time argue that changing the clock on a biannual basis is beneficial to health. With extra daylight artificially built into the day, people might be more inclined to exercise and engage in activities which keep them moving, rather than going home because its dark and as an alternative opting for more sedentary activities.

While it is true people can still go to the gym during the "dark months", where it is artificially lighted during, club memberships can be expensive, and other forms of exercise are free, but not optimal for darkness. Economically people are more likely to engage in free forms of exercise, but this means several months of the year individuals might be less active.

  • Business Benefits: For some industries commercial sales increase with the time changes. Businesses such as retail, sports, those associated with tourism, and other companies often find their sales increase when the hours after work are lengthened because people are more inclined to engage in shopping or recreational activities.

  In this respect, Daylight Savings time benefits everyone because the economy is stimulated, and this has a ripple effect on the job market as well. If business is too slow, companies may be more inclined to do a higher percentage of seasonal layoffs.

Daylight Savings Time is Worthless!

Clocks will be "falling back" an hour this Sunday, marking the end of daylight saving time (DST) and the beginning of an old debate as to whether the practice should be continued. Although some people relish the opportunity to gain an extra hour of sleep every fall, many Americans don't see the necessity in adjusting their clocks — and their schedules — twice a year. With so much opposition to DST, here are a few reasons why it might be time to stop changing the clocks.

1. An unpopular tradition: The main argument against daylight saving time is simple: People don't like to do it. According to a [Rasmussen report](#) from March of 2013, only 37 percent of Americans believe that DST should continue, while 45 percent said that the practice was pointless and was not "worth the hassle."

2. Farmers: Much of the argument for maintaining DST lies in the belief that the practice is beneficial to farmers. However, the changing hours have little to no effect on the daily tasks required on a farm, according to Hillary Barile, partner at Rabbit Hill Farms, of Shiloh. "There's still the same number of daylight hours, but I would say this time of year makes it even harder," said Barile. "We don't have as many evening daylight hours left and you're still constrained by the clock, but now it just gets darker earlier." She added, "You don't always know until you get started in the morning what you need to do, so having morning daylight doesn't always make a difference."

3. Safety concerns: Changing the clocks means waking up and going to bed at different hours, but it can also create a higher risk of traffic accidents for commuters who normally drive home during daylight hours. A [study](#) published by the New England Journal of Medicine suggests that drivers unaccustomed to the time differences due to DST are more likely to get into accidents due to disrupted circadian rhythms and insufficient sleep. "As a society we are chronically sleep-deprived and that small additional losses of sleep may have consequences for public and individual safety," said Dr. Stanley Coren in his report.

4. Health hazards: Changing an individual's schedule by a single hour might not just interrupt their day, but could also be hazardous to their health. Recent studies have linked the beginning and end of DST to a variety of health problems, including an [increased risk of heart attacks](#) and a rise in [suicide rates](#). According to Dr. Sean Duffy, an associate professor of Psychology at Rutgers-Camden, DST is not only a risk to physical health, but it could negatively affect a person's mood. "Falling back" in the winter marks the beginning of early nights, sometimes leading to symptoms of depression. "The change in DST in fall is also a marker of the end of the summer season and the beginning of winter," said Duffy. "This can be depressing for those longing for the extravagances of summer."

5. Interrupted sleeping schedules: Setting clocks back an hour means gaining an extra hour of sleep time. For others who might be more sensitive to time changes, however, going to bed an hour later could cause anything but sweet dreams.

According to Dr. Sean Duffy, an associate professor of Psychology at Rutgers-Camden, time changes could upset a person's natural sleeping schedule. In some cases, the process of adjusting to "springing forward" and "falling back" can affect learning and memory processes by changing the way that the brain functions. "Sleep is a critical process for the whole body, helping it repair damage, but particularly for the brain, which consolidates memory and helps us learn," said Duffy. "Most people can handle the one hour switch of daylight saving time but if you are prone to sleep disorders or insomnia, the change in timing can take some adjustment."

Elements	
Introduction	
Claim	
Evidence Reason Positive/Negative Tie-in	
Conclusion	

Read like a Writer	**Examine the Evidence**
1. Skim through the text to notice the author's style. 2. Do a close reading of the element you are writing. 3. Ask yourself what you could use in your writing: • Look at the way the introduction/conclusion. • Look at the topic sentence in each paragraph. • Look at the transition words in the beginning of sentences. **Author's Perspective** Remember your perspective guides your argument choices. 	1. Look at the evidence from both sides. 2. Choose a side you would rather defend. 3. Select three pieces of evidence from that side. 4. Write the reason why you feel this evidence supports your perspective. 5. Write an *I believe…because* sentence. **Elements of an Evidence-based Argument** 1. Introduction: • Topic Sentence, *hook, definition, ask a question, fact* • Bridge Sentence, *Some people think, Others think* • Claim Sentence 2. Claim: • *I believe… because….* 3. Evidence: • <u>Reasons of value</u>: *For example, Another reason, Additionally…* • <u>Positive/Negative Information:</u> A quote, a fact, or an example - *According to/believes, Furthermore/states, Finally/suggests that* • <u>Tie-In Sentence:</u> Explain how you convinced your reader 4. Counterclaim: • Identify the other side, offer a different solution • *While it might be true that/many, Even though/most* 5. Conclusion: • *Author's perspective sentence* • *A call to action, What do you want people to do*

Topic sentence, Some people think…Other people think…I believe that… because .. For example Another reason… Additionally, According to/believes, Furthermore/states, Finally/suggests that   Therefore, I conclude that

Step 6: Negotiate a Solution, Standardized Tests: Rigor or Ruin?
In this session, students will review the elements of a two-sided evidence-based argument through labeling both traditionally-printed and digital mentor texts. Each step in *read like a writer* will be explained again. The goal of this session is to model how to use the *read like a writer* strategy to help plan and write alternative perspective sentences. The instructor and student will work together to plan and write a counterclaim by selecting evidence from the opposite perspective and offering an alternative solution to support the student's perspective.

Essential Questions	
	What does the author do with their counterargument and that will help me be a better writer?

Analyze digital mentor text, traditionally-printed text	*Standardized Tests: Rigor or Ruin?*
Read like a reader	focusing on the comprehension of the author's message.
Read like a writer	identifying the perspective in alternative perspective sentences. identifying the claim, reasons, and examples in alternative perspective sentences. identifying the counterclaim and rebuttal in alternative perspective sentences.
Crafting elements of an evidence-based argument	What type of evidence is being used? What reasons does the author give? How does this evidence support the reasons? How does the author present the claim? How do the reasons support the claim? How does the introduction and conclusion work together to create an effective argument?
Affordance of mode (s)	Which modes create the best meaning for this argument? Are there other modes that might convey a clearer argument?
Coherence of meaning	How do the modess work together to convey the author's perspective? How do the modes work against conveying the author's perspective?

Gradual Release for Writing	
I DO	Model how to take evidence and write a counterclaim using the sentence frame: *While it might be true that.... many......*
WE DO	Provide several counterclaims and discuss how it supports the healthy or harmful claim. Select another pieces of evidence and write a counterclaim using the sentence frame. Write alternative perspective sentences supporting the claim that milk is harmful with the paragraph frame: *X is one of the most popular X in the United States. ... On one hand, some say ...... On the other hand, many feel.. I believe that ... because . Recent studies have shed new light on ... For instance, If this continues then... This is significant because...Another view is... in some cases... perhaps After looking closely at both sides of the issue, I believe it is best to.... because*
YOU DO	Independently write a counterclaim with the sentence frame.

Mastery	
Student will be able to	summarize the topic, stance, and point of view in the two-sided argument. identify the elements in alternative perspective sentences. describe their point of view, stance, and purpose for alternative perspective sentences. brainstorm elements for alternative perspective sentences. write alternative perspective sentences using the template.

Verbal Protocol for Traditionally-Printed and Digital Mentor Text

Step 6: Negotiate a Solution, Standardized Tests: Rigor or Ruin?

Check	Action	Before Writing

Activate Schema	Say	Let's review what we did yesterday. First we talked about the six elements of a two-sided evidence-based argument. Can you remember any of the six elements and what they do?
		1. Introduction:
		   • Topic Sentence
		   • Bridge Sentence, *Some people think, Others think*
		   • Claim Sentence
		2. Claim:
		   • *I believe… because….*
		3. Reasons:
		   • *For example, Another reason, Furthermore…*
		4. Evidence:
		   • A quote, a fact, or an example
		   • According to/believes, Furthermore/states, Finally/suggests
		5. Counterclaim:
		   • Identify the other side, offer an different solution
		   • *While it might be true that/many, Even though/most*
		6. Conclusion:
		   • *Author's perspective sentence*
		   • *A call to action, What do you want people to do*

	Ask	*Then we talked about why it is important to write a counterclaim. Do you remember why it is important to write a counterclaim?*
Background	Say	Yesterday we learned that a two-sided evidence-based argument has six different

Knowledge		elements that include: introduction, claim, reason, evidence, counterclaim, and a conclusion. We also practiced writing the counterclaim. **Today I want to go back to Reading like a Writer to help you create a two-sided evidence-based argument.** Remember the goal of an evidence-based argument is to convince me, or your reader, that you made the best choice.

Clarify Strategy	Say
	Point to the strategy sheet
		Today's strategy is called **Read like a Writer,** and this strategy has three steps**:**
		1. Skim through the text to notice the author's style.
		2. Do a close reading of the element you are writing.
		3. Ask yourself what you could use in your writing:
		  • Look at the way the introduction/conclusion.
		  • Look at the topic sentence in each paragraph.
		  • Look at the transition words in the beginning of sentences.

	Say	Sometimes an author has difficulty creating a counterclaim. One strategy author's use to help them when writing is to read what other people think about the issue. Do you remember when we talked about **Reading like a Writer** is when you are reading to notice the tricks the author used to help you write better. Today we are going to learn how to **Reading like a Writer** will help us write a two-sided evidence-based argument. Let's skim this evidence-based argument to identify the counterclaim. I will read it to you and then we will work together to see if we can **Read like a Writer**.
	Read like a Writer Say	**Standardized Tests: Rigor or Ruin?** (Skim the first sentence of each paragraph). Since we are working on our introduction, where do we want to read closely? That's right, you learned yesterday that the first paragraph is the introduction and it includes a hook to grab the reader's attention (topic sentence); a bridge sentence that acknowledges both sides of the issue; and a claim statement. What do you notice about this introduction? What tricks does the author use that you want to use in your writing? Watch how I take notes by writing down the words/phrases that I

	Ask	want to try. Now, I can try out those words/phrases in my introduction to see if they help me convey a strong evidence-based argument.
	Read like a writer	*Tell me how* **Reading like a Writer** *can give us tricks to use in our own writing?* Now we will work on the conclusion, where do we want to read closely? Correct, you learned yesterday that the last paragraph is the conclusion and includes the author's perspective sentence that summarizes the argument and a call to action sentence. Watch how I take notes by writing down the words/phrases that I want to
	Ask	try. Now, I can try out those words/phrases in my conclusion to see if they help me convey a strong evidence-based argument.
	Ask	*Tell me how the* **Reading like a Writer** *can give us tricks to use in our conclusion*? *Do you have any questions about* **Reading like a Writer***?*
		During Writing
Demonstrate Strategy	Say	Now it's time for us to practice using this strategy by writing our own two-sided evidence-based argument about this topic. I will go first, then we will try it together, and then you will try it by yourself. I am going to use this paragraph frame to make sure my ideas are connected:
I DO	Say	Let's start by Examining the Evidence and then Reading like a Writer to help us with our counterclaim.
WE DO	Say	This time I want you to tell me what you are thinking as I writing an evidence-based argument for the opposite side using the paragraph frame: *While it might be true that …. I argue…I believe that… because .. According to__ believes ___, Furthermore __ states___, Finally, ____suggests that _____Therefore, I conclude that*
YOU DO	Say	Now I want you to try it one more time independently. Tell me the step you are

		completing and what you are thinking.
		After Writing
Evaluate Learning	Say	Tell me what you learned today. Can you tell me the parts of a two-sided evidence-based argument? Can you tell me why **Reading like a Writer** helps you convey a strong counterclaim? How did the mentor texts help you learn about writing an evidence-based argument? Thank you for spending some time with me. Here is a paper for your parents so they know what we worked on today.

Parent Letter: During intervention time today, your child worked with me. We reviewed the six elements of a two-sided evidence-based argument and how to **create a counterclaim**. We talked about the importance of **Reading like a Writer** when writing a two-sided evidence-based argument. Thank you for letting me work with your child. If you have any questions, please feel free to email me at, jbwise@udel.edu

Standardized Tests: Rigor or Ruin?

Yearly standardized tests are a springtime tradition for many students across the United States. Many say that standardized tests are essential for measuring educational progress. Critics of standardized tests say that standardized tests are changing education for the worse. What do you think? Are standardized tests raising rigor, or ruining education?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Rigor

1. Tests can help students to see what they have learned and what they still need to work on (Gavin T.L. Brown and John Hattie, "The benefits of regular standardized testing")
2. When tests are well-written, they can give teachers useful information about what to teach students (Gavin T.L. Brown and John Hattie, "The benefits of regular standardized testing")
3. Tests can motivate students and teachers (Bangor Daily News)
4. Standardized tests can be given by computer, and are easy to grade (Seattle Post-Intelligencer)
5. Parents can appreciate having information about their children's strengths and weaknesses (Seattle Post-Intelligencer)
6. With standardized tests, experts can compare how students do in different states and across the country (Digest of Gifted Research)
7. A process called the "testing effect" shows that when students have to remember a piece of information for a test, it is as if they have relearned the information, and can remember it for longer (Time Magazine)

Ruin

1. Pressure to increase test scores in math and reading may cause schools to take away from arts classes, recess, and physical education (Bright Hub Education)
2. The process of standardized testing can be very stressful for students and teachers (Bright Hub Education)
3. Without enough questions, many tests can't accurately measure a student's performance in a subject area (Educational Leadership)
4. The companies that create standardized tests are all for-profit businesses, companies that are trying to make as much money as they can (Educational Leadership)
5. Non-academic factors can impact scores--for example, a student who is tired or hungry may not perform as well (study.com)
6. Many standardized tests do not include open-ended questions, and only measure memorization of facts (education.com)
7. In many areas, students from lower income communities do poorly on standardized tests, while students from higher income communities do better. (David Miller Sadker PhD)

Multimodal Analysis Standardized Tests: Rigor or Ruin?

https://www.youtube.com/watch?v=hl8wFzwCsZ0&list=PL-3DMKmPtUUFn2AUwdx2BQ8UuxrML6gBS

By Dan Rather Reports (4:17 in length)

What did you notice?	What evidence is the author using to convey their argument?	What reasons explain the evidence?

What is the author claiming?

Deconstruction of Standardized Tests: Rigor or Ruin?

https://www.youtube.com/watch?v=hl8wFzwCsZ0&list=PL-3DMKmPtUUFn2AUwdx2BQ8UuxrML6gBS

By Dan Rather Reports (4:17 in length)

Visual Mode					

Deconstruction of Standardized Tests: Rigor or Ruin?
https://www.youtube.com/watch?v=hl8wFzwCsZ0&list=PL-3DMKmPtUUFn2AUwdx2BQ8UuxrML6gBS
By Dan Rather Reports (4:17 in length)

Oral Mode
Garfield is home to one of the most recognized high school jazz bands in the country. It's also been voted one of the best public schools for academics by U.S. News and World Report. But last month, teachers and students here began singing a different tune. Garfield High has suddenly become the center of the revolt against standardized testing. We take scholarship very seriously here and we also take the arts and critical thinking and developing the whole child very seriously here. They also take testing very seriously here too. Besides regular classroom tests, there are the multitude of mandated achievement tests, and there is the MAP test. MAP stands for Measures of Academic Progress. This is what the test looks like. The Northwest Evaluation Association, the company that makes the exam sent us a demonstration video. Students take the test on a computer and it's all multiple choice. It is given in schools across the country and it's become a widely used standardized test for, supposedly, measuring academic achievement. Given to millions of students every year. But now the faculty of Garfield High has banded together to say that the MAP test is doing more harm than good. The MAP test is a deeply flawed exam because, number one, it's not aligned to our curriculum. Teachers in ninth grade algebra tell me they see questions on the test for geometry, which would be like a French teacher giving a test and there are Spanish questions on it. The teachers then decided to take an unprecedented step, boycotting the exam. Jessie Hegelian became one of the vocal leaders. "We are being given this MAP test and they are using this and telling us this is a way to chart a course for the Seattle Public Schools. But I will tell you the designation that we end up using this MAP. We end up at the designation of inequality. We end up at the designation of unfairness." The MAP test boycott at one school in Seattle, suddenly spread to several schools across the city. And then leading educators at Washington D.C. jumped on the bandwagon. The National Education Association voiced support for the Garfield teachers as well as the largest teacher's union, the American Federation of Teachers. Meanwhile, the inbox at Garfield High is overflowing.

Deconstruction of Standardized Tests: Rigor or Ruin?
https://www.youtube.com/watch?v=hl8wFzwCsZ0&list=PL-3DMKmPtUUFn2AUwdx2BQ8UuxrML6gBS
By Dan Rather Reports (4:17 in length)

Written Mode			
Home to the bulldogs	What is the total value of 7 quarters, 7 dimes, & 7 nickels?	Plants usually take in minerals from soil. How will this plant most likely get the minerals	Students are NOT test scores! Scrap the MAP! Teachers are NOT test scores!
MAP	Scrap the MAP $	NEA President supports Seattle educators who refuse to give flawed standardized test.	AFT Stands with Garfield High School Teachers
Multiple signs	My teacher is my compass…I don't need the MAP!	handwritten	

Audio Mode				
jazz music in background	Teacher giving direction in background	Automated voice, computer	Teacher talking	cheering
Teacher giving direction in background	Teacher giving direction in background	Teacher giving direction in background	Camera clicks, loud talking	Teacher talking
Chanting "Stop the MAP," clapping				

Standardized Tests: Rigor or Ruin?

Standardized tests have been a part of American education since the mid-1800s. Their use skyrocketed after 2002's No Child Left Behind Act (NCLB) mandated annual testing in all 50 states. US students slipped from 18th in the world in math in 2000 to 31st place in 2009, with a similar decline in science and no change in reading. Failures in the education system have been blamed on rising poverty levels, teacher quality, tenure policies, and increasingly on the pervasive use of standardized tests. Proponents argue that standardized tests are a fair and objective measure of student ability, that they ensure teachers and schools are accountable to taxpayers, and that the most relevant constituents – parents and students – approve of testing. Opponents say the tests are neither fair nor objective, that their use promotes a narrow curriculum and drill-like "teaching to the test," and that excessive testing undermines America's ability to produce innovators and critical thinkers.

Standardized testing has not improved student achievement. After No Child Left Behind (NCLB) passed in 2002, the US slipped from 18th in the world in math on the Programme for International Student Assessment (PISA) to 31st place in 2009, with a similar drop in science and no change in reading. A May 26, 2011, National Research Council report found no evidence test-based incentive programs are working: "Despite using them for several decades, policymakers and educators do not yet know how to use test-based incentives to consistently generate positive effects on achievement and to improve education. **Standardized testing causes severe stress in younger students.** According to education researcher Gregory J. Cizek, anecdotes abound "illustrating how testing... produces gripping anxiety in even the brightest students, and makes young children vomit or cry, or both." On Mar. 14, 2002, the Sacramento Bee reported that "test-related jitters, especially among young students, are so common that the Stanford-9 exam comes with instructions on what to do with a test booklet in case a student vomits on it."

Standardized tests are reliable and objective measures of student achievement. Without them, policy makers would have to rely on tests scored by individual schools and teachers who have a vested interest in producing favorable results. Multiple-choice tests, in particular, are graded by machine and therefore are not subject to human subjectivity or bias. **Stricter standards and increased testing are better preparing school students for college.** In Jan. 1998, Public Agenda found that 66% of college professors said "elementary and high schools expect students to learn too little." By Mar. 2002, after a surge in testing and the passing of NCLB, that figure dropped to 47% "in direct support of higher expectations, strengthened standards and better tests."

Verbal Protocol for Traditionally-Printed and Digital Mentor Text

Step 7: Practice Writing an Evidence-based Argument without Scaffolds, Cats: Indoor or Outdoor?

In this session, students are asked to write an evidence-based argument independently. The goal of this session is to allow students to apply the strategies they learned to help them: 1) identify the two different perspective on a controversial issue; 2) examine the evidence; 3) use a mentor text to support their writing decisions; and 4) include all six elements in a two-sided evidence-based argument. The prompt provides a rationale for the students to develop evidence-based so they can engage in a critical dialogue, ponder evidence, broaden perspectives, and make an informed decision about standardized tests. Are standardized tests raising rigor, or ruining education?

Analyze digital mentor text, traditionally-printed text	What is my perspective on standardized tests?
Mastery	
Student will be able to	summarize the perspective in the two-sided argument.
	identify the elements in alternative perspective sentences.
	describe their perspective for alternative perspective sentences.
	brainstorm elements for alternative perspective sentences.
	write alternative perspective sentences independently.

Step 7: Practice Writing an Evidence-based Argument without Scaffolds, Cats: Indoor or Outdoor?

Check	Action	Before Writing
Activate Schema	Say	Today I want you to write a two-sided evidence-based argumentative essay about standardized tests. Are they helpful or harmful to animals? You will get a chance to watch a video and read one passage. Each mentor text will give you information about the issue. Remember the process and the strategies we discussed over these last few days. First you will analyze two mentor texts written by authors with different viewpoints. Next, you will examine the evidence and take a stance, or position, on the issue. Finally, you will write a two-sided evidence-based argument defending your perspective.

Parent Letter: During intervention time today, your child worked with me. Your child wrote a two-sided evidence-based argument about their perspective on standardized tests. I also conducted a semi-structured interview to learn how mentor texts help fifth-graders understand evidence-based arguments. Thank you for letting me work with your child. If you have any questions, please feel free to email me at, jbwise@udel.edu

Cats: Indoor or Outdoor?

Cats have lived with humans for thousands of years. People have become used to sharing their homes with cats and opening the doors to the outside when cats want to explore the yard and garden. Some claim that indoor cats suffer from behavioral problems and weight gain. Others argue cats that roam outside can be happier, more fit as they perform the necessary task of controlling rats and mice.

What do you think? Should cat owners keep their pets indoor or allow them to go outdoor and explore?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Indoor
- 74 million years cats have lived indoors with humans
- When cats go outside they can get diseases
- In a study, cats kill 500 million songbirds each year
- A study by the University of Nebraska shows cats are responsible for the extinction of 33 bird species
- Cats can kill 6.9 billion small mammals each year
- There are many dangers outside like breathing infections and parasites like fleas, tick, and worms
- An outdoor cat darting across the street is a perfect target for a moving vehicle and cats that are hit by cars rarely survive
- According to the Journal of Wildlife Management, cats make up 42% of a coyotes' diet
- A study of 10 indoor cats found cats walk around more than farm cats
- If your cat gets into a territorial fight with another cat and is bitten, she could develop an infection that could send her to the veterinary emergency clinic

Outdoor
- Cats are natural predators
- Cats survival instants to kill animals control the rat and mice population
- Killing mice and rats keep diseases away from houses and playgrounds without using dangerous chemicals
- Indoor cats misbehave because they are bored
- Indoor cats become overweight from a lack of exercise
- Keeping a cat indoors at all times means they can become very dependent on its owners for stimulation, which can result in the cat being stressed during times of the owner's absence
- The outdoors allow for a much better environment for your cat to get adequate exercise.
- Indoor cats are not allowed to express their natural behaviors and suffer behavior problem

Read like a Writer	**Examine the Evidence**

Read like a Writer

1. Skim through the text to notice the author's style.
2. Do a close reading of the element you are writing.
3. Ask yourself what you could use in your writing:
   - Look at the way the introduction/conclusion.
   - Look at the topic sentence in each paragraph.
   - Look at the transition words in the beginning of sentences.

Author's Perspective

Remember your perspective guides your argument choices.

Topic:
What is the author talking about?

Stance:
What does the author believe?

Purpose
Why is the author talking about it?

Examine the Evidence

6. Look at the evidence from both sides.
7. Choose a side you would rather defend.
8. Select three pieces of evidence from that side.
9. Write the reason why you feel this evidence supports your perspective.
10. Write an *I believe…because* sentence.

Elements of an Evidence-based Argument

6. Introduction:
   - Topic Sentence, *hook, definition, ask a question, fact*
   - Bridge Sentence, *Some people think, Others think*
   - Claim Sentence
7. Claim:
   - *I believe… because….*
8. Evidence:
   - <u>Reasons of value</u>: *For example, Another reason, Additionally…*
   - <u>Positive/Negative Information</u>: A quote, a fact, or an example - *According to/believes, Furthermore/states, Finally/suggests that*
   - <u>Tie-In Sentence:</u> Explain how you convinced your reader
9. Counterclaim:
   - Identify the other side, offer a different solution
   - *While it might be true that/many, Even though/most*
10. Conclusion:
    - *Author's perspective sentence*
    - *A call to action, What do you want people to do*

Topic sentence, Some people think…Other people think…I believe that… because .. For example Another reason… Additionally, According to/believes, Furthermore/states, Finally/suggests that   Therefore, I conclude that

Examine the Evidence

Introduction		
Claim		
Reason		
Evidence		
Conclusion		
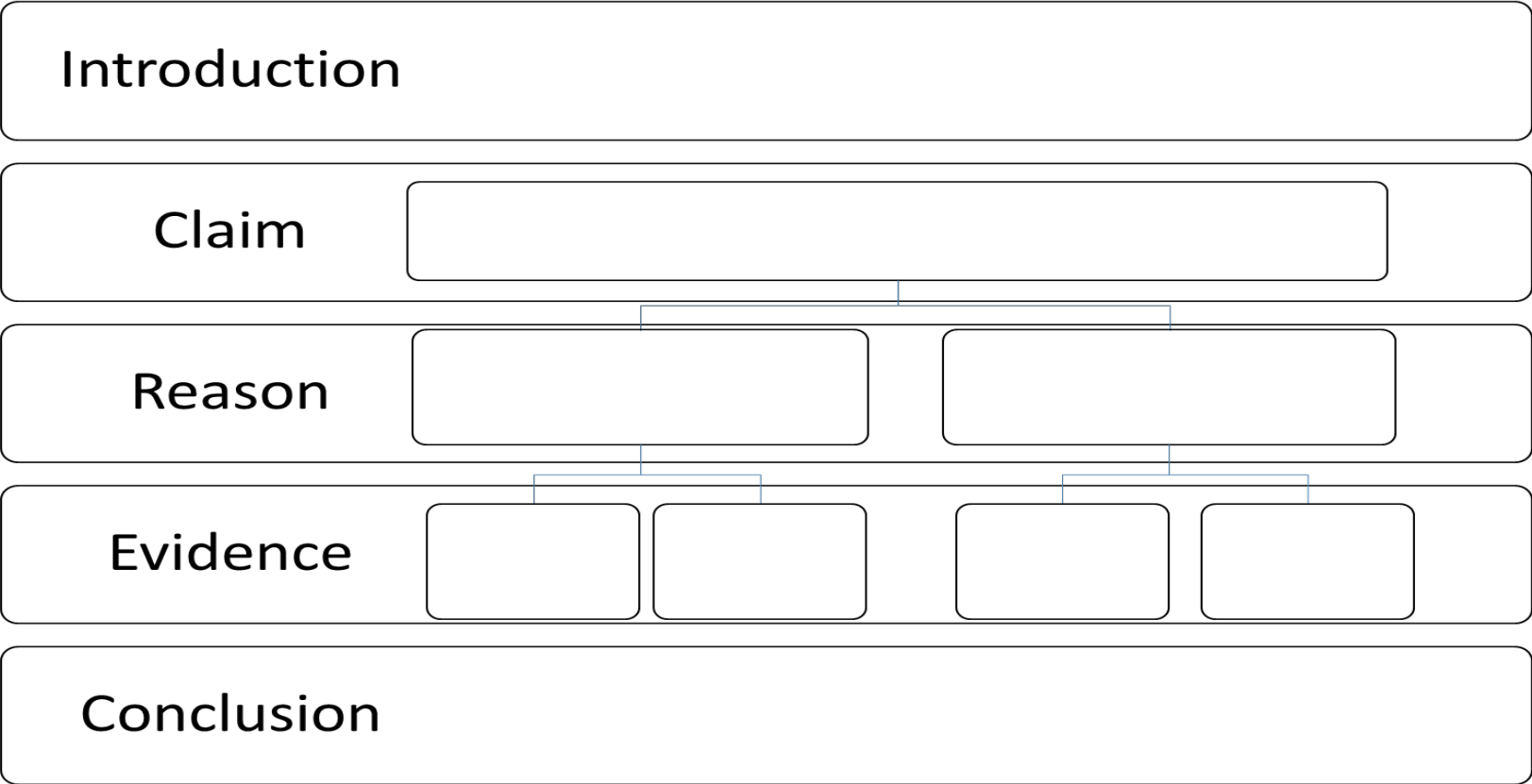
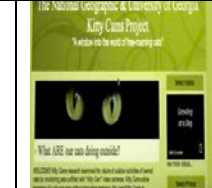# Multimodal Analysis for Let Cats Outdoors

By: Slate News (1:08 length)

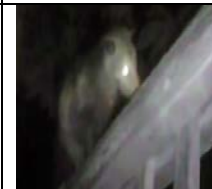| What did you notice?	What evidence is the author using to convey their argument?	What reasons explain the evidence?

404

What is the author claiming?

Deconstruction for Let Cats Outdoors

Visual Mode					

Oral Mode					
Curiosity doesn't always kill the cat. Sometimes it makes the cat a ruthless killer. In a study of 60 cats fitted with cameras for 7 to 10 days, a University of Georgia team has found nearly 30% of them killed prey. Ending the lives of two animals per week on average. Their prey, unlucky lizards, snakes, and frogs accounted for 41% but the cats only ate 30% of what they killed. With the help of National Geographic Society's critter cam, the study also found the felines to be pretty adventurous. Nearly half crossing roadways and ¼ eating and drinking things they found. With 74 million cats in America, the potential amount of cat carnage is much higher than was earlier thought, according to the research. Beyond moments of terror, the video and photo evidence proves an ancient lesson some of our cities and neighborhoods could use remembering: more cats, fewer rats.					

Deconstruction for Let Cats Outdoors

https://www.youtube.com/watch?v=cUYXh2aP2ng&feature=youtu.be

By: Slate News (1:08 length)

Written Mode			
Killer cat	search	The National Geographic & University of Georgia Kitty Cams Project	Slate News Science

Audio Mode			
Typing	Electronic background music	Transition slide swish	Bells, chimes

Keep Cats Indoors

Cats have lived with humans for thousands of years. People have become used to sharing their homes with cats and opening the doors to the outside when cats want to explore the yard and garden. After all, cats need to get outside, right? Some claim that indoor cats suffer from behavioral problems and weight gain. However, careful owners can easily overcome these issues by playing with their cats and ensuring indoor exercise. New research has shown that cats do not need to get outdoors. Instead, keeping cats indoors is better for both wildlife and for cats themselves.

Domestic cats were first brought to North America with early settlers. These cats were thought to control pests like mice and rats. Unfortunately, cats can't distinguish between pest animals like house mice and important native species. Data from a study conducted by the University of Georgia suggests that cats kill 500 million songbirds each year. In fact, research from the University of Nebraska shows that cats have been responsible for the extinction of 33 bird species. Another published study estimates that cats kill between 6.9 billion and 20 billion small mammals each year. Many owners have no idea that their cats are harming so many small creatures. In many situations, cats do not even eat the animals they kill. Allowing cats to roam outdoors can cause great damage to the native ecosystem.

Not only do outdoor cats harm wildlife, but they also are at risk themselves. When cats go outdoors, they face many dangers. Outdoor cats are at risk for many diseases, including feline leukemia, feline distemper, and upper respiratory infections. In addition, there are many parasites that can affect outdoor cats, like fleas, ticks, and worms. Fast-moving cars and trucks are also dangerous for cats. No one knows for sure, but some estimate that cars kill millions of cats each year. In some places, other predators can also kill cats that roam outdoors. According to the Journal of Wildlife Management, the coyotes around Tucson, Arizona eat many cats, with the felines making up about 42% of the coyotes' diet. No one wants to imagine their pet as a meal for a coyote. Keeping a cat indoors keeps that cat safe from harm.

Our house cats may seem like fierce, independent predators that want to roam freely outdoors. However, allowing cats to go outdoors causes problems for both wildlife and cats. Cats kill songbirds and other native species, and face many dangers outside. Keeping cats indoors helps to keep many animals safe!

Appendix E

WRITING PROMPTS FOR BASELINE, POST-INSTRUCTION, AND MAINTENANCE PROBES

Baseline Probe A   **Books: Textbook or Tablet?**
As students head back to school, many are given thick, heavy textbooks for each class. In some places, however, Tablets are replacing textbooks. One single Tablet can store the information from many textbooks. Some teachers and students love the new Tablets, while others prefer traditional textbooks. What do you think? When it's time to study, should students learn from textbooks or Tablets?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Textbooks

1. Readers seem to have trouble navigating texts on a Tablet, especially longer texts.
2. When readers read from a Tablet, they may not understand what they read as well as with a textbook.
3. Students who read a story on a Kindle showed less understanding of the plot than students who read the same story in a book.
4. In a 2014 survey of college students, 57% preferred print books to digital ones
5. Using Tablets too much may cause headaches and blurry vision.
6. Students can mark right on the pages of a textbook, using highlighting or sticky notes to show important information.

Tablet

1. Tablets are often much cheaper than traditional ones.
2. With Tablets, students can watch interactive animations as they read, helping them to understand the story better.
3. Tablets are much lighter than traditional textbooks, and can be updated with new information.
4. A set of textbooks that would weigh 30 pounds can be loaded on one Tablet.
5. Students are often more engaged in digital reading because many students use digital devices at home.
6. Interactive textbooks include annotation tools that allow students to make notes, mark text, and take notes.
7. It's easy to search for information in a Tablet by using a "Search" feature

Baseline Probe B   **School Uniforms: Brilliant or Boring?**

Even though students in England have been wearing school uniforms for centuries, most American students attending public schools have been able to decide what they want to wear. While it may be true that uniforms help students focus on learning instead of their appearance, some claim uniforms hurt students' self-image.

What do you think? Are school uniforms brilliant or boring?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Brilliant

1. Uniforms lower distractions; students can focus on learning what the teacher is teaching and not on appearance.
2. Uniforms can save money for parents.
3. Children do not have to spend a lot of time deciding on what to wear to school each morning.
4. Uniforms can build school pride and team spirit.
5. Uniforms can build discipline and set a proper work attitude.
6. Respect will be built on how students get along with one another rather than on what another student is wearing.
7. Less fortunate students will not feel inferior or less-than because of what they are wearing or not wearing.
8. Gang threats and baggy clothing can become less of an issue.

Boring

1. Uniforms lower a student's personality development.
2. Uniforms are boring and can distract from a student's freedom of expression.
3. The upfront cost of uniforms will be expensive to families.
4. Uniforms reduce the students' responsibility in making mature choices about what to wear.
5. Students will no longer feel unique and special.
6. Uniforms will cost more because students will need different clothes to wear when not in school.
7. Uniforms will interfere with clothing worn as part of one's religion.

Baseline Probe C   **Trampolines: Dangerous or Safe?**

Trampolines are common sights in backyards across the United States. But are these backyard toys dangerous or safe?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Dangerous

1. In 2009, more than 100,000 trampoline-related injuries occurred in children.
2. Injuries from trampolines include broken arms and legs, concussions, and abdominal injuries
3. According to the American Academy of Pediatrics, parents should never buy a trampoline for their children or allow children to jump on one at other homes.
4. Many insurance companies do not allow homeowners to have trampolines. If injuries occur, homeowners may have to pay costs themselves.
5. Dr. Michele LeBrotz, states that injuries can occur even when safety rules are followed
6. A study showed nearly 300,000 broken bones between 2002 and 2011.
7. Smaller kids are 14 times more likely to be injured than older kids.

Safe

1. Trampolines provide children with active play
2. Trampoline games like basketball help to get lots of kids involved safely
3. Jumping on a trampoline is excellent exercise
4. Trampoline training is important for extreme sports, with skateboarders and snowboarders safely practicing somersaults and turns
5. Jumping on a trampoline provides you with cardiovascular benefits
6. Fewer than 1 in 4 children gets 30 minutes or more of exercise each day
7. Risk of injury is less when only one child bounces at a time. Seventy-five percent of injuries happen when more than one child is bouncing at once.
8. The Consumer Product Safety Commission has issued guidelines about safer use of trampolines, including allowing only one jumper at a time, not allowing somersaults, and keeping trampolines clear of trees and other obstacle.

Baseline Probe D   **School Sports: Excellent or Worthless?**

Many students enjoy spending time after school playing on school sports teams. Whether they are tossing the football or kicking a soccer ball, these students say that they are learning important life lessons. However, in an age of budget cuts and money shortfalls, many argue that school sports are wasteful and take funds away from other important programs. What do you think? Are school sports excellent or worthless?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Excellent

1. Students who play high school sports tend to get better jobs with better pay as adults.
2. Increases in girls playing sports seem to lead to increases in girls attending college.
3. Regular physical activity, like what students experience in school sports, helps students to maintain healthy bones and muscles and control weight.
4. High school athletes are more likely to attend college than non-athletes.
5. More than 7.8 million high school students played sports during the 2013-2014 school year.
6. Students who play sports regularly are less likely to use drugs.
7. High schoolers who play sports are likely to have higher grades and better attendance than those who do not play sports.

Worthless

1. In the United States, more taxpayer money is spent on high-school athletes than on high-school math students.
2. Many students still have to pay additional fees of $35-$300 to participate in school sports, causing burdens for families.
3. The United States ranks 31st on a test of critical thinking in math, lower than many countries that do not have high school sports programs.
4. By suspending the sports program for one year, a superintendent in rural Texas was able to save $150,000.
5. High school sports can cause injuries, with more than two million concussions and 30,000 hospitalizations reported from high school sports in one year.

Baseline Probe E   **Parents Helping with Homework: Right or Wrong**

Students do homework to practice what they learned at school. Some people think kids get too much homework. Others think homework will make students smarter. While it may be true that homework can be stressful, some claim help from parents causes more harm.

What do you think? When it's time to do homework, are parents making the right or wrong decision to help students?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Right

1. Studies show many students are stressed over school and feel pressure to do well.
2. According to Judy Dodge, parent involvement can benefit students by finding a quiet place to complete homework
3. Parents can help students study by quizzing students on new vocabulary or topics for a test
4. Students are too busy to do their homework on their own
5. Homework is more demanding in elementary school and teachers want parents to help
6. Helping students with homework sets high expectations and shows the importance of education

Wrong

1. Many experts say parents end up doing the homework instead of pointing out mistakes
2. It is important for students to learn how to balance after school activities with the demands of schoolwork
3. One study found that students who got help from parents scored worse on standardized tests than students who completed homework on their own
4. Homework develops independence and confidence if the student completes the work alone
5. According to a study, students' grade did not improve with parent help
6. 71% of parents report that they do not spend quality time with their children and instead work on homework
7. Parents may confuse students by explaining the homework differently than was taught in school

Post-Instruction Probe F   **Sugary Drinks: Avoid or Enjoy?**

Humans have been putting sugar in their drinks for centuries. Some people think fruit juice and soda taste great as a drink and should be enjoyed anytime. Other people feel fruit juice and soda cause many health problems.

What do you think? When it's time to get a drink, should students avoid or enjoy sugary drinks?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Avoid

1. The body absorbs the sugar in liquids more quickly than sugar in solid food
2. Sugar is as addictive as drugs
3. According to brain scans, eating sugar affects the same part of the brain as addictive drugs
4. Soda contains 8 teaspoons of sugar
5. According to the American Hear Association, children should only have 4 – 9 teaspoons a day
6. A study found the average American eats more than 22 teaspoons of sugar a day, that's 77 pounds a year
7. Eating too much sugar can lead to obesity and put you at risk for diabetes
8. One soda a day can increase the risk of a heart attack by 30%

Enjoy

1. Soda is the second most popular drink in the United States
2. Soda is cheaper than fruit juice and milk
3. In a study on children that lived in Britain found that soda alone did not affect their weight
4. One apple contains 21 grams of sugar, more than half the sugar in a can of soda
5. Soda is not the only cause of obesity
6. According to the American Beverage Association, only 4% of calories in the average American diet comes from soda
7. Poor diet and lack of exercise cause are the major factors in heart attacks

Post-Instruction Probe G **Video Games: Awesome or Awful?**

Video games have been used as a toy for entertainment for years and enjoyed by children and adults. Some say video games make students aggressive and should be banned. Others say video games help students make quicker decisions and improve their focus.

What do you think? Are video games developing students' skills that are awesome or awful?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Awesome

1. Shooter games can improve decision-making and problem-solving skills.
2. Video games create a common ground for young kids to make friends; allow kids to hang out; and provide structured time with friends.
3. Research showed that playing realistic sports video games lead to an increased time spent playing sports and exercising in real life.
4. Video games are a safe place to express competition and can give children who aren't good at sports a chance to excel.
5. Roughly one-third of the children play video games because they liked to teach others how to play which builds communication skills and patience.
6. Video games can help children's brain development by anticipating consequences and express their personalities.
7. In a study by Ohio State University found video games are a wonderful teaching tool for children to learn how to create their own video game codes.

Awful

1. Playing video games is a socially isolating activity.
2. In a study of 5,000 teenagers who played video games discovered they had more aggressive thoughts, feelings, and behaviors.
3. Time spent playing video games is time not spent doing such activities as reading a book, playing outside or engaging with friends.
4. Playing video games for long amounts of time can lead to blurry vision and headaches.
5. One study found children who play video games tend to be obese or weigh more because play reduces time for physical activity.
6. Another study found those who play violent games become desensitized to violence in the real world.
7. Research suggests children perform poorly in school if they play video games for a long period of time.

Post-Instruction Probe H   **School Start Time: Early or Late?**

Many kids enjoy sleeping in on the weekend. Some argue that kids arrive to school tired so schools should start later. Others say kids just need to go to bed earlier.

What do you think? Should schools start earlier than students want to wake up or later so they can sleep in?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Early

1. A 2013 study suggests children's healthy sleep patterns are different for each student.
2. Students would have fewer opportunities to participate in sports, jobs, or care for younger siblings.
3. Starting the day early leaves more time for after school activities.
4. Schools save $680,000 in transportation costs because there is less traffic early in the morning resulting in shorter bus rides.
5. One study found schools would have to spend $4.9 million dollars to buy more buses.
6. Parents do not have to drop their children off at daycare before work because they can get on the bus from home.
7. When schools start later, students do not arrive home until 5:00 p.m., which leaves little time to do other activities other than homework.
8. Students may stay up even later if they don't have to wake up early for school.

Late

1. Most students need 8 ½ - 9 ½ hours of sleep each night.
2. Research found students get their best sleep between 11:00 p.m. and 8:00 a.m.
3. A study suggests the majority of schools start too early, leaving students tired and grumpy.
4. 75% of schools start before the recommended time of 8:30 a.m. making it difficult for students to get 8 ½ hours of sleep.
5. Nearly 70 percent of teens are not getting enough sleep, according to a report by the Centers for Disease Control and Prevention.
6. According to the American Academy of Pediatrics, students perform better when they get up later than falling asleep earlier.
7. Lack of sleep is associated with obesity and headaches.
8. When a high school in Wyoming shifted its start time to 8:55 a.m., the number of car crashes involving teenage drivers dropped by 70%
9. A study found significant increased math and reading test scores when the start time is pushed back 30 minutes later

Maintenance Probe I **Studying to Music: Relaxing or Distracting?**

Today, music is portable and easy to access. Students listen to music as they ride the bus, during lunch, and even when they study. Although some people believe music can help you study, it can be argued that music causes your attention to drift to the music rather than help you concentrate on your material.

What do you think? Can music help students relax when they study or does music distract their mind from learning?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Relaxing

1. Listening to classical music has been shown to keep the brain stimulated and allow students to study longer.
2. Music can improve motivation for students who are struggling to complete their homework.
3. Some students find music helps keep them focused while studying.
4. Researchers report students who are used to having background music while studying do better with the music than in silence.
5. The findings of a 2010 study of 600 students suggest music helped most with concentration, easing stress, and reducing boredom.
6. According to the U.S. Department of Education, quiet background music can help some children focus.

Distracting

1. Listening to music with lyrics can make it difficult for the brain to comprehend tasks like reading or writing.
2. According to the University of Phoenix, students struggle to remember the information they studied while listening to music with lyrics.
3. Research suggests music and studying force the brain to do two things at once, making it difficult to focus.
4. The findings of a 2010 study of 600 students suggest music interferes with focus when memorizing information for tests.
5. A recent study at the University of Wales found test results were higher when taken in a quiet environment.
6. Studies have shown listening to music BEFORE studying improves attention, memory, and math ability.

Maintenance Probe J   **Chocolate: Healthy or Harmful?**

Chocolate can be found in many candy bars, desserts, and drinks, but is all this chocolate good for you? Although some people believe chocolate keeps your heart healthy, others argue chocolate can cause headaches and weight gain.

What do you think? Can eating chocolate be healthy or harmful to your body?

- Read the evidence for both sides.
- Form your own position.
- Write an essay to state your position.

Healthy

1. Chocolate has been found to make you feel good.
2. Eating small amounts over time can reduce your anxiety and stress levels.
3. Chocolate contains 10 times less caffeine than coffee, tea or soda.
4. A 2008 study found eating one Hershey's dark chocolate bar per week reduced the risk of heart disease.
5. Drinking hot cocoa while studying math helps with mental math.
6. A chemical in chocolate triggers the brain to stop coughing.
7. Harvard researchers found that eating chocolate actually adds two years to your life.
8. A study found that women who ate one or two ounces of chocolate a week had a 32 percent lower risk of heart failure than women who ate no chocolate.
9. Sugar is a carbohydrate, which the body needs for quick energy and proper brain function.

Harmful

1. Scientists report that some chocolate can contain high levels of lead and cadmium, two naturally occurring metals that can cause health problems.
2. The lead in chocolate can trigger headaches in migraine sufferers.
3. Sweetened chocolate contains a lot of sugar and dairy. Sugar adds calories without providing any essential nutrients.
4. Chocolate is high in calories. Just one ounce delivers 160 calories.
5. Chocolate also contains a lot of fat. A 100-gram serving of dark chocolate has 42.6 grams of fat, which is 66 percent of the daily value for total fat.
6. A study found chocolate contains caffeine, which can cause acid reflux.
7. Chocolate may contribute to lower bone density.
8. Chocolate has the potential to trigger tooth decay

Appendix F

INSTRUCTIONAL CHECK LIST FOR TREATMENT VALIDITY

_____ 1. **<u>Activate Schema</u>** by reviewing learning goals from the previous session and engaging student in a hands-on activity.

- What do you remember from the last session?
- How does the author use the strategy to write an evidence-based argument?

_____ 2. **<u>Build Background Knowledge</u>** by connecting the previous lesson to the new content.

- The goal of an evidence based argument is to convince the reader.
- The best way to do this is to use…

_____3. **<u>Clarify Writing Strategy</u>** by naming the strategy and deconstructing the mentor texts to notice where the author applied the strategy.

- Name and define strategy using the graphic organizer
- Deconstruct traditionally-printed mentor text
- Deconstruct digital mentor text

_____4. **<u>Demonstrate Strategy</u>** by using a think aloud to model the intentional decision process.

- I do: Model the thinking required to apply the strategy
- We do: Ask student to practice the strategy and use guiding questions to scaffold student's thinking
- You do: Ask the student to indpendently apply the strategy while sharing their thinking.

_____5. **<u>Evaluate Learning</u>** by asking student to reflect on what they learned.

- Tell me what you learned today.
- How idd the mentor texts help you learn about writing an evidence-based argument?
- Hand student parent letter

Appendix G

RETROSPECTIVE SEMI-STRUCTURED INTERVIEW PROTOCOL

Say: Thank you for working with me today. As you know, I'm studying how mentor texts help fifth-grade students develop an understanding of evidence-based arguments. Today you read two mentor texts. You also composed an evidenced-based argument. I'd like to talk to you about your writing experiences. I'm gong to ask you a few questions. Your answers will help me understand exactly what you were doing and thinking during the reading and writing task. This will give you an opportunity to explain in more detail what you were thinking and what you were doing as you wrote your essay. Remember, there are no right or wrong answers to these questions, but your answers will help me learn how fifth-grade students use mentor texts to help them write an evidence-based argument.

1. Writing Process
   a. Can you describe the process you used to write an evidence-based argument? For example, what was the first decision you made? Why?

2. Read like a Writer
   a. Can you describe how you use the mentor texts to guide your writing decisions?
   a. Which mentor text helped you write the evidence-based argument? Why?
   b. How did the traditionally-printed mentor text help you?
   c. How did the digital mentor text help you?
   d. Which type of mentor text would you use in the future? Why?

3. Writing Experience
   a. Is there anything you'd like to share with me about writing an evidence-based argument?
   a. Was there any part of the writing process that was easy for you? Why?

b. What difficulties did you have while crafting your evidence-based argument? Why
c. Which of the strategies (e.g., Target the Author's Perspective, Elements of an Argument, Examine the Evidence, Read like a Writer) did you notice you used today?
d. How would you compare learning from a mentor text to the way you learn in your writing class?
e. How interested were you in the task?
f. How interested were you in the topic?

Say: Thank you for working with me today.

Appendix H

PRAGMA-DIALECTICAL THEORY OF ARGUMENTATION

Term	Definition
Introduction	The introduction includes a hook, background about the issue, a summary of both sides of the issue and an explanation of why the topic needs to be considered.
Bridge sentence	A bridge sentence provides context about the controversial issue by acknowledging the relationship between two different sides of the issue.
Standpoint	The main point or position the writer is trying to get the audience to consider. The three types of standpoints include fact, judgment/value, and policy.
Level One Reason	The level one reason provides direct support for the standpoint by explaining why the standpoint is valid and should be accepted.
Level Two Reason	The level two reason is defined as the evidence (i.e., data, facts, or examples) used to explain or support the accuracy of the level one reason
Level Three Reason	The third level reasons identify values shared between the author and the reader by describing how the evidence supports the standpoint.
Alternative Perspective Sentence	The alternative perspective sentence recognizes a different point of view for which the writer disagrees and can be located anywhere in the essay, such as a bridge sentence in the introduction, a counterargument in the body, and a synthesis sentence in the conclusion.
Rebuttal	A rebuttal sentence is a potential objection, limitations, or exceptions to the alternative perspective and strengthens the writer's standpoint
Conclusion	The conclusion summarizes argument by restating the standpoint, summarizing reasons to support the standpoint, and stating a call to action.

Appendix I

PRIMARY TRAIT RATING RUBRIC FOR ESSAY QUALITY

Score	Definition
0 Response to topic	Essay responds to the topic in some way but does not provide a standpoint on the issue.
1 Undeveloped argument	Essay states a standpoint, but no reasons are given to support the standpoint, or the reasons given are unrelated to or inconsistent with the standpoint, or they are incoherent.
2 Minimally developed	Essay states a clear standpoint and gives one or two reasons to support the standpoint, but the reasons are not explained or supported in any coherent way. The reasons may be of limited plausibility, and inconsistencies may be present.
3 Somewhat developed	Between the standards for 2 and 4. Meets the criteria for the previous level but does not provide elaboration for each reason.
4 Partially developed	Essay states a standpoint and gives reason(s) to support the standpoint, plus some explanation or elaboration of the reasons. The reasons are generally plausible though not enough information is provided to convince a reader. There may be some inconsistencies, irrelevant information, or problems with organization and clarity.
5 Moderately developed	Between the standards for 4 and 6. Meets the criteria for the previous level but does not include either: an alternative standpoint, reasons against it, or free of inconsistencies.
6 Well developed	Essay states a clear standpoint and gives reasons to support the standpoint. The reasons are explained clearly and elaborated using information that could be convincing. Mentions alternative standpoint and give reasons against it. The essay is generally well organized and may include a concluding statement. The essay is free of inconsistencies and irrelevancies that would weaken the argument.
7 Sophisticated	Meets the criteria for previous level. In addition, the essay deals with the alternative standpoint either with refutation or alternative solutions. Overall, the argument is convincing.

UNIVERSITY OF DELAWARE

RESEARCH OFFICE

DATE: October 31, 2016

TO: Julie Wise
FROM: University of Delaware IRB

STUDY TITLE: [810834-2] Using Digital Mentor Texts to Teach Evidence-based Written
                    Arguments

SUBMISSION TYPE: Continuing Review/Progress Report

ACTION: Approved for Data Analysis Only
APPROVAL DATE: October 31, 2016
EXPIRATION DATE: November 1, 2017
REVIEW TYPE: Expedited Review

REVIEW CATEGORY: Expedited review category # (6,7)

Thank you for your submission of Continuing Review/Progress Report materials for this research study.
The University of Delaware IRB has APPROVED your submission. This approval is based on an
appropriate risk/benefit ratio and a study design wherein the risks have been minimized. All research
must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on the applicable federal regulation.

Please remember that informed consent is a process beginning with a description of the study and
insurance of participant understanding followed by a signed consent form. Informed consent must
continue throughout the study via a dialogue between the researcher and research participant. Federal
regulations require each participant receive a copy of the signed consent document.

Please note that any revision to previously approved materials must be approved by this office prior to
initiation. Please use the appropriate revision forms for this procedure.

All SERIOUS and UNEXPECTED adverse events must be reported to this office. Please use the
appropriate adverse event forms for this procedure. All sponsor reporting requirements should also be
followed.

Please report all NON-COMPLIANCE issues or COMPLAINTS regarding this study to this office.

Please note that all research records must be retained for a minimum of three years.