5-2014

Supporting Writing Skills in the Common Core State Standards for Students in Grades 3-5 with Executive Functioning and Learning Difficulties: A Teacher's Toolkit

Elizabeth Anne Conlon
Dominican University of California

https://doi.org/10.33015/dominican.edu/2014.edu.14

Survey: Let us know how this paper benefits you.

Supporting Writing Skills in the Common Core State Standards for Students in

Grades 3-5 with Executive Functioning and Learning Difficulties: A Teacher's Toolkit

Elizabeth A. Conlon

Submitted in Partial Fulfillment of the Requirements of the Degree

Masters of Science in Special Education

School of Education and Counseling Psychology

Dominican University of California

San Rafael, CA

May 2014

This Master's Degree Thesis, written under the direction of the candidate's thesis advisor, has been presented to and accepted by the Faculty of the School of Education and Counseling Psychology in partial fulfillment of the requirements for the degree of Master of Science in Education: Special Education. The content and research methodologies presented in this work represent the work of the candidate alone.

Elizabeth A. Conlon   5/13/2014

Candidate   Date

Rande Webster. Ed.D.   5/13/2014

Thesis Advisor   Date

Elizabeth Truesdell, Ph.D.   5/13/2014

M.S. degree Program Chair   Date

Acknowledgements

I am very grateful to those who have supported me in this project. I would especially like to thank Dr. Rande Webster, my faculty advisor, mentor, friend, and teacher for her constant guidance and faith. Thanks also are due to Dr. Billye Brown and Sharon Gordon, DUC Special Education faculty, for sharing their knowledge and providing so much support through my years at Dominican. In addition, I would like to acknowledge Dr. Nancy Haugen for her consistent, sunny encouragement and Dr. Shirley Clem for her faith in me as a special education teacher. Finally, my gratitude and love goes to Will, my partner, for his patience and to my children, Matthew, Emma, and Jane, for providing living examples of pursuing one's personal goals with persistence and passion.

Table of Contents

Abstract

Poor writers do not display the skills and strategies employed by skilled writers. The Common Core State Standards (CCSS) set forth an expectation that all children will become skilled writers; yet, for most students with executive functioning weakness and/or learning disabilities, writing is the most challenging academic task. For poor writers to begin to develop essential skills for college and career readiness and the willingness to write, teachers need to provide students with specialized materials and teach instructional strategies that students can utilize independently. The purpose of this thesis was to create a toolkit for grade 3-5 teachers containing a range of instructional tools and strategies that target the needs of struggling writers challenged to master the CCSS writing standards.

Introduction

Statement of the Problem

The Common Core State Standards (CCSS), an initiative led by the National Governors' Association, were developed in response to student mobility, global competition, a need for workers with skills that meet the demands of the modern job marketplace, and disparate standards across states. Released in 2010, the state-led effort by governors and state commissioners of education of 48 states, two territories, and the District of Columbia resulted in common standards in English Language Arts and Literacy in History/Social Studies, Science, & Technical Subjects and Mathematics for grades K – 12. Beginning in 2013-14, the CCSS are now being implemented in 46 of 50 states and some territories of the United States. The new standards were based on the highest state standards and expectations in high performing countries; no state was asked to lower their standards (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010).

The Common Core State Standards Initiative (CCSSI) comprises a new set of educational standards, representing a nationwide approach to articulating what students should learn in order to be successful in college and careers. These new standards, already in use in some states, are expected to be fully implemented in California in the 2014-15 school year, but teachers around the state are being trained in and expected to transition their teaching to the change during 2013-14. As yet, most school districts have not yet adopted new textbooks reflecting the CCSS (indeed, publishers are still developing them). Administrators and teachers are collectively working together to

construct new approaches before discarding current textbook adoptions and assessments, all of which are placing heavy demands on individual classroom teachers. At the same time, their students will be challenged to think and express themselves more deeply, with more clarity, and evaluate more complex materials in thoughtfully planned and polished projects.

The State of California has adopted the new standards, the first overhaul since adopting it's own statewide academic content standards in 1997. While the California Department of Education (CDE) states it has built a rigorous program since first moving to a statewide system, the CDE articulates that the new set of Common Core standards renews its vision for all students to become lifelong learners with skills and knowledge necessary to become ready to join the 21st Century global economy (CDE, 2013). The California system of instruction is meant to ensure equity for all students, with meaningful access to content through universal access and instructional resources, so that all students can meet their individual potential. California's Department of Education has identified an implementation plan and pathway for activities relating to implementation, although individual school districts will develop their own specific plans to meet their own needs.

The CCSS Reading and Literacy standards offer a more comprehensive approach to reading and writing skills, in contrast to California's earlier state content standards that articulated what students should know and be able to do in terms of more discrete learning objectives. The CCSS English Language Arts and Literacy standards emphasize reading and learning in content areas. Before the advent of Common Core, the reading of simple stories may have been overly emphasized (Duke, 2000). Literacy in a variety of

informational texts may have not been given the attention needed to support cognitive development and sustain interest in learning (Duke, 2000; Brozo & Simpson, 2007). Limited exposure in early grades to non-fiction reading can impact future performance on standardized tests and the ability to cope with subject area textbooks (Brozo, 2005). An important tenet in the structuring of the CCSS is that proficiency in reading and writing will only be achieved within a structured instructional program that develops learning through rich, content area resources (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010).

In terms of the CCSS writing standards, there are shifts in learning outcomes that emphasize expository writing, as new reading standards bring increased emphasis to expository reading. Students in the earliest grades will be expected to construct logical arguments and cite relevant evidence in opinion writing, analyze and present findings from research in written reports, and will have their work in both expository and narrative writing measured with rubrics and against calibrated anchor pieces.

The CCSS goal of preparing students with the knowledge and skills needed for college and careers applies to all, including students with disabilities. Many special education students have not previously had full access and training in the use of the technology tools that are to be the platforms for assessing their learning. Many others have had modified programs that have limited their exposure to grade-level content and lowered expectations for achievement. Introductions to these new standards include statements for addressing how students with disabilities will access learning in the Common Core. The Common Core Application to Students with Disabilities document includes language addressing the needs of special education students, which states that

they should have supports and related services (Individuals with Disabilities Education

Act, 2004), an Individual Education Plan (IDEA, 2004), and well-trained teachers and

support personnel who can deliver an evidence-based individualized program. The ways

in which standards are taught and assessed for students whose disabilities significantly

impact their ability to benefit from their education is explicitly noted (National Governors

Association Center for Best Practices & Council of Chief State School Officers, 2010;

IDEA, 2004). Additional supports suggested by the authors include the availability of

supports and services that include teaching methods for student engagement based on the

Universal Design for Learning (UDL) strategies that foster engagement through validated

methods, as well as providing flexibility, supports, accommodations that do not alter the

standards or lower expectations, and assistive technology and devices to enable access to

the standards (Higher Education Opportunity Act, 2008).

Students with disabilities will have the opportunity to be successful in classrooms

oriented around the new standards only if critical elements are put into place: a sense of

ownership by all staff of all students, a culture of high expectations that students will

perform their best, intervention systems for struggling learners as measured by

performance, inclusion and collaboration ensuring access to general education content

and special education professionals, and organization of a standards-based program with

professional development support for teachers (McNulty & Gloeckler, 2011; National

Governors Association Center for Best Practices & Council of Chief State School

Officers, 2010).

Even though the CCSS guidelines have suggested these concepts be employed,

they are not explicit as to how schools and teachers are to design these instructional tools

and supports. Indeed, the implication that the increased demands of the new standards on students with learning difficulties may result in even greater struggle has not been addressed (Haager & Vaughn, 2013). It is left up to teachers to design instruction and methods of implementation to confront these challenges.

In this current age of rigorous grade-level expectations in the area of Language Arts, clearly redefined in California's Common Core State Standards (CCSS) and anchored by corresponding College and Career Readiness (CCR) competencies, students with learning differences will be significantly challenged in the general curriculum in preparation for college and career opportunities in their post-educational lives. Literacy skills are widely known to be a major area of difficulty for many students with varying types of learning disabilities. A federally funded project of the California Department of Education, California Services for Technical Assistance and Training (CalSTAT), affirms that explicit instruction, increased instructional time, more carefully scaffolded instruction, and additional feedback and practice will be needed to support struggling and special needs students in Reading and Language Arts instruction (Feldman, 2014). With the increased rigor and expectations in the Common Core, the challenges for these students and their teachers will be magnified (Haager & Vaughn, 2013).

The critical communication and language skills expected of students in secondary and collegiate settings require educators in primary schools to be prepared to provide appropriate, high-quality, foundational writing instruction for all learners, including those with recognized learning differences. Many of these students have difficulties in the area of executive functioning, which can interfere with planning, executing, and refining written products for maximum effectiveness, making writing very challenging for those

students with recognized learning differences (Denckla, M. 2007; Harris, Reid, & Graham, 2004).

General education teachers must prioritize instruction for their students to gain the most essential learning objectives. The shift to a more integrated approach may deemphasize or shorten opportunities for mastering the discrete component skills in reading and writing, especially for students who traditionally have needed additional supports for foundational English Language Arts skills (Haager & Vaughn, 2013). As in the past, basic reading fluency and writing conventions will still be need to be taught as isolated skills, at least in the primary grades. Even with specialized accommodations and supports, special education students may require strategic or intensive intervention in order to be successful in higher-level literacy tasks.

Writing is conceived of within the Common Core framework as a tool for active learning as well as a means by which learning can be assessed (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010). Growth in literacy and content learning is often measured by writing, yet special needs students present particular literacy needs that must be met in an engaging, supportive classroom environment. (Brozo & Simpson, 1999). The writing task necessitates the student writer to coordinate a multitude of skills and competencies. Due to it's complexity, writing presents the highest academic degree of difficulty for the executively challenged student population.

Experiencing success with writing in the elementary school years leads to the development of a sense of self-efficacy which may lead to more consistent effort and engagement in the writing process (Shunk, 2003; Graham, Harris, & Mason, 2005).

Many children with executive functioning challenges, however, experience repeated

failure or may become dependent on curricular modifications that may reduce students'

self-reliance and independence.

Executive functioning skills include response inhibition, working memory,

emotional control, flexibility, sustained attention, task initiation, planning/prioritization,

organization, time management, goal-directed persistence, and metacognition (Dawson &

Guare, 2010). For all writers, skilled writing involves many, if not all, processes included

under definitions of executive functioning. A writer must think about what to do and say,

create goals and plans for their execution, and flexibly and effectively apply and

coordinate a variety of resources while planning, drafting, and revising (Graham, Harris,

& Olinghouse, 2007).

Writing tasks, regardless of which set of standards learning is based upon, become

increasingly more demanding as students move through the grades. By Grade 3, today's

students are expected to be able to write in well-constructed paragraphs, and 4th and 5th

Graders will write multi-paragraph reports and essays. Depending on the degree of

support and structure imposed by a teacher assigning written work in class or for

homework and the level the assignment's difficulty, many to all of these executive skills

are needed to bring the assignment to it's anticipated conclusion.

During independent tasks, a great deal of focus and attention is demanded of a

writer. Understandably, students with biologically impaired functioning of these essential

skills are likely to encounter frequent difficulty and frustration in school and, in

particular, when they are asked to perform writing tasks. Immature writers may rely on

simply telling all they know about a topic as their approach to expository writing,

minimizing the executive functioning demands. When assignments become more complex, this approach can break down. Common writing problems relate to executive functioning deficits starting at Grades 3 – 5, but may also include fine motor coordination (handwriting) difficulties, spelling problems, and affective factors (i.e., lack of motivation, negative attitudes). Immature executive skills may cause inability to get started with a task, maintain focus to complete it, and edit for errors.

Writing activities, whether pencil/paper-based or on keyboards, are embedded in the everyday elementary classroom. Instruction in written expression, involving composition of varying types depending on grade level, including both mechanics (spelling, punctuation, grammar, handwriting, and editing) and written content (planning, drafting, and revising), is generally taught as an instructional focus, but may also be incorporated into content area learning (response to literature, social studies, science). While it is important that students develop solid written communication skills to be successful in school, there are many obstacles that executively challenged students must face when writing projects are assigned. Too often, students with attentional and executive deficits have already experienced failure and loss of self-esteem, which may strongly impact their attitude towards and quality of writing (Garcia & De Caso, 2004). Low expectations of these students may also result in inappropriate supports or excessive accommodations and, consequently, low performance, further cementing the student's conception of lack of ability.

Besides an increased focus on supporting students with disabilities in meeting more challenging academic content standards, the Individuals with Disabilities Education Act's (IDEA) principle of Least Restrictive Environment (LRE) results in state-wide

education policies that support educating students with special needs students primarily in general education settings. The U.S. Department of Education reported that special education students made up 13.1% of total school K-12 enrollment nationwide (U.S. Department of Education, 2009). The Rehabilitation Act of 1973's Section 504 is a federal statute that prohibits discrimination on the basis of a disability. These 504 accommodation plans may be designed for students with identified disabilities not covered under IDEA, such as AD/HD, to ensure that these students have equal access to education like their non-disabled peers. While frequency data of students with 504 plans in the total public schools population based on government reports or research studies is rare, Holler and Zirkel (2008) reported that students with these plans comprise approximately 1.2% of the total school-age population, with AD/HD the most prevalent disability at 80% of this total.

Students whose disabilities may be associated with writing difficulties in due to executive functioning deficits include those with Speech/Language Impairment (SLI), Specific Learning Disability (SLD), Autism (AUT), Other Health Impairment (OHI), and Emotional Disturbance (ED). Table 1 illustrates the percentage of students, ages 3 – 21, with disabilities commonly associated with writing difficulties in general education settings. The Grades 3 - 5 California enrollment figures numbered approximately 44,000 – 47,000 individuals per grade level in 2012. Special education students in Grade 4 who were eligible to take the California Modified Assessment (CMA) Writing Test, giving them access to the 4th Grade CMA Writing Test, numbered 27,675 in 2013 (California Dept. of Ed., 2013).

Table 1

Distribution of Population Served Under IDEA by Primary Disability Type - 2007-08

Disability type	Percent
Specific Learning Disability (SLD)	39%
Speech/Language Impairment (SLI)	22%
Other Health Impairment (OHI)	10%
Autism (AUT)	4%
Emotional Disturbance (EBD)	7%
Other	18%

Note. Adapted from "Fewer, clearer, higher Common Core State Standards: Implications for students receiving special education services," by R. J. McNulty and L. C. Gloeckler, 2011, p. 5. Copyright 2011by the International Center for Leadership in Education.

To qualify for special education and related services, a child must be determined to meet disability eligibility criteria under at least one of fourteen handicapping conditions under the federal special education law Individuals with Disabilities Education Act through a formal educational evaluation. Further, a child's educational performance must be adversely affected due to the disability. Once eligibility has been established, public schools must offer a Free, Appropriate Public Education (FAPE) in the Least Restrictive Environment (LRE) through an Individualized Education Plan (IEP) that includes special education and, potentially, related services. Students not covered under IDEA but covered under a Section 504 plan are also protected by similar provisions of the anti-discrimination act that promote inclusion (LRE) and an individualized education (FAPE).

More students with established disabilities with Individual Education Plans (IEPs) or 504s and others with challenged learning profiles, such as those with AD/HD, are struggling to meet writing standards and grade-level expectations in general education classrooms. Given the self-efficacious teacher, who holds a belief that all students can learn, there is a need to tailor instruction towards meeting individual needs. The competent classroom teacher has an established classroom management system that allows him/her to create a safe, healthy learning environment and well-designed instructional strategies so that most students are empowered to put their efforts into self-directed learning objectives.   Students with mild/moderate disabilities, however, may require additional individualized supports while still being expected to participate in and gain from grade-level content.

As teachers strive to meet their students' needs and the demands of the school systems that employ them, designing and delivering effective writing instruction and adapting classroom instruction in written expression will continue to place considerable demands on both general and special education teachers. Access to learning in the context of the Common Core classroom need not be reduced by barriers due to students' disabilities. Inherent in the standards is the belief that students with learning disabilities should be able to attain the same standards and learning outcomes (Thurlow & Quenemoen, 2012).

In endeavoring to provide appropriate instruction for struggling writers, general education teachers and their students not only deserve the support of administration and support staff. Teachers also have the right to access high-quality staff development, including a variety of readily adaptable writing tools to address the broad spectrum of

learning differences in their classrooms. This approach will ensure that all students have the opportunity to gain skills for tomorrow while building core beliefs in themselves as learners today.

Purpose Statement

The purpose of this project is to provide grade 3 -5 classroom teachers with ready-made, adaptable writing tools and strategies with which to support their students with executive functioning difficulties in the general education classroom based on the CCSS. This project will describe a range of targeted support tools, from more universal strategies designed to build students' sense of self-efficacy in general, to more focused, specific adaptations to writing assignments. These strategies and adaptations are largely derived from existent sources in the literature of speech & language, general education, special education, and psychology. These strategies can be adapted to be taught by both general and special education teachers, and can be implemented and monitored by teachers and specialists.

Theoretical Rationale

The field of executive functioning is a relatively new one. Beginning in the 1970s, a number of researchers have published work in which different theories and models have been described, although roots of varying theories may be traced in the literature of the 1960s. Competing theoretical constructs of executive function are still evolving, due to the complex nature of the frontal region of the brain, the difficulty of studying this region, and the multiple perspectives and backgrounds of researchers. The field of inquiry into the nature and role of so-called executive functions has virtually exploded in the past two decades. The emerging field is still attempting to resolve a unified concept for the

processes of executive function and the relationship between the executive functions and cognition (Meltzer, 2007; Denckla, 1996, 2005; Lyon & Krasnegor, 1996).

There seems to be general agreement that the term executive function relates to the complex brain processes and ongoing regulation of goal-directed behaviors (Meltzer, 2007). The common threads involved in the approaches are in describing the mental capacities that direct other mental processes and actions and the link to the activation of the frontal lobes of the cerebral cortex (McCloskey, Perkins, & Van Divner, 2009). The methods of inquiry have been broadly defined by neuropsychology and the psychometric tradition, whereas some attempts have been made to connect these findings (Baddeley, 1996).

Although multiple perspectives on executive functions exist, the sheer variety of which exemplify the complexity of the psychological processes involved, theories may be said to fall into four broad categories or approaches: memory accounts, complexity theories, accounts emphasizing redescription, and accounts emphasizing inhibitory control that evolved further into developmental perspectives (Zelazo, Muller, Frye, & Marcovitch, 2003). These diverse approaches focus on different aspects of the development of executive functions and hypothesize different mechanisms.

Memory accounts of executive function are exemplified by a working memory or central executive model. This construct has been denigrated over time as associated with a homunculus, or little meta person in charge, yet the central executive component of working memory is a powerful system as first described in 1974 by Baddeley and Hitch (Baddeley, 1986; Baddeley, 1996). Baddeley's work relied on the Supervisory Activating System (SAS) component of Norman and Shallice's model of attentional

control (Norman & Shallice, 1980). While citing an anatomical locus, neuropsychological evidence is used to define criteria for the central executive; however, the processes of proving this theory are incomplete. While mapping the executive system of working memory anatomically in a frontal position in the brain, Baddeley describes the model as functional in nature. "Working Memory" is defined most often as the ability to simultaneously hold information and create a plan for using it in an upcoming action, requiring both storage and processing. Working memory has three components: a central executive, a phonological loop, and a visuo-spatial scratchpad (Baddeley, 1996, 1998). The central executive is able to coordinate and integrate the visuo-spatial and sound-based information. While acknowledging the difficulty of attributing the coordination of the executive functions to a single entity, Baddeley considers this theory to be useful until such a day as a more definitive answer emerges (1996).

Denckla (1996), and Stuss and Alexander (2000), however, have theorized that there is no unitary executive function. The popularized metaphor of the "orchestra conductor" has been utilized as a simplified explanation of the executive processes, based on the writings of Goldberg (2001) and Brown (2005), reporting on their findings in studies related to attention disorders and the role of the frontal lobes in the neuropsychological literature. Stuss and Alexander (2000) conceptualized the executive functions as an interdependent network of multiple cognitive, directive capacities, closer to a collection of "co-conductors." This group of executive functions cues the other cognitive capacities of language, reasoning, and visuospatial representation (McCloskey, Perkins, and Van Divner, 2009). Interconnected models of executive functioning based on information processing and inhibitory control perspectives of various

neuropsychology researchers and clinicians, such as Barkley (1997), Denckla (1996), Miller (2001), Stuss and Alexander (2000), Freeman (2000), et al, were integrated into a single theory of executive control by McCloskey, Perkins, and Van Divner (2009), citing the former authors' work and that of others who delineated the executive function capacities. McCloskey, Perkins, and Van Divner (2009) explain that an individual's separate executive capacities may be unevenly developed and/or that the interconnections of various capacities may be less developed in a given individual. Therefore, a person may be seen to have a pattern of strengths and weaknesses, with varying amounts of efficiency and coordination in various cognitive domains.

The important role of complexity in the developmental literature can be traced to Inhelder and Piaget (1964) and Vygotsky (1962). From a developmental perspective, one complexity theory is the Cognitive Complexity and Control Theory (CCC), intended as a theory of executive functioning and its development. CCC theory views executive function as a functional construct, describing a hierarchical structure of children's rule systems. In these studies, children have been observed to use self-directed silent speech, linking antecedents and consequences. Children apply this conscious reflection on their planning in order to formulate personal rules. These self-developed rules may be applied to and embedded within more complex, higher order rules or can be applied in another situation. This problem-solving framework has four distinct phases: problem representation, planning, execution (intending/rule use), and evaluation (error detection/correction) (Zelazo & Frye, 1997; Frye, Zelazo, & Burack, 1998; Zelazo & Frye, 1998). CCC theory relates to Luria's (1961) work in cognitive development in which he refers to growth in executive function. This theory does not attempt to explain

executive function, but attempts to lay the groundwork for explaining it within basic

processes (e.g., memory, attention, action monitoring). The theory notes that age-related

changes occur throughout childhood, allowing higher levels complexity in rule-

development and, therefore, new degrees of control over children's reasoning and

behavior take place.

In a related theory of cognitive development, identified as Representational

Redescription, Karmiloff-Smith (1993) also addresses children's rule-based systems, but

this model differs from CCC Theory in that the rules are represented unconsciously.

Mastery of a behavioral sequence within a domain is required before a new level of

difficulty is possible. New representations are stored independently, so that links are not

made across domains. Representational Redescription Theory addresses perseveration

(inflexibility) by explaining the lack of understanding that objects can be used in several

ways; whereas, in CCC Theory, perseveration is explained by response-based

interference in which significant features of objects are ignored, resulting in the failure to

activate new rules.

Denckla's historical overview traces an early connection between deficient

executive functioning and it's possible central role in attention-deficit disorder (ADHD)

(Barkley, 1997) in the late 1980s (in Meltzer, 2007). The term "executive function"

became of great interest to neurologists and neuropsychologists, especially given the

possibilities presented by magnetic resonance imaging (MRI). Pennington's (1991) work

on attention deficit and executive function deficit (ADHD/EDF) pointed to a frontal

region of the brain. Studies of children with traumatic brain injury showed the similarity

in frontal injury and AD/HD (Levin et al, 1993). Levin (1991) and Pennington (1991) both wrote of the trajectory in the development of executive functions.

Barkley (1997) argued that a there was a need for a new, unified, theory-driven model of AD/HD that must link two general AD/HD constructs of inattention and poor behavioral inhibition with difficulties with the executive or metacognitive functions, as AD/HD's cognitive deficits are largely related to self-regulation and executive function. He also insisted that, if AD/HD was said to arise from a delay in developmental processes, the AD/HD literature should be connected through research to those of developmental psychology and developmental neuropsychology.

Barkley extends the then-current model of AD/HD, integrating the work of others and his conceptualization of behavioral inhibition into a hybrid, neuropsychological model of executive (self-regulatory) functions. Denckla (in Meltzer, 2007) departed from the neuropsychiatric and neuropsychological perspectives, which could be called the "medical model," by connecting that body of work to the fields of education and educational psychology. The historical literature of learning disabilities and special education include the related terms "planning," "organization," "self-monitoring," and "study skills." Denckla argues that executive function should not be conceived of as either "higher cortical function, as in the medical model, or as "higher-order thinking," as in the educational model, because neither model fully accounts for the development of a "constant back-and-forth, up-and-down, interactive, looping fashion" of development involving other cognitive domains (in Meltzer, 2007, p. 7).

Another developmental perspective is that of Moran and Gardner (in Meltzer, 2007), who describe executive function as the integration of the three parameters of "hill,

skill, and will," which become more complexly integrated with age and experience. A simplified version of his model is comprised of two broad stages: the apprentice stage, in which executive function is an internalized and culture-driven aspect of personal identity, and the master stage, where one's individually developed executive function is in command over productivity and goal-driven behaviors. Moran and Gardner relate the concept of intrapersonal intelligence and executive function in Gardner's multiple intelligences framework in relation to notions of the development of self-concept and the ability to regulate behavior within a given environment (in Meltzer, 2007, p. 23). In other words, the development of self and the trajectory of the executive functions are inextricably related to a social, cultural context.

Gardner's work is supported by current social cognitive theory, defined by Bandura (2002), as a model of reciprocal interactions between the social context and the self, expressed in self-efficacy, or beliefs in their capabilities to effectively apply their learning, to organize and execute a designated course of action. Bandura explains that the socio-cultural context is inextricably bound to human functioning.

Bandura's theory describes three modes of agency: personal agency, proxy agency (relying on others to achieve desired outcomes), and collective agency (in group action). Each mode of agency derives from the belief in the power to make things happen, all of which are needed every day for successful functioning regardless of one's socio-cultural context. Bandura's social cognitive theory includes perceived self-efficacy as one factor governing human motivation and actions (Bandura, 1991). Core beliefs of personal efficacy regulate functioning through cognitive, motivational, affective, and decisional processes and impact whether an individual acts in self-enhancing or self-

debilitating ways. They impact how individuals motivate themselves, persevere through difficulties, and contribute to the quality of overall functioning. The regulation of one's personal motivation and learning activities impacts intellectual development.

In the social realm of proxy agency, individuals try to get what they need by relying on others to acquire a sense of well being, security, or other things they want that are not available or burdensome to gain through direct, personal control (Bandura, 1999).

Social cognitive theory addresses group dynamics, whose functioning involves perceptions of collective efficacy in the minds of group members. Group functioning is influenced by collective beliefs of efficacy as individual functioning is enhanced through perception of self-efficacy (Stajkovic et al, 2009). As in personal agency, group efficacy influences the effective use of resources, effort put forth in group endeavors, perseverance and vulnerability to discouragement in the face of challenges, and life choices in regards to collective activities (Bandura, 2002).

Perceived self-efficacy plays a critical role in motivation through outcome expectations. Implementation of decisions and sticking with a plan in the face of difficulty requires a sustained belief in self and one's ability. Those with a high degree of self-efficacy are more likely to attribute failure to correctible factors, such as insufficient effort, ineffective strategies, or unfavorable circumstances, rather than low ability, which has a detrimental affect on motivation and choosing to risk potential failure in future endeavors (Bandura, 1999). Given that education has an important orientation to providing students with self-regulation skills and intellectual tools to put students on a path to a lifetime of learning, Bandura notes that belief in one's academic efficacy is a predictor of academic achievement and future academic aspirations.

Background and Need

Education for students with disabilities has gone through dramatic changes in the 20th Century. Two ideas central to those changes were the concepts of "normalization" and "deinstitutionalization." The philosophy of normalization, that special education should employ means that promote culturally normative behaviors of disabled individuals so that barriers to participation in the broader society would be broken down, was a contributing factor leading to the closing of isolative institutions in the 1960s and '70s. The deinstitutionalization movement has not only been central to moving children and adults out of residential institutional settings, but has also led to closer connections to families and local communities (Hallahan, Kauffman, & Pullen, 2012).

There were several key developments that changed special education from an exclusive delivery model to an inclusive model in which the majority of students with special education needs are educated in general education.

Section 504 of the Rehabilitation Act of 1973 is a federal law designed to protect the rights of individuals with disabilities in programs and activities that receive federal financial assistance for elementary and secondary education through the U.S. Department of Education.

The Regular Education Initiative (REI) of 1986 was a concept promoted by former U.S. Department of Education Assistant Secretary, the former Director of the Federal Office of Special Education Resources, Madeline Will, whose goal was to integrate the regular education and special education systems (Will, 1986). This document was a call to all educators, both general education teachers and special

educators, to form partnerships to address the needs of all students, including the

concerns of students who struggle to achieve in the regular education environment. Will

pointed out flaws in the special education system, including the perception that special

education is a placement (taking place in a separate setting), as opposed to a viewing it as

a delivery system offering a broad continuum of services based on individual needs. Will

and others pointed out that the continuing perceptions associated with placing learning

disabled students in separate learning environments tends to reduce their access to high

quality learning materials and instruction, and standardized assessments and grades,

exposing them to lower expectations and, therefore, lower learning outcomes.

One of the most debated issues in education for decades, persisting to this day, is

the determining the extent of and how best to accommodate inclusion of students with

special needs in general education classrooms. These debates not only center around

what options along a continuum may offer the best outcome for students, but also on the

legal ramifications, the extent of staff and financial resources available in schools, and

parent advocacy. The educational reform issue of inclusion is addressed in the landmark

1975 federal law, The Education for All Handicapped Children Act, and appears as a

major provision of the Individuals with Disabilities Education Act (IDEA) of 1990,

reauthorized in 2004. This law requires that the educational plan for an eligible individual

must ensure that "the student is educated in the least restrictive environment (LRE)

consistent with his or her education needs and, insofar as possible, with students without

disabilities" (IDEA, 2004). Although the law does not reference the terms "inclusion" or

"mainstreaming," a related concept, it makes clear that the removal of disabled

individuals from the regular education environment must only occur when the severity of

needs due to the disability is such that education cannot be satisfactorily achieved even with the use of supplemental aids and services.

There was a great deal of resistance to the REI by many schools and educators. Early reforms generated by the REI included the concept of "mainstreaming," placing special education students for all or part of the day in a general education classroom with supports. Components of the early inclusion models included these key elements: students with or without disabilities would attend their neighborhood schools; general educations classroom placements were to be age and grade appropriate; and special education would provide needed supports in the general education classroom.

After the 1975 passage of IDEA, due to continuing complaints that inclusion of disabled children in general education was not being implemented according to the spirit of the law, parents brought actions in federal courts to compel integration. Two cases are primarily cited as precedent in inclusion lawsuits. In *Roncker v. Walters (1983),* the U. S. Court of Appeals, Sixth Circuit upheld the mentally retarded student's right to remain in a special program in a public school. In 1989 *Daniel R. R. v. State Board of Education El Paso School District (1989),* the Fifth Circuit court found that Daniel's needs could not be met in a general education classroom (Florida State University Center for Prevention and Early Intervention Policy, 2002).

There has been a steady trend towards placing more special needs students in general education classrooms and fewer in resource rooms, separate classes, and separate facilities since the late 1980s. (U.S. Department of Education, 1995, 2005, 2009). In the first generation of the inclusionary model, advocates for students with moderate and severe disabilities sought to move them into general education settings. In the next wave

of inclusionary education, a major restructuring began to take place within general education environments to accommodate the needs of students with mild/moderate disabilities. Collaborative practices became the norm as special education and general education teachers worked together to teach and design programs for their shared students. In the early 21st Century, 52% of students with disabilities of all types were in general education classrooms most of the time and 26% were in general education classrooms about half of the time. (U.S. Department of Education, 2009).

In their 2002 final report, the 5-year project by the Consortium on Inclusive Schooling Practices, funded by the U.S. Department of Education, reported that, "Despite improvements, students with significant disabilities still experience barriers in their efforts to gain access to the general education curriculum with appropriate supports and accommodations (Salisbury et al, 2002, p. 31). The report goes on to note that the prevailing education model for students with significant disabilities is placement in an alternative classroom environment in the three states included in their study, California, New Mexico, and Missouri. Overall, academic outcomes for students with disabilities in general education classrooms have led to comparable or positive results; however, those results have been inconsistent for students with learning disabilities. The effects on students in inclusive programs with high incidence disabilities and their typical peers was found in a two-year study, in which greater gains were made in math by students with disabilities in the inclusive setting as compared to a traditional special education setting, but comparable gains were made in both types of settings in reading (Waldron, Cole, & Majd, 2001). Yet, the research supports the implementation of teacher-directed strategies

in inclusive classrooms to promote academic achievement as well as positive social and behavioral outcomes at all grade levels (Soodak & McCarthy, 2006).

The controversy surrounding inclusion in the general education classrooms for all kinds of students is still one that is much debated among stakeholders. The efforts of many education reform activists and disability advocates promoting inclusion of disabled students with non-disabled peers continues with considerable energy and activity.

Current issues associated with inclusionary practices continue to challenge educators, chief among them being the division of responsibility for implementing individualized instructional programs. All educators are now expected to make maximum efforts to accommodate individual student needs, participate in educational evaluations and the development of individualized programs for special needs students, communicate with parents regarding student progress, and collaborate with other professionals.

A key factor in effective inclusion is collaboration and planning time, so that teachers may design a challenging curriculum for all their students. Many school districts have attempted to provide for common planning time, yet most teachers feel the lack of compensated time for planning to be an impediment to individualizing teaching and learning. Another barrier for general education teachers is the fear of being unprepared to bear the responsibility for meeting the needs of students with disabilities. A third issue teachers may have is feeling they do not have a voice in making decisions about teaching in an inclusion environment. Finally, many educators, despite making great efforts on behalf of their special needs students, feel concern that the amount of time required for providing for high needs students may negatively impact the quality of education they are able to provide to other students (although evidence has not been shown that there are

negative academic or social outcomes for non-disabled students in inclusion settings).

Other opposing views have been expressed by administrators, who do not feel that they

have adequate resources to provide for inclusion students, and by parents, who fear their

children will be put into service as peer tutors for needy students.

Approximately 10% of students enrolled in public schools have identified

disabilities. However, teachers in general education classrooms are faced not only with

meeting the needs of their learning-challenged students, but the learning needs of the full

range of diversity of students in their classrooms.

Students with underdeveloped executive systems commonly have difficulty with

independent seatwork in school. A wide variety of negative effects on production in

academic areas will be seen (McCloskey, et al., 2009), particularly when beginning tasks

and in sustaining the effort necessary for their completion. Misunderstanding parents or

teachers are likely to attribute poor production habits to laziness, lack of motivation or

responsibility, or lack of respect for authority, especially when no contributing diagnosis,

such as a specific learning disability, has emerged and a developmental delay in attention

or executive function has not been identified. In actuality, a mismatch between

production demands and executive functions can be the culprit (McCloskey, et al., 2009).

The Role of Assessment in Instructional Planning

While independent math and reading tasks can present significant problems, the

most difficult task for many students who have deficits in planning, organization, and

self-regulation are writing tasks. In students with executive dysfunction, a learning

disability in written expression is often determined in a school assessment (Denckla,

2007). A process-oriented assessment is recommended for determining whether specific

executive function deficits are a major component of writing problems. Coping behaviors that are rooted in repeated failures on tasks that require not yet acquired individual capacities or interrelated functions, such as directing the efficient and fluid production of language for specific production demands, can interfere with student engagement. Conversely, high self-efficacy, good resiliency, and compensatory mechanisms can hide executive function weaknesses. An investigation into the student's effort cycle to identify which specific cognitive processes are not functioning or whether psychological/emotional problems are impacting a student's functioning is wise (Meltzer & Krishnan, 2007). A careful, process-oriented observation and analysis of student skills and behaviors on informal measures of assessment can serve as a basis for generating a hypothesis of the cause of problems a student is experiencing. Due to the complexity of written expression, interference in performance can arise from one or a number of different sources. Discrete measures of task performance can be helpful in measuring whether abilities to apply basic academic skills, along a continuum of complexity, such as the ability to fluently copy alphabet letters, exist.

The results of observation and analysis of assessment information will be utilized in designing appropriate interventions and supports (McCloskey, Perkins, & Van Divner, 2009). When assessing executive capacities in a neuropsychological evaluation, caution is advised to utilize a complete picture of the child, as there are many factors that can contribute to difficulties in self-regulation and organization (Bernstein & Waber, 2007).

Writing is an essential skill for educational use and future employment. Executive functioning deficits may factor into a delay in development of writing and writing difficulties (Graham, Harris, & Olinghouse, 2007); however, despite the important role

executive skills play in skilled writing, there has been little research done that investigates their role in learning to write well. Written expression involves numerous complex processes that are likely to challenge the AD/HD or executively challenged child - defining the first step, planning, evaluating, rephrasing, and sequencing.

The physical form of the final product, involving grapho-motor execution processes in text production, is guided by coordinated executive functions such as initiating, pacing, retrieval, monitoring, sustaining, correcting, focus/select, organizing, and holding (in working memory). For students as young as Grades 1 – 3, being asked to write only a basic sentence or two, tasks involving writing require multiple executive skills at the routine level to self-generate new material (skill with producing letters, spelling). Simply copying text alone, the self-regulatory processes of sustaining focused attention and effort combined with maintaining accuracy assume fluent text generation skills. While individual executive skills, motivation, and affect are undoubtedly important factors to be aware of, teachers may fail to appreciate their students' skill deficits that can factor into low production rates in these students; for instance, children with executive functioning and learning disabilities have a high risk for handwriting difficulties that contribute to a reluctance for writing tasks. Interventions to remediate delayed basic skills may be required. Graham and Perin (2007) reported that 70% of students in Grade 4 – 12 are low-achieving writers and that 50% of high school graduates are not prepared for college-level writing. In addition, many high school graduates in the work force believe their writing skills to be inadequate, as do prospective employers.

A process-oriented assessment is recommended for determining whether specific executive function deficits are a major component of writing problems. Coping

behaviors that are rooted in repeated failures on tasks that require not yet acquired individual capacities or interrelated functions, such as directing the efficient and fluid production of language for specific production demands, can interfere with student engagement. Conversely, high self-efficacy, good resiliency, and compensatory mechanisms can hide executive function weaknesses. An investigation into the student's effort cycle to identify which specific cognitive processes are not functioning or whether psychological/emotional problems are impacting a student's functioning is wise (Meltzer & Krishnan, 2007).

A careful, process-oriented observation and analysis of student skills and behaviors on informal measures of assessment can serve as a basis for generating a hypothesis of the cause of problems a student is experiencing. Due to the complexity of written expression, interference in performance can arise from one or a number of different sources. Discrete measures of task performance can be helpful in measuring whether abilities to apply basic academic skills, along a continuum of complexity, such as the ability to fluently copy alphabet letters, exist.

The results of observation and analysis of assessment information will be utilized in designing appropriate interventions and supports (McCloskey, Perkins, & Van Divner, 2009). When assessing executive capacities in a neuropsychological evaluation, caution to utilize a complete picture of the child is advised as there are many factors that can contribute to difficulties in self-regulation and organization (Bernstein & Waber, 2007).]

Need for the Study

School districts expect their teachers to teach their students, beginning in elementary school, to be able to write well and to use writing as a tool for learning. In

order to do that, teachers must provide not only explicit writing instruction but must embed writing throughout the curriculum as a means to assess student learning, provide students with a means to reflect on and process their own learning, and help them to develop communication skills that will be critically important in higher education pursuits and in a broad range of future employment. The CCSS require that teachers change the ways writing instruction is taught. A handbook will serve as a useful tool as teachers develop new instructional practices.

Definition of Terms

Accommodation: Provided to a student with a disability, an accommodation is an instructional strategy that allows a student to complete the same assignment or test as other students, but with a change in the timing, formatting, setting, scheduling, response and/or presentation. This accommodation does not alter in any significant way what the test or assignment measures.

Anti-discrimination Act: The U.S. Rehabilitation Act of 1973, signed into law by President Richard M. Nixon, prohibits discrimination on the basis of disability in programs conducted by Federal agencies, in programs receiving Federal financial assistance, in Federal employment, and in the employment practices of Federal contractors.

Attention Deficit Hyperactivity Disorder (ADHD), also known as Attention Deficit Disorder (ADD): A neurological condition that involves problems with inattention and hyperactivity-impulsivity that are developmentally inconsistent with the age of the child. ADHD is not a disorder of attention, as had long been assumed; rather, it is a function of developmental failure in the brain circuitry that monitors inhibition and self-control.

Although for years it was assumed to be a childhood disorder that became visible as early as age 3 and then disappeared with the advent of adolescence, the condition is not limited to children. It is now known that while the symptoms of the disorders may change as a child ages, many children with ADHD do not grow out of it. Problems in behavioral inhibition caused by ADHD lead to problems in executive function, working memory, lack of hindsight/forethought, time awareness and time management, and disrupting the ability to engage in persistent goal-directed activity. Three sub-types have been designated,including inattentive type, hyperactive type, and combined (inattentive/hyperactive) type.

Common Core State Standards (CCSS) and the Common Core State Standards Initiative (CCSSI): The Common Core State Standards Initiative is a U.S. education initiative that seeks to bring diverse state curricula into alignment with each other by following the principles of standards-based education reform. The Common Core State Standards (CCSS) are a set of high quality academic expectations in English-language arts (ELA) and mathematics that define the knowledge and skills all students should master by the end of each grade level in order to be on track for success in college and career.

Executive Functioning: A concept generally understood as the multiple cognitive processes or capacities applied by individuals to direct and coordinate purposeful, organized, self-regulated, goal-directed processing of perceptions, emotions, thoughts, and behavior, belonging primarily to a system of different regions within the frontal lobes of the brain. These independent but coordinated processes vary in amount and efficiency from person to person.

Free and Appropriate Public Education (FAPE): The purpose of the Individuals with Disabilities Education Act (IDEA), ensuring that all children with disabilities have available to them a free appropriate public education that emphasizes special education and related services designed to meet their unique needs and prepare them for further education, employment, and independent living. Courts have held that to receive a free appropriate public education, the child must receive meaningful educational benefit. The 1982 U.S. Supreme Court's Rowley decision defined FAPE as "access to an education" or "a basic floor of educational opportunity." Since the No Child Left Behind Act of 2001, requiring high standards to be adopted for all students and that they be assessed to measure progress towards attaining those standards, and subsequently, the reauthorization of IDEA in 2004, the focus has shifted from access and compliance to improved educational outcomes for students with disabilities.

General Education: The standard curriculum presented without any special teaching methods or supports.

High-incidence disabilities: Disabilities that are among the most prevalent types, such as learning problems and behavioral disorders.

Inclusion: A term referring to the effort to include students with disabilities in the regular education environment in age-appropriate classrooms in their community schools to improve services and promote a sense of community and student empowerment where students have specially designed instruction and supports per their Individual Education Plans so as to succeed as learners and to achieve the same educational standards as their non-disabled peers.

IDEA: Public Law 99-142, the Individuals with Disabilities Education Act of 1990, most recently reauthorized in 2004, is a United States federal law that governs how states and public agencies provide early intervention, special education, and related services to children with disabilities. IDEA addresses the educational needs of children with disabilities from birth to age 21 in cases that involve 14 specified categories of disability.

Learning Disability: (from IDEA) ". . . a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia." However, learning disabilities do not include, "...learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage." (34 Code of Federal Regulations §300.7(c)(10))

Least Restrictive Environment (LRE): A requirement from Part B of the Individuals with Disabilities Education Act (IDEA) that states that, if a school is to receive federal funds that, to the maximum extent appropriate, school districts must educate students with disabilities in the regular classroom with appropriate aids and supports, referred to as "supplementary aids and services, " along with their nondisabled peers in the school they would attend if not disabled, unless a student's IEP requires some other arrangement. This requires and individualized inquiry into the unique educational needs of each disabled student in determining the possible range of aids and supports that are needed to facilitate

the students's placement in the regular educational environment before a more restrictive placement is considered.

Metacognition: Awareness and understanding of one's own thought processes.

Response to Intervention (RTI): A method of academic intervention used in the United States to provide early, systematic assistance to children who are having difficulty learning. RTI seeks to prevent academic failure through early intervention, frequent progress measurement, and increasingly intensive research-based instructional interventions for children who continue to have difficulty.

Modification: Provided to a student with a disability, a modification is an adjustment to an assignment or a test that changes the standard or the rigor or what the assignment is designed to measure, such that it is more achieveable.

Regular Education Initiative: Collaboration of professionals to provide the best possible education for all children through adaptions in the general education environment to better accommodate the individual needs of all students.

Section 504 of the Rehabilitation Act: Created and extended civil rights to people with disabilities. Section 504 has provided opportunities for children and adults with disabilities in education, employment and various other settings. Section 504 is a civil rights law that prohibits discrimination against individuals with disabilities, which ensures that the child with a disability has equal access to an education. The child may receive accommodations and modifications. Unlike the Individuals with Disabilities Act, Section 504 does not require the school to provide an IEP that is designed to meet the child's unique needs and provides the child with educational benefit. Under Section 504,

fewer procedural safeguards are available to children with disabilities and their parents

than under IDEA.

Self-efficacy: The measure of the belief in one's own ability to complete tasks and reach

goals.

Self-regulation: The ability to direct behavior and control impulses in order to meet

certain standards, achieve certain goals, or reach certain ideals. Self regulation involves

being able to set goals, monitoring one's behavior to ensure that it is in line with those

goals, and having the willpower to persist until goals are reached.

Special Education: The practice of educating students with special needs in a way that

addresses their individual differences and needs. Ideally, this process involves the

individually planned and systematically monitored arrangement of teaching procedures,

adapted equipment and materials, accessible settings, and other interventions designed to

help learners with special needs achieve a higher level of personal self-sufficiency and

success in school and community than would be available if the student were only given

access to a typical classroom education.

Universal Design for Learning: A set of principles for curriculum development that give

all individuals equal opportunities to learn, guiding the creation of instructional goals,

methods, materials, and assessments through flexible approaches that can be customized

and adjusted for individual needs.

Working memory: A group of mental processes involving short-term memory and

attention that allow keeping information in mind while using that information to complete

a task or execute a challenge, such as plan ahead, organize, problem-solve, or pay

attention. Working memory assists with keeping a goal in mind, resisting distractions, and inhibiting impulsive choices.

Review of the Literature

This review of the literature is organized by initially presenting a summary of a

meta-analysis of writing instruction in the elementary grades, followed by a review of

selected studies included in the meta-analysis that apply most directly to the purpose of

this paper. This meta-analysis included 115 studies on writing instruction by Graham,

McKeown, Kiuhara, and Harris (2012). The purpose of the analysis was to identify

effective instructional practices for teaching writing to elementary grade students. The

meta-analysis summarized the effects in terms of magnitude and direction in response to

concerns about the quality of writing instruction, with the intent of improving teaching

and writing for elementary school students. Further, given a growing consensus that

waiting to address literacy deficits until secondary school does not work, this meta-

analysis represents the first attempt to specifically review writing studies that focus on

elementary-aged treatment groups.

The 115 experimental and quasi-experimental studies included elementary school

general and special education students in grades $1-6$, taught in both general education

classrooms and special education settings (but not special schools). Participants

demonstrated a wide range of abilities, and included those with disabilities, bi-lingual

learners, average students, struggling writers, and high-achieving students. The earliest

study was published in 1964; the most recent study was published in 2012.

There were several criteria used to determine whether or not the study could be

included in this analysis in addition to the fact that participants were in grades $1-6$. It

had to be a true experiment or a quasi-experiment, include participants that received a

writing intervention, include a posttest measurement of writing quality, be presented in

English, and have statistics to compute a weighted effect size (ES). In the case of the quasi-experimental studies, pre-test measures were also included. The researchers compiled the list of studies meeting the above criteria by conducting a literature search using ERIC, PsychINFO, Education Abstracts, ProQuest and Dissertation Abstracts databases, and 18 educational and psychology journals.

The studies were read and ultimately divided into 13 writing treatment conditions with four or more effects testing their efficacy. The final categories included: the process approach to writing (i.e., Writer's Workshop); four treatments where explicit teaching of skills, process, or knowledge occurred; four categories for scaffolding students' writing; and alternative modes of composing. The studies were coded for grade, participant type, posttest measure genre, treatment and control conditions, and publication type, as well as quality indicators, such as design, treatment fidelity, control for teacher effects, attrition, and pretest/posttest effects.

Researchers calculated effect sizes for writing quality, measuring ES for true experiments and quasi-experiments through different means. Researchers calculated an average weighted ES for each treatment and determined confidence intervals and statistical significance of the obtained ES. The researchers considered information on the quality of the research for each writing treatment as well as specific quality indicators across all studies. They found considerable variation in study quality in different categories, ranging from the highest quality at 83% (adding self-regulation to strategy instruction), to the lowest at 0% (grammar instruction).

The researchers presented results in each of 13 categories of instruction. A positive effect was found to exist in all categories except for one, grammar instruction

(four studies). Teaching grammar did not statistically influence writing quality, with an average weighted ES of -0.41. The following section reports results of the remaining studies with positive ES.

Results were examined in studies involving the broad categories of explicit teaching, scaffolding students' writing, alternate modes of composing, and other writing activities including extra writing time and comprehensive writing programs.

The 47 remaining studies (besides grammar instruction) in the category of explicit teaching treatments were described. The explicit teaching studies involved an array of treatments, including strategy instruction, adding self-regulation instruction to strategy instruction, text structure instruction, creativity/imagery instruction, and teaching transcription skills.

The authors found support for their contention that, when students are given instruction in writing strategies or are taught specific knowledge about how to write, their writing improves. Twenty studies involving strategy instruction included struggling writers in nine of the studies. Strategy instruction was found to enhance the quality of students' writing with an overall average weighted ES of 1.02. Fourteen of those studies involved Self-Regulated Strategy Instruction (SRSD), a systematic collection of systematic writing interventions described by Graham, Harris, and Troia (2000). The authors recommended that students should be taught explicit strategies for planning, drafting, and revising different types of text (Graham & Harris, 2006).

Six studies included strategy instruction with the added benefit of self-regulation, including five involving SRSD. In all six studies, four including subjects who struggled with writing, adding self-regulation instruction to strategy instruction was found to have a

positive effect, with an average weighted ES of .50. The authors recommended that students be given procedures to regulate the writing strategies they are taught, such as teaching goal setting, self-assessment, and other procedures as in SRSD.

Nine studies involving text structure instruction were examined, all but one of which were performed with a full range of students in the general education classroom. These treatments improved writing quality, each producing a positive ES, with an average weighted ES of .59. The most positive effects of teaching how different types of text are structured and formed were found in typically developing students.

Four studies examined the effect of creativity development and imagery instruction, with one study involving struggling writers. All studies produced a positive ES, resulting in an average weighted ES of .70. Based on their findings, the authors recommended teaching writing through these means primarily to high-achieving students.

There were numerous studies included under the heading of scaffolding students' writing: a group of eight studies tested the effectiveness of prewriting activities (ES .54) (where one study included struggling writers); four studies utilized peer assistance when writing (ES .89); seven studies involved product goals, such as objectives to include specific types of information in their piece (ES .76); and fourteen effects were calculated for assessing writing, including teacher, peer, or self-assessment of writing (ES .42), where adult feedback was the most effective (ES .80). The researchers' recommendations for scaffolding students' writing included the following: create plans for students to work together to plan, draft, edit, and revise their papers; articulate specific goals for results in students' writing; engage students in pre-writing activities prior to drafting, such as collecting and organizing information; assess students' writing and their writing progress.

Authors found only partial support for the contention that a focus on skill development will produce growth in students' writing; however, they recommended teaching text transcription skills to improve the quality of writing. Eight studies tested the effect of teaching transcription skills (keyboarding: one study, hand-writing: five studies, and spelling: three studies), 75% of which produced a positive ES, with an average weighted positive ES of .55. Four of the studies with positive effects were conducted with struggling writers. Two of the studies with positive effects included struggling writers who used word processing programs with assistive technology programs. The authors suggested that students have word processing available as a primary tool for writing.

The remaining studies examined other writing activities, including extra writing time (ES .30) and comprehensive writing programs (ES .42). None of the studies for increased writing time included struggling writers. The authors recommend implementing a comprehensive writing program, as four of five studies testing such programs produce positive effects; however, they did not find a statistically significant effect for process writing when studies involved only students at risk, defined as struggling writers and English Language Learners.

The authors found support for six different types of writing instruction practices: strategy instruction; peers working together to plan, draft, and revise papers; product goals; prewriting activities; word processing; and teaching writing through a process-oriented approach. The authors of this meta analysis contended that, in order to implement the CCSS, many teachers and schools will need to identify and implement new ways of teaching writing and that evidence-based practices and effective tools will lead to writing improvement and student success. They stated that writing about what

students have read enhances learning, but that the level at which writing assists learning is dependent on writing skills. Tools for improving students' writing already exist, they said, such as those identified in the studies included in their meta-analysis. The authors concluded that more research is needed to determine the combination of instructional practices that will be optimally effective. Implementation of their recommendations necessitates professional development at pre-service and in-service levels in order for teachers to be able to apply them successfully.

Several studies included in the meta-analysis were analyzed more closely. Within the meta-analysis, twenty instruction studies targeted nine studies for writing treatments with struggling writers as participants. Of these studies, the four most relevant to this literature review were selected based on the following criteria: participants were students in Grades 3 – 5; the age of the studies was no older than those published beginning in 2002 (approximately ten years old or less); the effect size (ES) cut score was .75; and the population included struggling writers (and, in one case, struggling writers within the full range population). Four studies met these criteria and were included in this review of the literature. It is noteworthy that three of the studies are from the strategy instruction sub-domain of the explicit teaching group, and one is from the product goals sub-category of the scaffolding students' writing group.

A study by Troia and Graham (2002) examined the effects of a strategy-based instructional routine for pre-planning story and essay writing with a group of 4th and 5th graders, all of whom had IEP goals for improving their writing skills. Pairs of students were assigned to trained graduate students in quiet rooms in the school. Three explicit, advance-planning strategies – goal setting, brainstorming, and organizing – were taught.

This treatment was compared with a group who received a modified version of the process approach to writing instruction, which is the most common approach to writing instruction in the elementary grades. Based on the work of Graves (1983, 2010) and Calkins (1986, 2006), the process approach to writing, exemplified by the Writer's Workshop approach, emphasizes writing routines, mini-lessons as needed, the formation of a community of writers, teacher and peer conferencing, and sharing/publishing written work regularly.

Both groups of participants received pre-instruction to familiarize them with basic structural elements of story writing and opinion essays. Participants in the treatment group were taught advance planning strategies, signified by the acronyms STOP & LIST (Stop, Think of Purposes, and List Ideas, Sequence Them). This group was also given information on the rationale, value, impact, and general applicability of the three planning strategies. The control group's instruction was segmented into writing a rough draft, revising the rough draft, proofreading and editing, and publishing the final version. There were pre-test, post-test, and maintenance measures administered to both groups. Product measures used to evaluate students' stories and opinion essays evaluated their length and overall quality. In addition, students' advance planning time and the propositions put forth in their plans were also measured.

The results of their study indicated that instructing students with learning disabilities in three basic planning strategies through an explicit, highly teacher-directed approach had a positive impact on students' writing performance. The overall ES for the treatment group was .83. Stories written by the treatment group immediately after

instruction were qualitatively better than those in the control group and, after four weeks, the same group's stories were longer.

Results from the essay writing, however, showed no significant differences between groups for length, quality, or planning time. Time on task did not appear to be a significant factor in the quality of writing. The authors did not find maintenance or generalization data for applying learned strategies to be encouraging. Given that a more one-sided informational approach is not as effective, they recommended that students with learning disabilities take an active part in thinking about and examining the rationale, value, impact, use, and applicability of the strategies.

The authors discussed how their findings may relate to writing instruction practices for students with learning disabilities. They noted that, given findings of this study and previous ones, over-reliance on the more incidental and informal, process-based methods of writing instruction for students with learning disabilities is a cause for concern; yet, when combined with more explicit strategies and direct instruction, they may comprise the necessary components of an effective writing program.

In order to apply results of the study, adaptations for the general education setting were offered to help increase students' appreciation of the usefulness of goal setting and brainstorming. Researchers also recommended instructional applications for pre-writing organization of ideas; modified feedback procedures, such as checklists, peer evaluation, and rubrics; as well as self-monitoring by self-graphing the number of steps completed and completing quality self-rating charts. This study demonstrated that the writing performance of students with learning disabilities can be increased by strategy

instruction, and that writing difficulties of those students are due, at least in part, by difficulties with planning.

A study conducted by Graham, Harris, and Mason (2005) tested the effectiveness of the Self-Regulated Strategy Development (SRSD) instructional model to foster the development of improved writing performance, knowledge of writing, and self-efficacy in struggling third grade writers (Graham & Harris, 1993; Harris & Graham, 1996). The SRSD model teaches students strategies for completing academic assignments, as well as the specific knowledge and self-regulatory procedures needed for the tasks; SRSD also addresses aspects of motivation, such as self-efficacy. The authors' stated purposes were to determine whether the SRSD intervention improved writing performance and to examine whether social support through peer-assistance would enhance the SRSD-instructed students' performance. These two groups and a control group worked on story writing and persuasive writing. Writing instruction for the control group was based on the Writers' Workshop approach developed by Calkins (1986) and Graves (1983), the most popular method of writing instruction in elementary school in the U.S. at the time (Graham, Harris, & Mason, 2005). Writer's Workshop involves instruction for teaching writing that includes routines for planning, drafting, editing, revising, and publishing work, sharing with peers, conferencing, and mini-lessons provided by teachers based on students' needs.

The participants involved in the study were 72 third graders in urban schools in the Washington, D.C. area who were predetermined to be at risk in writing based on standardized test results, teacher reports that they were experiencing difficulties learning to write, and writing achievement scores in the bottom quartile in their classrooms. The

ethnic makeup in the study was similar to the community at large: English was the primary language of 86% of the participants, a higher number were boys (44) than girls (28), 75% were Black 67% received free and reduced price lunch, and 20 students were identified as having a disability (12 with learning disability, four with speech/language impairment, two with AD/HD, and two with emotional disturbance). Instructors provided pairs of students in the two treatment conditions with instruction three times per week for 20 minutes a session. Testing and instruction were carried out during a 5-month period.

Participants were divided into three groups: a control group exposed to Writers' Workshop only; an SRSD only group; and an SRSD plus peer support group. The two treatments groups were provided with genre-specific strategies encompassed in a general planning strategy, in which information about the genres was embedded, and self-regulatory strategies for managing the writing task. The planning strategy is a three-step procedure, represented by the acronym POW. The POW story writing strategy is divided into three steps: Pick my ideas; Organize my notes; Write and say more. The Organize step is broken down into a methodology for generating writing ideas and putting them into a plan, represented by WWW, What=2, How=2: Who are the main characters?; When does the story take place?; Where does the story take place?; What do the main characters want to do?; What happens when the main characters try to do it?; How does the story end?; and How do the main characters feel?. Students were also taught to apply the POW strategy to persuasive writing. The strategy for the second step (O for Organize) for generating writing content relevant to the persuasive genre was represented by TREE: Tell what you believe (State your topic sentence.); Give three or more reasons (Why do I believe this?); Examine each reason (Will my reader buy it?); End it (Wrap it up right).

During the first phase of instruction, students were assisted in developing their background knowledge and skills needed to apply the writing strategies. The second phase of instruction included assessment for retention of the strategies and further practice. Self-monitoring routines were introduced. Instructors implemented a goal setting treatment for inclusion of all the sub-parts specified in the writing strategy. They were given additional practice with identifying genre-specific component parts in sample texts. In the third phase, instructors modeled how to plan and write while involving the students; and also modeled the use of graphic organizers, self-talk, and self-statements. Participants recorded self-statements and graphed their results.

The final phase involved a collaborative writing experience. Students were given the opportunity to apply what they had learned in an independent practice assignment. They were not required to use props (e.g., charts with strategy steps, graphic organizers, self-statement charts) and could not receive assistance from an instructor. Although both treatment groups received identical instruction, the SRSD plus peer support group were given directions to engage in a variety of additional strategies, as follows: students acted as partners in a number of ways in different phases of instruction, engaging in discussion of how they could apply these strategies in other learning situations, record this information, and participating in follow-up discussions and commitments to assist their partners with transferring the strategies and setting goals for using them.

The control group's Writers' Workshop style instruction, provided by their classroom teachers was presented in single-session mini-lessons, with brief modeling and application of the content from the same two story and persuasive writing genres.

The researchers gave pretests before students were given instruction in four genres, including both the genres in which they were to receive instruction as well as two others for which they intended to measure generalization and transfer effects of strategies from the instructed genres: personal narrative (closer to story writing) and informative writing (closer to persuasive writing). The groups were then assessed in posttests in all four genres after story and persuasive writing instruction. In addition, maintenance of students' story writing skills was measured. Several measures, regardless of genre, were collected for each paper, including composing time, length, and compositional quality. Pretest and posttest questions were posed in a writing survey to assess knowledge of good writing and knowledge of the two instructed genres. Pretest and posttest measures were also employed in a self-efficacy survey, measuring students' appraisal of their efficacy for planning and writing a paper on a Likert-type scale, specifically assessing their confidence in their general ability to plan/write a paper and their confidence in applying two important planning sub-processes: generating and organizing ideas.

The researchers found that SRSD instructed students in both groups spent more time composing than the control group. The SRSD plus peer support group also spent more time composing in the uninstructed genre (generalization) of writing informative papers. In terms of the length of their stories and persuasive essays, both groups of the SRSD instructed students wrote longer pieces than those in the control group. These effects were generalized to the uninstructed informative writing genre (except in the maintenance measure for stories) in both SRSD groups. SRSD students' stories and persuasive essays included more basic elements comprised in their genre (as typically

defined) than did the control groups'. The SRSD plus peer support group was the only one to evidence generalization to an uninstructed genre: story parts in narratives.

Quality measures revealed significant results in both treatment groups. Students in both SRSD conditions composed qualitatively better stories and persuasive writing than the control group. In both treatment groups, writing in the instructed genres improved approximately two points at posttest on the school district's 8-point scale, placing their writing in the average range for third graders. The effect sizes (ES) were, as follows: for stories, ES=2.42 for SRSD only, ES=1.90 for SRSD plus peer support; for persuasive essays, ES=2.80 for SRSD only, ES=2.14 for SRSD plus peer support. The effects of SRSD generalized to the quality of informative papers.

The study's post instruction results for writing knowledge revealed that, as predicted, students in treatment groups were more likely than at pretest to describe good writing in terms of substantive writing processes (e.g., planning, revising, content generation, etc.) than production procedures (e.g., spelling, handwriting, capitalization, neatness, etc.). Measures at pre- and post-test for self-efficacy were slightly above the mean, such that students generally had positive feelings about their writing skills both before and after treatment. No change was found in students' self-efficacy, contrary to what had been predicted. In their discussion, the authors guessed that the reason behind this finding could be that struggling young students may not be very good judges of their perceived capabilities compared to their actual performance in writing. As in older struggling writers, the subjects and control group may overestimate their abilities and be resistant to altering the perception (Alvarez & Adelman, 1986). The study did provide evidence for SRSD instruction increasing writing persistence however, which is

important to note, as struggling writers often have difficulty in maintaining effort

(Graham, 1990; Thomas, et al, 1987).

The SRSD and SRSD plus peer support groups both benefited and gained similar

advantages from their instruction. The effects of the peer component in the SRSD plus

peer support group were advantageous in two instances: peer support enhanced transfer

of the instruction to the two uninstructed genres, and the students in the peer support

condition were able to identify more substantive aspects of planning, presumably due to

the additional opportunities for discussion of how to apply them. Additionally, the

students in the peer support group were universally positive about the peer component of

their instruction.

Graham, Harris, and Mason (2005) concluded that SRSD can be effectively

taught to elementary-aged students in low-income urban areas, that the writing

performance and knowledge of struggling writers can be improved substantially with this

instruction, including specific strategies for planning and writing combined with

knowledge about good writing and self-regulatory procedures for using the strategies, and

that peers can help others to generalize and maintain academic gains in groups of young

children. As students in the control group did not improve their writing over the five

month period, the authors suggested that additional research is needed to examine the

effectiveness of the Writer's Workshop model of instruction for struggling young writers,

as it may not be powerful enough to provide students with the tools they need for success.

Ferretti, Lewis, and Andrews-Weckerly (2009) investigated the effect of goals on

the structure of students' argumentative writing strategies. The authors hypothesized that

providing clear direction for persuasive compositions to less-skilled writers through the

provision of explicit sub-goals, and directing those students to focus on them, would increase the students' performance, motivate their persistence, enhance their self-efficacy, and result in their writing more convincing arguments. They studied the ways in which fourth and sixth grade students utilized goal-directed, self-regulatory procedures in the problem-solving process at the heart of argumentative writing, comparing the effects of a general goal to persuade to that of an elaborated goal that established genre-specific sub-goals in argumentative writing.

An earlier study conducted by Ferretti, MacArthur, and Dowdy (2000) had established that writing is a goal-directed activity and that genre-specific sub-goals can improve the quality of students' essays. The 2009 study investigated how genre-specific sub-goals impacted students' argumentation structures and strategies compared with a general goal to persuade. The researchers expected to find that elaborated goals would cause students to present more reasons for their viewpoints and consider more alternative standpoints, so that the structure of the arguments would be deeper and their explanations more detailed. In addition, they expected that the fourth grade subjects and those with learning disabilities would compose less well-developed arguments than sixth graders and typically developing peers.

The participants were 96 students from four schools in an urban/suburban school district in the mid-Atlantic region. Students were equally divided between 4th and 6th graders, half of whom in each grade had diagnosed learning disabilities (LDs). All of the students with LD had scores at least one standard deviation below the mean on a standardized reading or writing test.

The control group was given the assignment to write a letter to their teacher to address whether they should be given more homework. Students in the elaborated goal group were given explicit sub-goals based on the elements of argumentative discourse. All students were given 45 minutes to complete their letters. The letters were then scored, using a scoring guide derived from argumentation theory, for overall persuasiveness. Papers were typed and corrected for spelling prior to scoring to mitigate the effects of writing convention errors on raters. Raters classified seven kinds of argument strategies used by students, using a coding system developed by the researchers.

Results and analyses were reported based on demographics, the impacts of study conditions, disability status, and grade level on the overall persuasiveness of students' essays. The students given elaborated goals wrote more persuasively overall than those in the general goal conditions; students without disabilities wrote more persuasively than those with learning disabilities; and sixth graders' essays were rated more highly for persuasiveness than those of fourth graders. Although typically developing students were rated as more proficient, the average writing of most participants was below the state standard. No significant interactions or main effects for persuasiveness, structural elements, or argumentation strategies were found for the one-quarter of LD students who had been found to have full-scale IQs below 80.

Given the study's purpose of determining whether an elaborated goal would affect the structure and kinds of strategies used in student's argumentative essays, additional interesting findings were reported in the discussion section. An elaborated goal produced greater consideration of alternative viewpoints, but did not result in more detailed justifications or well-developed arguments for them. It was surmised that students may

have been reluctant to strengthen the alternative viewpoints for fear of weakening their primary arguments.

The effects of the goal conditions on the persuasiveness of students' essays did not depend on grade level or disability status, suggesting that, given the genre-specific goals, all students in the study were able to more effectively apply their knowledge of the persuasive essay and meet the challenges of constructing written arguments. The persuasiveness of the students' writing, however, was only modestly affected by the elaborated goals, with an average of 0.5 points increase on the 7-point rating scale.

The arguments generated in the elaborated goal condition were relatively shallow, not well developed, and largely unresponsive to alternative standpoints. Given that the strategies taught in the study focused on increasing production of argumentative discourse, the researchers recommended further instruction in argumentative writing targeting the development of background knowledge that would inform writers' need to judge the relevance and acceptability of their arguments.

The last study reviewed, by Harris et al. (2012), examined the use of Self-Regulated Strategy Development (SRSD) on story and opinion essay writing for students with and without behavioral challenges in grades 2 and 3. The research team worked with teachers in schools in which there existed a 3-tiered intervention model and an indicated need for professional development in writing, as well as a desire to improve students' writing abilities. The team helped general education teachers to implement the evidence-based writing intervention at the primary (Tier 1) level, which emphasizes preventing academic and behavioral problems through improved instruction and behavioral support in general education settings.

The questions investigated in this study addressed whether differential effects would be found for SRSD instruction for story and opinion writing for students with and without behavioral challenges. The study examined the integrity of instructional implementation, social validity, students engagement, whether cognitive ability predicted writing gains, and teacher estimates of behavioral improvement following treatment.

The randomized, control trial study addressed both story writing (narrative) and opinion essay writing (expository). In each condition, general education teachers taught the students in their class genre-specific writing strategies with SRSD instruction. The story-writing group was the control group for the opinion-writing group and vice versa. Seven research questions were addressed: Would SRSD improve the writing of students with behavioral challenges and their matched peers? Could general education teachers effectively implement SRSD? Would teachers and students endorse SRSD's social validity? Is SRSD differentially effective for students with and without behavioral challenges? Would SRSD have different effects on task engagement of both groups? Would students with challenging behaviors show an overall decrease in problem behaviors after SRSD instruction? Would students' cognitive ability moderate intervention outcomes?

Participants were from three inclusive elementary schools in a rural Tennessee school district that had a prevention program with academic, behavioral, and social components. Participants included 20 second and third grade teachers who had a mean 10.57 years of teaching experience. Teachers participated in professional development at their school sites to learn how to implement SRSD. The study also included 56 second and third grade students, none of whom received special education services (as the focus

was on students in the primary prevention program), evenly divided between students with and without moderate or high-risk behavioral challenges, as identified through the Student Risk Screening Scale (SRSS) (Drummond, 1994). The students with behavioral challenges did not exhibit behaviors serious enough to warrant supports beyond Tier 1 measures. Half of the students in the study were given instruction in narrative writing; half of them were assigned to the opinion-writing group.

Teachers conducted a maximum of 24 SRSD-based instructional sessions with their students over eight weeks. All students received instruction in the general planning strategy: POW (Pick my idea, Organize my notes, Write and say more). Students in the opinion writing group were a taught a genre-specific strategy for the note-taking phase: TREE (Topic sentence – Tell what you believe; Reasons, three or more – Why do I believe this? Will my readers believe this?; Ending – Wrap it up right; and Examine – Do I have all my parts?). The writers in the narratives group were given a genre-specific strategy, too: WWW, What = 2, How = 2 (Who is the main character or characters? When does the story happen? Where does the story take place? What does the main character do or want to do? What do the other characters do? How does the main character feel? How do the other characters feel?). Students not only were taught these strategies and developed the background knowledge and vocabulary needed to apply them. They also examined models in which the strategies had been employed and reviewed the steps and characteristics of the strategies. Students discussed the benefits of utilizing the strategies and were asked to commit to using them in partnership with their teachers and peers.

Teachers modeled using the SRSD strategies with graphic organizers and self-instructions for goal-setting, problem-solving, self-reinforcement, and coping, encouraging students to do the same. Students learned a self-monitoring procedure, tracking their goals for writing on a sheet. Students memorized the strategies with the corresponding mnemonics so they would be able to automatically recall them when working independently. Given ongoing support, the students were then able to independently write their stories and essays to criteria, including the use of self-regulation strategies. Teachers continued to promote skill maintenance.

Pre- and post-instructional measures were administered to the two groups. In addition to assessing the effectiveness of the writing strategies, researchers also collected data on academic engagement time during writing production based on the two prompts. The story-writing group was asked to write a story based on a line drawing. The opinion-writing group was given a question to respond to, asking their opinion on school or home issues. Both groups were encouraged to use planning time and an additional 20 minutes or more to write their assigned pieces. Scoring did not assess for students' correct use of writing conventions. Number and quality of elements were scored based a holistic scoring system. Academic engagement was measured in terms of students writing in response to the prompts, time spent thinking about the prompts (with no more than 5 seconds looking away from their papers), or asking a question about the assignment.

The problem behavior subscale of the Social Skills Rating System – Teacher Version (SSRS-T) was used to measure teachers' views of their students' behavioral performance before and after the intervention, providing information on the frequency of student behavior in the domains of internalizing, externalizing, and hyperactivity

(Gresham &Elliott, 1990). Students' perspectives of the social validity of the intervention were measured at the end of treatment with a rating scale that examined views of treatment acceptability by means of the Children's Intervention Rating Profile (CIRP) (Witt & Elliott, 1985). Teachers also completed an Intervention Rating Profile (IRP-15) to examine their perceptions of treatment acceptability (Witt & Elliott, 1985).

Researchers found that there were no significant differences on the writing measures or the social validity measures according to results from initial analyses at pre-intervention. They found that there was a significant difference in overall behavior patterns and that students in the behavioral-challenges group had higher levels of problem behaviors as rated by teachers.

As researchers had predicted, whole-class writing instruction in SRSD improved the overall writing performance of students both with and without challenging behaviors. The group instructed in story writing evidenced greater improvements in number and quality of story elements and story quality than did the stories written by the opinion-writing group. Likewise, the group instructed in opinion writing wrote opinion essays with more transition words, opinion elements, and better overall quality than the opinion essays of the story-writing group. As a Tier 1, whole-class primary prevention program, SRSD was an effective treatment for improving writing. Effect sizes ranged .51 for story writing to 1.15 for opinion writing quality. While not a focus of the interventions, writing length was predicted to increase; yet the number of words written was not affected in either behavioral grouping. SRSD instruction did promote more complete and qualitatively better papers, however.

Questions of treatment integrity and social validity outcomes were both positive. Researchers concluded that their positive findings should promote more widespread adoption of SRSD in multi-tiered intervention models.

While researchers had anticipated smaller gains would be made following SRSD instruction by students with challenging behaviors than those without them, this was only true to the extent that students with challenging behaviors made smaller gains in story writing. Similarly, students with challenging behaviors given instruction in opinion writing used fewer transition words than did those without challenging behaviors in their opinion essays.

Given that students with challenging behaviors might be expected to make the greatest growth in engagement time and that SRSD contains multiple supports for engagement, expectations that students with challenging behaviors would experience a greater increase in engagement time were not supported. Neither writing task nor student group was significantly influenced by student engagement components of the SRSD treatment. Researcher suggested that further study may be needed to look more specifically at the effects of different school-wide behavior support system types and at improving ways in which on-task behavior measurement is operationalized. Based on pre-treatment teacher ratings and post-treatment outcome measures, the authors did not find an overall decrease in problem behaviors across the school day after SRSD instruction in either genre.

Results only partially supported predictions of writing gains for students with greater overall cognitive ability. In two cases, a statistically significant amount of variance was found. Students instructed in story writing with challenging behavior and

greater cognitive ability wrote longer stories. Students instructed in opinion writing with greater ability and without behavioral challenges included more and higher quality genre-specific elements in their essays. These limited finding suggest that students in the average range of ability will gain writing skills from SRSD instruction.

Researchers suggested that additional study would be helpful to determine how well SRSD as a Tier 1 intervention may be generalized to different contexts. In this study, both students with and without challenging behaviors benefited from the instruction in both story writing and opinion writing, but greater gains were made with students without behavior challenges on some measures. Teachers and students involved in the study found SRSD to be socially valid. Teachers were found to be able to implement SRSD instruction with fidelity. Cognitive ability played only a minor role in the gains made by students in both groups.

In summary, writing skills in elementary school students are generally understood to be below the levels of proficiency required for secondary work and college preparation. Not only will elementary students in all grades be expected to write across curricula in the CCSS as a means for processing learning and comprehension of texts, but in so doing they will need to apply skills in spelling, handwriting, typing, sentence construction, planning, and revising. Students will also be assessed in their mastery of genre-specific writing, including the composition of persuasive, narrative, and informative texts. Students with executive functioning weaknesses or challenging behaviors, such as disengagement, disruptiveness, or other symptoms manifesting anxiety, also often have learning challenges in reading, writing, or math. Many elementary students, with or without behavioral challenges, have significant writing

challenges and negative attitudes toward writing. Therefore, writing interventions and supports must be available to teachers to support the improvement of their students' academic skills. High quality, research-based writing instruction is ever more important in this era of major educational reform.

Based on the review of the literature, writing requires knowledge of writing, and strategies for pre-planning, text production, drafting, feedback, publishing, and self-regulation. Students with writing challenges need specific targeted instruction to be taught using direct, explicit means through modeling and extensive scaffolded practice that leads to independent production and publishing. In order to address the needs of today's 3 – 5 grade students, these activities must be linked to the critical thinking skills defined in the Common Core State Standards in English Language Arts.

TEACHERS' TOOLKIT: WRITING INSTRUCTION IN THE CCSS FOR STRUGGLING WRITERS

BY ELIZABETH CONLON

Table of Contents

Introduction to Teachers' Toolkit:

Students are required to learn the skills for college and career readiness and are expected to understand the importance of writing as critical to preparing for higher education and roles in the work place. Students need to learn to use writing to clearly communicate their ideas, demonstrate their understanding of information in content areas, and write about actual and imagined experiences and events. At every stage of development, beginning with early elementary years, students will learn to use writing to address a variety of audiences and accomplish a variety of tasks. The College and Career Readiness standards provide broad guidelines for the academic proficiencies children should attain.

Public school teachers have long been expected to differentiate instruction in their classrooms, including for those students with disabilities. Research has shown that the more accessible learning is to students, at no matter what levels of ability and skill, the more engaged, cooperative, and motivated they are likely to be. The increasing sense of self-efficacy that students gain through exposure to rich content delivered with targeted teaching strategies applied during formative years will help to develop independent, curious learners.

The number of students with disabilities being educated in general education classrooms is now greater than ever and growing due to shifts in special education inclusion practices. A vast number of public school teachers have spent a significant portion of their teaching careers implementing state standards, which have now largely been replaced by a new set of common standards. Teachers in both general education and special education classrooms across the United States are currently facing the challenges

of becoming familiar with and implementing the recently adopted Common Core State

Standards (National Governor's Association, 2010).

This teachers' toolkit is offered as support for today's hardworking, dedicated

elementary school teachers of students in grades 3 – 5, particularly those who struggle

with writing tasks in the general education classroom. This broad variety of tools is

intended to range from easy to use lesson supplements, to mini-lessons, to multi-lesson

instructional strategies.

All students should be taught how to become writers. Those students with

disabilities will need more accommodation and specialized materials to succeed. These

tools are not meant to replace a well-designed writing curriculum. An effective writing

program should include daily writing instruction in which students are taught the

essential qualities of good writing and are given consistent opportunities to hone their

craft. However, with planning by trained teachers, the materials in this toolkit will serve

as handy, self-explanatory, and useful supplements to a comprehensive writing program.

While the focus of this toolkit is to offer support for struggling writers, these

strategies and instructional tools will also be useful for typically developing students,

including English Language Learners. The materials can be used to scaffold learning for

individuals with special needs or for providing whole-class instruction. Differing degrees

of support are available within the toolkit as appropriate to the task and users.

The collection of instructional tools is organized around the College and Career

Readiness Anchor Standards for Writing, beginning in Part I, with the K – 5 Common

Core State Standards (CCSS) in Writing. As writing occurs across the curriculum,

additional documents to encourage educators reflect upon both old and new practices are

included, such as the Common Core "Shifts" in English Language Arts (ELA) and

Literacy in History/Social Studies, Science, and Technical Subjects, which describes six

key shifts required for curricular materials and classroom instruction. To provide a more

complete picture of the primary writing genres emphasized in the CCSS, there is also a

document entitled Definitions of the Standard's Three Text Types. As foundational skills

such as written conventions and grammar are essential components of written language, a

document describing the CCSS Language standards by grade is also included.

Students continuously work on learning the foundational skills of production,

including working in digital formats, and will use texts to connect the standards across

disciplines during their school years. Parts II through V contain instructional tools that

cover the broad sections of the College and Career Readiness Standards: Text Types and

Purposes (standards 1 – 3), Production and Distribution of Writing (standards 4 – 6),

Research to Build and Present Knowledge (standards 7 – 9), and Range of Writing

(standard 10). The instructional tools ranges from one-page, simple graphic organizers

and handouts to multi-step, elaborated collections of explicit strategies for a particular

purpose, such as story writing. Multiple choices for many of the writing skills have been

included to meet the needs of different teachers and different grade levels. These

materials were gleaned from books, websites, and curricular text supplemental resources.

The bulk of these materials were validated through a solid research base and

developed by well-known education experts from varied backgrounds. Favorite authors

whose work is gratefully acknowledged include educational consultant Anita Archer

(1989) (Skills for School Success), researchers Steven Graham and Katherine Harris,

(Self-Regulated Strategy Development) (Harris, et al, 1996; 2008), staff development

expert Maureen Auman (2008) (<u>Step Up to Writing</u>), speech/language pathologists Dana E. Gooden-Schroeder and Sheila F. Hansen (2003; 2004; 2008) (<u>Pathways for Learning</u> books series)**,** veteran educator Katherine McKnight (2013) (<u>The Elementary Teacher's Big Book of Graphic Organizers Grades K-5</u>), numerous evidence-based practices from the exceptional children's literature (The Iris Center at Vanderbilt University, 2014), and the curriculum developers at Houghton Mifflin Reading's Eduplace.com (2013).

  In Part II, Text Types and Purposes, teachers will find three subsections, one for each of the primary text types emphasized in the Common Core: writing arguments, often called persuasive writing; informational/explanatory writing, whose aim is to present factual information and help the reader understand why or how; and narrative writing, which conveys experience, either real or imaginary. There are a number of instructional materials from the explicit, elaborated SRSD strategies included here and elsewhere in the toolkit. According to Luke (2010),"Self-regulated strategy development is a method designed to help students learn and use–and eventually adopt as their own–the strategies used by skilled writers. SRSD is more than simply strategy instruction. It encourages students to monitor, evaluate, and revise their writing–promoting self-regulation skills, increasing content knowledge, and improving motivation (p. 6)." The SRSD strategies, known by acronyms such as POW + TREE, an argument/opinion pieces writing strategy for both younger and older students, include basic materials for both educators and students. The SRSD strategies can be integrated into writing units that fully cover writing genres and supplement others through a self-monitoring focus. Additionally, there are handouts and organizers for teachers to help students understand and write six expository text types.

In Part III, the focus is on the Production and Distribution of Writing, covering a broad range of needs, from the writing process and planning, editing and revising, spelling, and sentence and paragraph writing. As students must learn to incorporate standard language conventions in their written text, there are handouts for rules and writing conventions, strategies and checklists for correcting and improving drafts, and elaborated strategies for planning, diagnosing, and publishing polished written pieces. Not included in this section are curricula or tools for teaching handwriting and word processing, yet these basic skills are undoubtedly essential in any complete writing program from an early age, and it is of particular importance that struggling writers are given fine motor and handwriting supports where needed. It is suggested that teachers refer to the UDL Toolkits contained in the Resources section in Part VI for tools to support the use of learning and producing written work through digital formats.

The CCSS place an emphasis on using evidence from texts and multiple sources to support claims and present analyses. Gathering information and documenting investigation are a critical competency. Part IV focuses on supports for Research Writing. Tools for activating students' thinking about learning, note-taking, and self-monitoring for research projects are offered. Besides simple, one-page graphic organizers for tracking references and a checklist for note-taking, multi-step strategies that provide maximum support for organizing a research project for learners with executive functioning difficulties are available.

The Range of Writing standards refers to writing across the curriculum, including written assessment strategies for students, so that writing and writing instruction are integrated throughout content area learning. Learners read complex texts, document their

findings, and engage in focused discussion. Part V includes tools for processing what students read, including a Reading Response Rubric from Buckner's <u>Notebook Connections: Strategies for the Reader's Notebook</u> (2009). This section has a number of writing "frames," a highly supportive avenue for including even the most challenged writers in all types of writing assignments. There are also "frames," graphic organizers, and outlines for writing in the content areas of Math, History and Social Studies, and Science. This section additionally provides multiple tools for vocabulary development, including strategies and organizers to cope with domain-specific vocabulary words found in text. Teachers will find tools for students to produce writing for varied purposes, including test-taking strategies for short answer tests, free response-style items, and story-writing assessments. This section concludes with numerous rubrics and scoring guides for multiple written genres at different levels of sophistication.

Finally, the Resources section, Part VI, provides additional supports for instructional planning for students with writing difficulties. Digital technology enhances writing and Universal Design for Learning (UDL), an approach and philosophy embraced in Common Core for special education, is explained. Two UDL recommended toolkits provide digital supports for 21st Century learning (CAST, 2011). A selection describing the essential components of SRSD instruction helps to orient teachers to it's teaching and learning philosophy in concrete stages of instruction. Adaptations for struggling writers are listed in an extensive table. Lesson planning supports for instructors includes a basic framework and templates. Given that struggling writers often have difficulty with executive functioning, this section contains self-monitoring strategies, both simple and elaborated, for teachers to select for students' use as they make plans for creating

successful projects, track their use of newly-acquired strategies, perform self-assessment, and work within cooperative peer groupings. To address the need for assessing students' written productivity, a needs assessment protocol is provided. Finally, Webb's Depth of Knowledge chart (2005) and Hess' Cognitive Rigor Matrix & Curricular Examples (2009) provide the bridge from Bloom's Taxonomy to an updated methodology for conceptualizing a hierarchy of thinking and demonstrating learning in the age of the Common Core.