Contemporary Educational Psychology 40 (2015) 5–16

Contents lists available at ScienceDirect

Contemporary Educational Psychology

journal homepage: www.elsevier.com/locate/cedpsych

Practice-based professional development and Self-Regulated Strategy Development for Tier 2, at-risk writers in second grade

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ARTICLE INFO

Article history:
Available online 22 February 2014

Keywords:
Professional development
Writing
Tier 2
Self-regulated strategies development
Practice based professional development

ABSTRACT

In this randomized controlled study, we investigated implementation of Self-Regulated Strategy Development (SRSD) in story writing by 11 second grade teachers who first collaborated in practice-based professional development in SRSD. Students at-risk for failure in writing were randomly assigned to treatment and control conditions in each teacher's classroom. Teachers implemented SRSD with small groups of students at-risk for failure in writing (referred to as Tier 2 intervention in the Response to Intervention, or RTI, model) in their classrooms; control students at-risk in writing received regular classroom instruction from their teachers. Integrity of strategies instruction and social validity were assessed among the participating teachers. Student outcomes assessed included inclusion of genre elements and story quality, generalization to personal narrative, and teacher perceptions of intrinsic motivation and effort for writing. Teachers implemented strategies instruction with high integrity; social validity was positive. Significant effects were found for inclusion of genre elements and story quality at both posttest and maintenance; effect sizes were large (.89–1.65). Intervention also resulted in significant generalization to personal narrative (effect sizes were .98 for elements and .88 for quality). Teachers reported significantly higher perceptions of both intrinsic motivation and effort (effect sizes were 1.09 and 1.07, respectively). Limitations and directions for future research are discussed.

1. Introduction

Education reform has become a worldwide priority, as researchers and educators seek for more effective ways to teach all students, prevent failure, and meet the many different needs of diverse students in a single classroom. Despite this reform movement, writing development and instruction have long taken a back seat to reading, and more recently to STEM (science, technology, engineering, and mathematics), in terms of a host of inter-related and important factors, including research funding, professional development, time allocated in schools, curriculum development, educational reform, and national attention (Fitzgerald, 2013; Harris & Graham, 2013; Harris, Graham, Brindle, & Sandmel, 2009; Hooper et al., 2013). Nearly a decade ago, the National Commission on Writing reported that, of the three 'Rs', writing had become the most neglected in classrooms (National Commission on Writing in America's Schools and Colleges, 2004).

This neglect of writing is surprising, given its importance. Students who struggle significantly with writing face a terrible disadvantage in today's world. By the upper elementary grades, writing becomes a critical tool both for learning and for showing what you know. Writing is vital to gathering, refining, extending, preserving, and transmitting information and understandings; making ideas readily available for consideration, evaluation and future discourse; fostering the examination of unexamined assumptions and creating cognitive disequilibrium that spurs learning; and promoting personal development (Graham, 2006; Harris et al., 2009; Prior, 2006). When writing abilities are not well developed, students cannot draw on the power of writing to support and extend learning and development, and adults with inadequate writing skills face significant barriers in further education and employment.

Data from the National Assessment of Educational Progress (NAEP) is disturbing. In 2011, only 27% of 8th and 12th grade students scored at or above the "proficient" level on the writing test, while 20% of 8th graders and 21% of 12th graders scored "below basic," indicating they are not meeting the minimum standard for their grade level (National Center for Education Statistics, 2012). The high school class of 2012 obtained an average score of

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http://dx.doi.org/10.1016/j.cedpsych.2014.02.003
0361-476X/

488 on the writing portion of the SAT, leading the College Board (2012) to conclude that 43% of those who took the SAT are not ready for college level work. In fact, the large majority of colleges and universities today offer remedial writing support to incoming students (Harris et al., 2009). Businesses spend 3.1 billion dollars annually on writing remediation alone (National Commission on Writing, 2004).

The advent of the *Common Core State Standards* (CCSS, 2010), an effort led by the National Governors Association Center for Best Practices and the Council of Chief State Schools Officers, has helped bring greater attention to writing. The goal of this effort is to transform the process of schooling by providing teachers and schools with a blue print of what students need to master to become college and career ready. A central component of CCSS is a set of language arts standards for becoming proficient and skilled readers and writers.

Despite this attention, and further adding to this picture, research indicates the majority of teachers report inadequate pre- and in-service preparation in writing instruction and fail to implement evidence-based practices (Applebee & Langer, 2011; Cutler & Graham, 2008; Graham, Harris, MacArthur, & Fink, 2003; Gilbert & Graham, 2010). Recent research indicates that elementary school teachers report being significantly less prepared to teach writing than to teach reading, math, and science; many teachers report low self-efficacy for teaching writing (Brindle, 2013). Further, Brindle found that teachers reported doing little to no writing outside of their jobs and that teachers' preparation for and attitudes towards teaching writing accounted for significant amounts of variance in the amount of time teachers reported they spent on writing instruction and their students spent writing in school and at home. Researchers, therefore, must take into account teacher preparation in writing instruction when designing studies for professional development in writing.

How do we begin to address the needs of teachers and students in writing, using the available research base? In this study, we applied the existing theoretical and research base on effective writing instruction and effective professional development to address the needs of second grade students at-risk for writing failure and the writing professional development needs of their second grade teachers.

1.1. Preventing failure in writing

Preventive intervention is an approach to educational reform with both theoretical and research support. School based preventive interventions are critical components of school change and may be one of the most important vehicles for helping all students achieve (Buffum, Mattos, & Weber, 2009, 2010; Domitrovich et al., 2008). One preventive approach rapidly gaining both research and school support is the multi-tiered, Response to Intervention (RTI) model (Brown-Chidsey & Steege, 2010; Buffum et al., 2009, 2010; Fuchs & Fuchs, 2006; Johnston, 2010). One of the more prominent education reforms of recent years, RTI requires the provision of early intervention to all students at risk for school failure (Fuchs & Fuchs, 2006; Kratochwill, Volpiansky, Clements, & Ball, 2007). The Individuals with Disabilities Education Improvement Act (IDEA, P.L. 108-446, 2004) permits special education funding to be used for early intervention, thus providing support for RTI.

1.1.1. RTI

In a three-tiered RTI approach, Tier 1 (primary level) emphasizes improved instruction in general education, using evidence-based practices to prevent academic problems from occurring. Students who are not responding adequately to Tier 1 interventions receive Tier 2 (secondary level) interventions either in or outside of the classroom. At Tier 2, interventions are typically delivered in small groups using evidence-based practices targeted specifically to students' academic needs (Cook, Smith, & Tankersley, 2012). Similarly, students who are unresponsive to Tier 2 supports receive highly intensive and individualized Tier 3 (tertiary level) interventions. Identification of a disability and provision of special education services, if appropriate, typically occur after or during Tier 3 intervention.

While all tiers are critical, some have argued that secondary prevention, or Tier 2, is particularly important because this is the "first line of defense" for students who are at-risk for academic failure (Friedman, 2010). Concerns have been raised, however, that much of the research regarding Tier 2 involves interventions conducted by tutors, research assistants, or special education teachers, with little research involving general education teachers (Brown-Chidsey & Steege, 2010; Buffum et al., 2009; Johnston, 2010; Kratochwill et al., 2007; Lembke, McMaster, & Stecker, 2010). The ability of general education teachers to implement effective Tier 2 intervention is important to investigate, as issues of resources, cost, and scheduling make the classroom teacher one important resource for providing Tier 2 intervention.

The large majority of research on Tier 2 intervention, however, has addressed reading; no studies were found addressing Tier 2 intervention for composing in specific genres (see Berninger & Abbott, 2003; Hooper et al., 2013, for Tier 2 interventions in basic writing skills). Thus, classroom teacher implemented small group, or Tier 2, intervention was investigated in this study. The intervention selected was one with a large research base that has been deemed an evidence based practice by independent groups, Self-Regulated Strategy Development (SRSD) in writing (cf. Baker, Chard, Ketterlin-Geller, Apichatabutra, & Doabler, 2009; Graham & Perin, 2007; National Center for Response to Intervention, 2011; What Works Clearinghouse, 2012).

1.2. Self-Regulated Strategy Development (SRSD)

Skilled writing is complex, requiring extensive self-regulation of a flexible, goal-directed, problem-solving activity. Knowledge about writing (including genre knowledge) and strategies for planning and text production are also critical (Bereiter & Scardamalia, 1987; Fitzgerald, 2013; Harris & Graham, 2009). SRSD was explicitly designed to address the complex nature of writing and the difficulties most students experience learning to write. Multiple theories and lines of research were, and continue to be, drawn onto develop an intervention responsive to the affective, cognitive, and behavioral demands writing makes on all children (for more detailed discussions of theoretical bases, see Harris & Graham, 2009, 2013). Knowledge, strategies, self-regulation, motivation, and attitudes about writing are all explicitly targeted. Briefly described, SRSD instruction includes explicit, interactive learning of strategies for genre specific and general writing, the knowledge (including vocabulary and background knowledge) needed to use these strategies, and strategies for self-regulating strategy use and writing behavior throughout the writing process (e.g., goal setting, self-assessment, self-instructions, and self-reinforcement).

Self-efficacy, attributions, and motivation are considered in terms of both goals of instruction and differentiating instruction to meet differing needs among students, as are students' writing characteristics. SRSD instruction takes places across six flexible, recursive, and highly interactive stages, with gradual release of responsibility for writing to students (Fitzgerald, 2013; Harris, Graham, Mason, & Friedlander, 2008; Harris et al., 2009; Sandmel et al., 2009). Procedures for promoting maintenance and generalization are integrated throughout the stages of instruction in the SRSD model; both maintenance (sometimes requiring booster sessions) and generalization to near genres have typically been found (Harris et al., 2009).