

ELEMENTARY AND SPECIAL EDUCATION TEACHER PREPARATION
FOR WRITING INSTRUCTION

By

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A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

Special Education – Doctor of Philosophy

2023

ABSTRACT

Writing is one of the most important forms of communication we have, yet many find it to also be one of the most challenging tasks to do, and in the case of educators, to teach. Becoming a proficient writer is one of the most important lifelong skills teachers can help students develop, but many educators do not have ample preparation to teach writing. While teaching writing is of critical importance, writing preparation comprises a smaller portion of literacy education research and practice and is not as well understood or implemented as reading preparation. The present dissertation investigated teacher preparation for writing instruction as provided either in teacher preparation programs or through professional development opportunities (see Chapters 2, 3, and 4).

The dissertation consists of three related explorations of teacher preparation for writing instruction intended to become three independent manuscripts. The second chapter, a systematic literature review, sought to develop an understanding of what the extant research shows about writing instruction delivered in teacher preparation programs and via professional development. Examining the mode and frequency of how writing methods instruction is delivered resulted in the recognition that there remain fewer teacher preparation courses solely devoted to writing instruction. Writing is most often included in literacy methods courses that tend to privilege preparation for reading instruction over writing. Fifty elements of writing instruction were coded and analyzed, finding the prevalence of instruction on the writing process and genre study across both preservice and in-service preparation. The Writing Workshop model was frequently identified as a framework for providing writing instruction.

The third chapter, a mixed-methods survey study, focused solely on elementary and special education teacher preparation programs and sought to gain insight into how writing

instruction is currently being provided. A detailed survey that incorporated the same list of 50 writing elements was sent via email to intentionally selected teacher preparation programs in eight states. Programs were purposefully selected to elicit responses from a diverse population of teacher preparation programs. Consideration was given to geographic diversity, varying levels of student performance on Common Core State Standards-aligned assessments, and state literacy policy related to the adoption of, or lack thereof, science of reading approaches to literacy instruction. A request for respondents to share syllabi and volunteer to participate in interviews was embedded in the survey questionnaire. Surveys were sent to 180 Institutions of Higher Education and 38 responses were received. Those responses secured 24 syllabi and six interviews. Together the survey responses, syllabi, and interviews supported that there are still few courses devoted to writing methods instruction across states of varying assessment levels and policy positions, but writing instruction overall seems to be increasing in both elementary and special education teacher preparation programs. Only minor differences were seen among states at low-, mid-, and high levels of performance on state assessments. States with policies aligned to the science of reading had a greater percentage of courses that included writing instruction for both elementary and special education teacher preparation according to survey results.

In response to the need for writing instruction to be provided through PD for teachers who are already working in classrooms, recommendations for PD opportunities were offered in Chapter 4. Written for school district administrators, this chapter explained the need for teachers to have more preparation for writing instruction and contained suggestions for both formal and informal ways to accomplish this.

I dedicate this dissertation to my father, who, from my earliest memory, made me believe I could do anything, and to my daughters, reminding you that I share this belief in you, too.

ACKNOWLEDGEMENTS

This little project has been a labor of love for the last seven years. I jokingly (but accurately) say that I had no idea what I was getting into when I walked into that first class, and I never would have made it through without the incredible support given to me since day one. I started as a naïve, starry-eyed doc student who embarrassingly confused the terms qualitative and quantitative in my first class; now I offer the following dissertation including a systematic literature review, mixed methods study, and practitioner piece as proof that I have grown tenfold since then. This would not have happened without the guidance and support I received along the way.

To my advisor and committee chair, Dr. Gary Troia, I offer my deepest gratitude. I like to think you saw potential in me from the first time we met in our roles as an expert writing researcher and a special education classroom teacher. Despite the frustrations I am certain I caused you over the past seven years, you continued to offer your guidance, expertise, support, and expedient feedback and helped me grow in my professional work. I know I would not have been able to complete this degree without you. I also offer my deepest gratitude to my dissertation committee members. A special thank you to Dr. Adrea Truckenmiller for always being so encouraging, helping me build connections as well as confidence, and making yourself available to brainstorm, talk through ideas, and review many rough drafts. To Dr. Eunsoo Cho, thank you so much for sharing your expertise and guidance. I wish you continued success in your new adventure. And to Dr. Katharine Strunk, thank you for bringing education policy into my world. I am so thankful our paths crossed and you took an interest in my research. I appreciate the unique perspective you brought to my committee and hope your new position meets all of your expectations.

I would be remiss if I did not mention the incredible support from my family and friends. You all have endured this path along with me, offering words of encouragement whenever I needed to hear them. To Tim, thankfully you won't have to ask if I'm closer to finishing anymore. I recognize that undertaking this academic pursuit has had a tremendous impact on you, too. Thank you for making adjustments that enabled me to focus and hide away in my office to accomplish this goal. I could not have done this without your support. My girls, Emily and Alissa, you make me incredibly proud every day and I'm so humbled my efforts here make you proud of me, too. Thanks for believing in me. I hope you view my accomplishments as affirmation that I know you can do anything – *anything* – you set your mind to. And to my parents, Lynne and Jon Shidler, thank you for never failing to remind me that you knew I could do this. I desperately wish my dad could be here to see my efforts come to fruition, but I feel his love and pride. Mom, your endless encouragement helped me to finally finish. Thank you all for, well, everything.

I also want to show my appreciation to the many others I met at MSU for their guidance, camaraderie, expertise, support, and encouragement. As a cohort of one, I could have walked this path feeling isolated, but that did not happen. I was supported by Dr. Savana Bak who came before me, and Dr. Cynde Josol and Dr. Sarah Avendaño who started after me and could have passed me by entirely. Instead, they scooped me up and carried me along with them. I know I would not have completed this dissertation without all of Dr. Avendaño's assistance and camaraderie. The thousands of Zoom hours we spent working and writing, and occasionally taking breaks to enjoy seeing each other's furry companions, were not for naught. I also want to thank Dr. Carol Sue Englert, Dr. Troy Mariage, Dr. Cindy Okolo, and Dr. Janine Certo for their guidance during my doctoral program. They all had a tremendous impact on me and my success.

TABLE OF CONTENTS

LIST OF ABBREVIATIONS.....	viii
CHAPTER 1:	
Introduction	1
CHAPTER 2:	
Systematic Literature Review of Writing Instruction Pedagogy for Preservice and In-Service Elementary and Special Education Teachers	10
CHAPTER 3:	
A Survey Study of Teacher Preparation Programs on Writing Methods Instruction	52
CHAPTER 4:	
Improving Staff Writing Pedagogy Instruction and Student Proficiency	97
CHAPTER 5:	
Goals for Writing Methods Instruction in Elementary and Special Education Teacher Preparation.....	112
REFERENCES	117
APPENDIX A: Codebook of Included Studies	134
APPENDIX B: Table of Systematic Literature Review Included Studies.....	141
APPENDIX C: Survey of Writing Methods Instruction	149
APPENDIX D: Semi-Structured Interview Questions	169
APPENDIX E: Codebook for Syllabi.....	171

LIST OF ABBREVIATIONS

CAEP	Council for the Accreditation of Educator Preparation
CALA	Cognitive Apprenticeship Learning Approach
CCSS	Common Core State Standards
IEP	Individual Education Program
IHE	Institute of Higher Education
NAEP	National Assessment of Educational Progress
NCW	National Commission Writing
NWP	National Writing Project
PBPD	Practice-Based Professional Development
PLC	Professional Learning Communities
PD	Professional Development
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
PSTs	Preservice teachers
SRSD	Self-Regulated Strategy Development
TPPs	Teacher Preparation Programs
WMI	Writing Methods Instruction
WWC	Writers-Within-Community theoretical framework

CHAPTER 1:

Introduction

Becoming a proficient writer is one of the most important lifelong skills a student should develop. In a report published in 2020, Chiong and Oliveira aptly stated, “Writing education does not just prepare students for academic achievement, but also prepares them for their life-long need to articulate their thoughts and communicate with others” (p. 6). To better understand the current state of writing education in America, the country’s largest youth writing network, 826 National, recently interviewed 19 writing experts who represent a diverse blend of writing expertise. Four themes of the benefits of writing emerged from these interviews (Chiong & Oliveira, 2020), including: (1) empowerment (affecting change and contributing to society), (2) creation (expression, storytelling, creativity, and communication), (3) self-growth (reflection, self-fulfillment, empathy, healing, confidence, and violence prevention), and (4) thinking and learning (critical thinking skills, clarity of ideas, comprehension, assessment, organization, and goal setting, among others). These themes and subthemes demonstrate that writing has a significant, positive impact on virtually every aspect of a person’s life. And yet, roughly one in four students does not meet requisite levels of writing proficiency during their K-12 years (National Center for Education Statistics, 2012). Given writing is such an essential life skill for students to develop, why is student writing achievement so low? While there are likely multiple answers to this question, examining the instruction students receive through the lens of how educators are prepared to teach writing is a productive area for scrutiny, because teacher preparation and professional learning can be altered to address shortcomings that affect writing instruction.

One of the most challenging tasks teachers face in their classrooms is teaching students to become proficient writers. There are numerous reasons why this is such an arduous task. First, writing is a complex process with high cognitive demands for both the educator and the student. Breaking down writing from ideation to the written product illustrates that writing unfolds as an intricate process, including planning and coordinating ideas with language (e.g., generating ideas, putting them into words that convey the intended meaning, knowing and selecting appropriate vocabulary, organizing ideas into meaningful chunks), applying writing rules to communicate effectively within a discourse community (e.g., spelling, grammar, capitalization, punctuation), and the physical act of putting ideas on paper or screen by transcribing them with a stylus or typing them on a keyboard (Cormier et al., 2016). Writers also must consider their writing purposes and goals, their audience, their own dispositions, knowledge, and skills, and determine the appropriate text structure and suitable format. The more explicitly students are taught how to write and have opportunities to practice what they learn with feedback, the more the writing process and task analysis flows with improved automaticity. One of the greatest concerns among teacher educators and researchers is that teachers are not taught how complicated and involved writing is, let alone how complex it is to learn how to teach writing; both are deeply sophisticated and time consuming (Dismuke, 2015). Lacking this understanding makes it difficult for teachers to teach writing effectively and to identify where along the process students may experience difficulties.

Second, giving teachers the skills to provide writing instruction, whether they are preparing for a career in education or are already in classrooms, is not prioritized as much as it should be. Teacher educators in Teacher Preparation Programs (TPPs) often feel unprepared to teach future educators about writing instruction (Myers et al., 2016). A majority of teacher

educators surveyed in 2016 reported learning about pedagogical writing instruction from self-study and research and rated themselves as only moderately successful at preparing future teachers about writing instruction (Myers et al., 2016). Adopting the vantage point of classroom teachers, fewer than one-third felt they were adequately prepared to teach writing to their students (Cutler & Graham, 2008), and many felt less prepared to teach writing than reading, math, science, or social studies (Brindle et al., 2016). Not surprisingly, after engaging in PD on writing methods instruction (WMI), a group of teachers who had years of classroom experience and minimal previous exposure to writing methods realized they were not adequately prepared to teach writing until they participated in a PD experience (Dismuke, 2015). Even teachers who experienced adequate training in writing instruction avoid teaching writing because, put simply, it is hard (Dismuke, 2015; Fry & Griffin, 2010). Thus, both individuals preparing future teachers and in-service teachers themselves acknowledge and share concerns around the lack of preparation, knowledge, understanding, and confidence to teach writing to students.

Relatedly, preparation to teach writing often is a lower priority than that teaching reading (Myers et al., 2019). There has been far greater research focused on reading instruction preparation than writing instruction (Grisham & Wolsey, 2011; Myers et al., 2019). Teachers are typically better prepared to provide reading instruction to their students than writing instruction, and sometimes reading is the sole focus of literacy instruction both in teacher preparation (Grisham & Wolsey, 2011) and in K-12 schools (Graham & Harris, 2013; Myers et al., 2016). Most often preparation for instruction on writing methods is embedded in reading methods courses in TPPs rather than having an entire class devoted to writing pedagogical methods, though writing and writing instruction are highly complex and deserving of their own “space” in

a TPP (Myers et al., 2016). This type of writing methods preparation is insufficient to adequately prepare educators to teach students in classrooms how to write (Dismuke, 2015).

Third, as noted, both teacher candidates and in-service teachers may have low self-efficacy related to writing and writing instruction and not perceive themselves as good writers. Recognizing a lack of subject matter knowledge and skill in writing instruction (Dismuke, 2015; Troia & Maddox, 2004) and a lack of confidence in themselves as writers (Bandura, 1986) likely has a negative impact on teachers' self-efficacy to teach writing (Dismuke, 2015; Pajares, 2003). This, in turn, is problematic in teachers' approaches to providing writing instruction to their students. Teachers who view themselves as writers offer richer writing experiences to their students, instilling enjoyment and tenacity, than teachers who do not (Cremin & Oliver, 2017; Street, 2003). When teachers have unresolved tensions about writing, they bring narrow skills-based approaches into their classrooms and consequently do not provide their students with good writing instruction or experiences (Cremin & Oliver, 2017; McCarthy et al., 2014). If teachers bring apprehensive attitudes to their writing instruction, students' abilities to become proficient writers are impacted (Bruning & Horn, 2000). Both competency and meaningful experiences (Brophy, 1999) are essential motivators for teachers and their students to take on the challenging task of writing (Dismuke, 2015).

For decades, various efforts called for increased attention to writing instruction, particularly the 2003 report issued by the National Commission on Writing, created by the College Board. As the title, *The Neglected "R": The need for a writing revolution*, denotes, writing has been the neglected of the three "Rs" of education. In this report, the Commission delineated a writing agenda for the nation, identifying 20 requisite items to create a national writing revolution. Key among these recommendations was an increased focus on teacher

preparation for writing methods preparation for prospective and current educators. Given current student proficiency levels in writing, it is unclear the extent to which TPPs have adopted the recommendations set forth in the report – including teacher preparation – two decades after the report’s publication. There is a need to better understand the current state of teacher preparation for writing pedagogy and instruction.

Present Dissertation

This dissertation explores how current and future elementary and special education teachers are prepared to provide writing instruction to their students. The concentration on elementary and special education teacher preparation is intentional, as mastery of foundational skills in the early grades is essential to prepare students for higher-order thinking and writing in subsequent years (Graham, 2013). Accordingly, elementary teachers must have the requisite knowledge and preparation to provide this instruction. Special education teachers also are included because they must be at least as adequately prepared with the knowledge and skills to provide writing instruction as elementary teachers in order to meet the needs of students who have writing goals as part of their Individualized Education Programs (IEPs).

Beginning with a systematic review of the existing literature on educator preparation for writing, both via TPPs for those entering the field and professional development (PD) for teachers already in the classroom, this dissertation explores relevant literature published between 2003 and 2021, bridging the years since publication of *The Neglected “R”*. Next, understanding that preparing teachers to become confident, competent teachers of writing begins with building positive perceptions and effective practice in TPPs (Dismuke, 2015), this dissertation includes a mixed-methods survey study including document review and interviews to investigate if, how, and what kind of WMI is provided in TPPs across the country. Following the survey discussion,

the focus shifts from preservice teachers' preparation to implications for in-service writing instruction with PD recommendations for administrators to provide PD to their staff. An assessment of the learnings garnered from the systematic literature review, surveys, interviews, and documents reviewed, incorporating suggestions for improvements to teacher writing pedagogy preparation for practitioners concludes the dissertation.

Chapter 2: Systematic Literature Review

Following this introductory chapter, a systematic literature review examines studies of elementary and special education teacher preparation for WMI published from 2003 to 2021, to include the full breadth of articles published in peer-reviewed journals since the National Commission on Writing's 2003 report. Focus is shared between studies of TPPs and professional learning for in-service educators. The systematic literature review was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines, excluding articles focused on secondary teacher preparation and PD.

This chapter reviews the literature to extricate information related to the following two research questions: What topics are included in writing methods instruction (e.g., theory, transcription skills, translation skills, assessment, strategy instruction, classroom practices, adaptations, accommodations) in TPPs for elementary and special education preservice teachers? What topics are included in writing methods instruction in professional learning opportunities for elementary and special education in-service teachers? Data were analyzed using descriptive statistics.

Chapter 3: Mixed-Methods Study

The purpose of the third chapter is to understand how WMI is currently incorporated into elementary and special education TPP courses at Institutions of Higher Education (IHEs) across

eight different states and what is included in that instruction. States were selected based upon three criteria, including: (1) low, middle, or high performance on English language arts state Common Core State Standards (CCSS)-aligned assessments; (2) geographic location in the Western, Southern, Midwestern, or Eastern quadrant of the United States; and (3) state literacy policy stance based upon whether elementary or special education teacher certification examinations incorporate demonstration of understanding based in the science of reading. A mixed-methods design (Creswell, 1999) includes analyses of surveys sent to elementary and special education TPPs, interviews with teacher educators, and literacy methods syllabi from surveyed TPPs. This research design allows triangulation of the data collected to address the following research questions: (1) In what courses is writing methods instruction delivered in elementary and special education TPPs across these states with high, middle, and low levels of student performance on English language arts CCSS-aligned state assessments? (2) Which elements of writing methods instruction do elementary TPPs incorporate in these states? (3) Which of these elements of writing methods instruction do special education TPPs incorporate in these states? (4) How are elements of writing methods instruction reflected in course syllabi? (5) Which of these elements are included in TPPs in states with literacy policy that includes licensure tests grounded in the science of reading for elementary and special education teachers? Data were analyzed using descriptive statistics, constant comparative method of qualitative analysis, and analyses of variance to examine mean differences.

Chapter 4: Practitioner Recommendations

Chapter 4 addresses the educator-identified need for professional learning on writing methods and includes suggested evidence-based approaches for administrators to provide professional learning opportunities on a school-wide or district-wide basis. Providing

professional learning can raise teachers' confidence in providing writing instruction to students, which ultimately serves the purpose of improving student writing proficiency.

Focusing on an audience of administrators is an intentional decision. Directing a practitioner article toward this administrator audience capitalizes on a unique opportunity to expand WMI through the translational science model (Petscher et al., 2020). Translational science as it can be applied to educational research is the process of translating science, in this case the research on writing pedagogy instruction, into practice in classrooms (Terry et al., 2021). As an individual who straddles both worlds of research and practice, I am in a unique position to fill the role of skilled communicator¹ and silo bridge² in the translational scientist model (Petscher et al., 2020; Solari et al., 2020; Terry et al., 2021), sharing the knowledge I have gained from methods mavens³, including my own research in this dissertation, with those who are the expert implementers⁴. We need to bridge the gap between research and practice given the delay of years between developing evidence-based practices and translating them into routine classroom practice used by many educators. While the ultimate implementers in the case of writing instruction are the classroom teachers, I chose to direct this information to administrators with the optimistic view that a greater number of classroom educators can benefit from a school-wide or district-wide initiative. Teachers feel valued and have improved self-efficacy when their principal provides access and encouragement to attend PD (Winn et al., 2021). Further, staff development is more meaningful when it addresses teachers' instructional needs (Blase & Blase,

¹ Skilled communicator: A scientist who communicates scientific ideas, research, and evidence among and between various groups effectively (Petscher et al., 2020).

² Silo bridge: A scientist who seeks to enhance interdisciplinary and multidisciplinary collaboration for research, practice, and stakeholder engagement (Petscher et al., 2020).

³ Methods maven: A scientist who applies the scientific method to develop and/or conduct studies with rigor, replicability, and transparency (Petscher et al., 2020).

⁴ Expert implementer: A scientist who applies scientific findings to move discoveries from the lab to the field to improve educational outcomes (Petscher et al., 2020).

2004). An administrator who provides professional learning for writing instruction as a school-wide or district-wide initiative creates an opportunity to build collaborative networks which are essential for successful teaching and learning (Blase & Blase, 2004). With administratively supported educator network, this approach is more likely to result in systemic change.

This chapter was written for an intended audience of education administrators and will be shared with them via a professional practitioner magazine. As such, this chapter carried a different tone with a less academic and more conversational writing style. Addressing a problem with student writing performance familiar to this audience, this chapter served a call to action, providing resources to help schools and districts improve teachers' instructional practice and student writing outcomes.

Chapter 5: Conclusion

Chapter 5 synthesizes the results of the systematic literature review and the mixed-methods survey study together with the recommendations provided in Chapter 4. Limitations of Chapters 2, 3, and 4 are noted and their implications are considered. Recommendations for future research based on the results of the dissertation in its entirety are also included.

CHAPTER 2:

Systematic Literature Review of Writing Instruction Pedagogy for Preservice and In-Service Elementary and Special Education Teachers

“Writing today is not a frill for the few, but an essential skill for the many” (National Commission on Writing, 2003, p. iii). Written almost two decades ago, this statement still holds true. Research well establishes the importance of writing ability (Bangert-Drowns et al., 2004; National Writing Project, 2021; Graham & Perin, 2007a, 2007b; National Commission on Writing, 2003, 2004; Troia, 2014). Strong writing skills provide individuals with greater opportunities when applying for jobs, obtaining and retaining employment, and receiving promotions (National Commission on Writing, 2004). Writing is essential in life to be able to articulate thoughts and communicate with others, to deepen thinking and learning, and explore creativity; it empowers individuals and provides opportunities for self-growth (National Writing Project, 2021). Additionally, teaching writing effectively can improve learners’ reading abilities including their comprehension of texts (Graham & Hebert, 2011) and writing-to-learn activities can enhance learning in science, social studies, and mathematics (Graham et al., 2020). Thus, writing positively impacts learning across all subject areas. To achieve a level of writing proficiency sufficient to derive these benefits, writing skills must be developed and reinforced over many years, particularly throughout an individual’s years in grade school.

Unfortunately, the quality of writing instruction currently provided does not appear to be adequate to cultivate proficient writers. Twenty years ago, *The Neglected “R”* report of the National Commission on Writing (NCW) promoted five recommendations to facilitate improved writing achievement: (1) creating a writing agenda for the nation through standards and policies; (2) increasing and dispersing time spent on writing; (3) improving and aligning writing

assessments to better measure results; (4) incorporating new technologies; and (5) better preparing teachers. Despite these recommendations, writing achievement continues to lag far behind where it needs to be. The most recent data available from the National Assessment of Educational Progress (NAEP) shows that, as of 2011, only 27% of eighth graders and 27% of twelfth graders were writing at or above grade level proficiency. Although the NAEP writing assessment was administered to fourth and eighth graders in 2017, the results were not released due to measurement problems (NCES, 2019). Nevertheless, the preliminary but unreleased results from the 2017 assessment “showed a pattern of lower performance” which may or may not have been due to the electronic devices upon which students took the assessment.

Regardless of the lack of more current assessment data on student writing performance, effective writing instruction is central to improving student writing outcomes. To be effective teachers of writing, teachers must possess both content knowledge, in this case writing knowledge, and pedagogical content knowledge, or the principles and practices to effectively teach writing (Troia, in press; Borg, 2003). The pivotal link lies in equipping teachers with the necessary content and pedagogical knowledge so they are prepared to be effective teachers of writing.

This systematic literature review focuses on the fifth of the NCW’s (2003) recommendations, teacher preparation for writing instruction, because that is an integral component to changing how writing is taught. This review may offer insights into how to improve teacher preparation in writing. The author explores the extant research to identify what WMI elementary and special education teachers receive as teacher candidates in their TPPs or through in-service professional development PD. This review will highlight areas where progress has been made since the 2003 publication of *The Neglected “R”* and where it is still needed as of

2021. This is the first step to identifying recommended changes to delivery of WMI in TPPs and through PD efforts.

Writing Methods Instruction (WMI) Defined

The term *writing methods instruction* as used in this systematic literature review incorporates a broad array of concepts, including lower-order skills such as letter formation and spelling and higher-order skills involving the intricacies of complex text structures used in genre-specific writing, as well as their progression in childhood development. The term also is used to reflect the acquisition of relevant writing pedagogical knowledge. WMI as defined here includes any of the following components: writing theories, writing development including transcription and translation skills, reading-writing connections, evidence-based instruction and assessment practices, and student writing adaptations or accommodations for those with writing problems or disabilities. WMI is, in fact, teacher preparation for all facets of writing instruction. The reasons for including these elements in writing instruction are discussed below.

Improving Student Writing Achievement through Teacher Preparation

The components named above should be taught in conjunction with each other to provide the best methods of writing instruction to current and future educators so they will be prepared to deliver comprehensive writing education to students in classrooms (Graham, 2022). It is critical that improved teacher preparation be a focal point of efforts to improve student performance. In 2021, 826 National interviewed 19 leading writing experts about the state of writing across our country⁵. Among these experts were professors/researchers from top research universities,

⁵Listed in alphabetical order: Lucy Calkins (Columbia University), Kathy Crutcher (Shout Mouse Press), Elyse Eidman-Aadahl (National Writing Project), Antero Garcia (Stanford University), Amanda Gorman (U.S. Inaugural Youth Poet Laureate), Steve Graham (Arizona State University), José Torres Guardarama (Instruction Partners), Marcelle Haddix (Syracuse University), Qorsho Hassan (4th grade Minnesota Teacher of the Year), Asao B. Inoue (Arizona State University), Madeline Kobayashi (Curriculum Coach), Mandy Manning (2018 National Teacher of the Year), Pirette McKamey (Principal, San Francisco, CA), David Mura (author), Susan B. Neuman (New York

curriculum and instructional materials developers, PD instructors, classroom teachers, authors, and writing organization leaders. Through insights gained from the interviews and the experts' collective knowledge, 826 National published a report entitled, *The Truth About Writing Education in America: Let's Write, Make Things Right*. In this report, the authors identify three key challenges to raising student writing proficiency, namely (1) writing needs to be prioritized and at the center of instruction but that is not yet happening, (2) curricula, teaching methodologies, and assessment practices are outdated, and (3) teachers receive too little training on writing instruction and too few opportunities to explore their identities as writers. Notably, the third challenge identified that teachers do not receive enough support for implementing high-quality writing instruction through personal and PD opportunities. To address the three challenges, the organization offered four recommendations to improve writing instruction:

- Redefine the classroom: Encourage and support students to continue writing anywhere, anytime, about anything, and with any platform.
- Reunite reading and writing: Make the relationship between reading and writing explicit through discussion, examples, and publishing student work from early on.
- Identify teachers as writers: Establish communities of practice for teachers to learn, share, and grow as writers.
- Level the playing field: Invest in the writing education of those who need it most, who do not have the same level of access to high-quality educational opportunities, and also by improving teaching practices, materials, and training through a lens of equity.

University), Kimberly Parker (NCTE 2020 Outstanding Elementary Educator), Nichole Pinkard (Northwestern University), Jason Reynolds (author), Jennifer Serravallo (author).

Collectively these recommendations from 826 National connect to the WMI components listed earlier. These recommendations highlight the need to explicitly teach educators, and thereby teach students, about the interconnectedness of reading and writing, as well as the importance of teachers identifying themselves as writers to increase opportunities for them to learn, share, and grow with each other and with their students.

While improving student outcomes is the ultimate goal of writing instruction, and research indeed shows that improved teacher preparation (e.g., McKeown et al., 2023), fidelity of implementation of evidence-based practices (e.g., Harris et al., 2022; McKeown et al., 2023), and educator efficacy related to providing writing instruction (e.g., De Smedt et al., 2016) are associated with improved student writing outcomes, studies centered around student outcomes were not included here. As noted earlier, this review focuses on what elements of WMI are provided in TPPs and through PD to future and current educators.

Educator Preparation for Literacy Instruction

Reading instruction has received much attention, particularly relating to the “science of reading” and the need for teachers to understand reading instruction more broadly and deeply (Tortorelli et al., 2021). Teachers do not receive the same level of preparation for writing instruction (Grisham & Wolsey, 2011). As implied by the title of the NCW’s report, *The Neglected “R”*, writing has taken a back seat to the other two “Rs,” reading and [a]rithmetic. Preparation for reading instruction is typically more prevalent than preparation for teaching writing in both TPPs and in-service teacher (PD) and, when addressed, is often an afterthought left for whatever time is available at the end of the semester (DeFauw & Smith, 2016; see also Spiker 2015). Sometimes reading is the sole focus of literacy instruction in teacher preparation (Grisham & Wolsey, 2011) and in K-12 classrooms (Graham & Harris, 2013; Myers et al., 2016).

Laura Brief, Chief Executive Officer of the nation's largest youth writing network, 826 National, Inc., insightfully noted, "All too often literacy is defined as reading alone, not writing [sic]...[R]eading is access, but writing is power" (National Writing Project, 2021, 4:32). Writing instruction cannot continue to exist primarily in the shadow of reading instruction. The importance of and components addressed through WMI should be made explicit to both future and current teachers, so they understand that when they provide writing instruction to their students, they are helping to improve both reading and writing skills, as well as thinking and learning more broadly (Graham & Hebert, 2011).

A shift in how teachers are prepared to teach writing is needed. This need is evident in the reports of the National Commission on Writing, by the continued high percentage of students who do not demonstrate proficiency in writing on the NAEP, and also by the adoption of the Common Core State Standards for Writing and Language (CCSS-WL) in 2010, which highlight the importance of writing instruction for and the writing achievement of students (Graham et al., 2015; Graham & Harris, 2017; Troia & Olinghouse, 2013; Troia et al., 2015, 2016, 2018). Writing also is incorporated into the CCSS content area learning standards, thus leading to writing being featured prominently throughout the CCSS.

The preparation provided to elementary and special education teachers to teach writing needs further research given the likelihood that WMI is currently insufficient based on the low student writing achievement that exists. Improved student learning is typically equated with improved teacher quality and knowledge (Addison & McGhee, 2016). Greater teacher knowledge of literacy skill development, language structure, and theory- and research-based concepts and practices has resulted in improved student reading achievement outcomes (Binks-Cantrell et al., 2012; Lyon & Weiser, 2009; Podhajski et al., 2009; Spear-Swerling & Zibulsky,

2014). It therefore should follow that when teachers have greater knowledge about writing and writing pedagogy through WMI, student writing achievement outcomes will improve. Until teachers receive adequate preparation for writing instruction, it is unlikely student achievement will make much needed gains. Teachers cannot teach what they do not know (Binks-Cantrell et al., 2012).

In addition to having deep knowledge and understanding of writing methods, skills, development, and other components to teach all aspects of writing effectively, Paulick and colleagues (2019) suggest teachers need to be enthusiastic writers themselves and should be committed to their own writing practice. Teachers need to view themselves as writers to consider themselves as part of a writing community, and to promote and build writing communities within their classrooms (Graham, 2018). Teachers also need to view themselves as writers to be able to consider the inherent effort and challenges. However, teachers, like other writers, may not always feel enthusiastic about their own writing. When frustrations and blocks make writing challenging, experienced and proficient writers have learned ways to move beyond those challenges. Teachers need to learn about and use these techniques so they can model for their students how to manage challenges when writing does not go smoothly (Harris & Graham, 2009).

Teacher Perceptions of Preparation for Writing Instruction

Given the extent of knowledge teachers need to effectively teach writing, are they learning what they need to know? In TPPs, writing instruction may be taught in a stand-alone course, embedded in reading, literacy, or language arts courses, embedded in content area courses, or it may be absent altogether (Brenner, 2013; Morgan, 2010; Myers et al., 2016). Embedding WMI in reading, literacy, or language arts methods courses may make sense given

the interconnectedness of reading and writing, and writing and learning (Graham et al., 2020; Graham & Hebert, 2010, 2011; Hebert & Powell, 2016; Shanahan, 2009). Because TPPs explicitly serve the purpose of preparing future teachers, how and what teachers learn in these programs is important to their future ability to effectively teach writing. Unfortunately, it can be difficult to know what WMI is provided to future educators due to the inconsistencies of how and in what context WMI may be delivered.

Regardless of how WMI has been provided in TPPs for future educators, or PD for those already in the classroom, teachers report a lack of preparation for writing instruction at the elementary level (Cutler & Graham, 2008; Gilbert & Graham, 2010; Graham & Hebert, 2010). In a 2008 study by Cutler and Graham, 28% of the 294 elementary teachers who were surveyed felt their preparation was good or outstanding, but the majority felt it was only adequate (42%) or actually inadequate (28%). Almost a decade later, in 2016, less than 50% of third through eighth grade teachers surveyed had taken any coursework in their TPP that included writing instruction or had been engaged in PD that prepared them to implement the CCSS writing standards (Troia & Graham, 2016). Even more recently, third and fourth grade teachers across the country reported feeling less prepared to teach writing than reading, math, science, or social studies (Graham, 2019; also see Brindle et al., 2016). In fact, 76% of these teachers reported receiving little or no preparation in their college TPPs to teach writing and at least 78% received no preparation at all in their TPPs for teaching genre-specific writing including informative, narrative, and opinion text types (Brindle et al., 2016), three genres identified in the CCSS-WL.

WMI for Preservice and Practicing Elementary and Special Education Teachers

“If we are going to fix our writing problem, we have to start at the beginning: with the foundational skills in the early grades that prepare students for higher-level thinking and writing”

(Graham, 2013, p. 3). While the foundational skills described by Graham begin early in a student's schooling (and really, prior to school entry), higher-order ideation and writing ability build quickly throughout a student's elementary school years and across content areas. Accordingly, all the components of WMI named earlier should be part of an elementary teacher's knowledge base. Special education teachers also are expected to have at least equivalent breadth and depth of literacy knowledge as elementary teachers and perhaps even more given their expertise in task management, scaffolding, differentiation, and the fact they have to teach students receiving special education services who have reading and writing goals as part of their IEP. Many students with disabilities struggle with written expression and special education teachers must understand how to identify, prioritize, and teach to address these challenges (Hessler & Konrad, 2008).

Research Questions

Given the need for a better understanding of elementary and special education teachers' preparation through WMI, the following research questions were explored:

1. What topics are included in writing methods instruction (theory, transcription skills, translation skills, assessment, strategy instruction, classroom practices, adaptations, accommodations) in TPPs for elementary and special education preservice teachers?
2. What topics are included in writing methods instruction in professional development opportunities for elementary and special education in-service teachers?

Method

Procedures

A systematic literature review uses explicit, systematic methods to collate and synthesize findings of studies that address specific and clearly formulated questions (Page et al., 2021).

Following the PRISMA 2020 guidelines, the author conducted a systematic literature review of studies in peer-reviewed journals, written in English between 2003 and 2021, that included detailed information about WMI. The author selected peer-reviewed studies because they were deemed to be high quality studies worthy of publication after rigorous review and critique by experts in the field and would likely make a contribution to the particular field of research. The timeframe of 2003 to 2021 accounts for incorporation of the recommendations to improve writing instruction outlined in the 2003 publication *The Neglected “R”*, in particular the suggestion for increased and improved teacher preparation.

PRISMA 2020 provides specific definitions for terms related to systematic reviews, notably records, reports, and studies, which are defined for clarification. Records include titles and abstracts which are screened initially and lead to the retrieval of full-text reports. For the purposes of this systematic literature review, reports include journal articles. Studies have defined participants, one or more interventions, and outcomes. A study may include one or more reports.

Search Strategy

To search for relevant articles on writing methods instruction, the author applied the noted criteria through filters and limitations to search for peer-reviewed articles published in English between January 1, 2003, and December 31, 2021. The search included two databases, PsycINFO including PsycArticles (high quality index of social science research including education with full-text access to peer-reviewed articles from top psychology journals) and Education Resources Information Center (ERIC; largest online library of education research and information). The following broad search terms and roots were employed, limiting the first string to the abstract field since it specifically addresses a research question, and opening the other

search terms to be contained anywhere in the searched records: *writing (instruction OR pedagogy or method*) AND (elementary OR special) AND (preservice OR student OR intern OR future OR candidate OR in-service OR classroom OR current OR practicing) AND (teach* OR educat*) AND (teacher AND (preparation program OR education OR coursework)) OR professional (learning OR development)*. Additionally, the author conducted a hand-search over the past ten years (2012-2021, nearly half the time period) of the following five peer-reviewed journals that were most frequently cited in the introductory section of this systematic literature review to ensure full coverage: (1) *Reading & Writing: An Interdisciplinary Journal*, (2) *Journal of Educational Psychology*, (3) *Elementary School Journal*, (4) *Literacy Research and Instruction*, and (5) *Teaching/Writing: The Journal of Writing Teacher Education*. Finally, the author conducted an ancestral search of the reference lists of studies included after screening.

Study Identification and Inclusion Process

Records were screened and included if they met inclusion criteria. First, as noted, studies had to be published in English in peer-reviewed journals between January 1, 2003 and December 31, 2021. Additionally, studies had to include information about WMI provided in either undergraduate or graduate TPPs for elementary or special education teacher candidates, or via PD that addressed WMI. Finally, studies had to focus on writing instruction. If studies did not meet these criteria, they were excluded.

Full text articles were screened against five exclusion criteria. Reports were excluded if: (1) they did not include a description of TPP or PD WMI content (e.g., studies focusing solely on teachers' perceptions of their preparedness to teach writing were excluded); (2) the focus of the study was not limited to either elementary education or special education high-incidence disabilities (e.g., studies focused on student populations with autism spectrum disorder, those

who were deaf/heard of hearing, those with visual impairments, or English learners were excluded because preparation to teach these low incidence populations would require more specialized training); (3) studies focused on a combination of reading and writing instruction, or identified literacy instruction generally, not just WMI; (4) they were edited chapters, governmental or other reports, as opposed to research articles; or (5) the study was a writing intervention study with the main purpose of measuring student outcomes and did not include a description of TPP or PD WMI content.

Based on PRISMA guidelines, two trained screeners determined which studies were eligible for inclusion in the review, the first author and a doctoral student. Using a screening form that integrated the all the selection criteria, the screeners reviewed records retrieved from the database and hand searches. The second screener was trained by the author to screen the studies by explaining the purpose of this systematic literature review, the research questions, and reviewing the selection criteria. Ten records were provided for screening practice for which 90% agreement was achieved. The second screener then independently double-screened a random sample of 30% of the records. For each phase of screening and subsequent coding, interrater reliability (IRR) was calculated as the percentage of agreement (i.e., agreements divided by agreements plus disagreements). IRR for inclusion criteria was calculated at 93.1%, and IRR for exclusion criteria was calculated at 92%. All discrepancies were resolved through discussion.

Data Extraction

Utilizing a coding document created in Google Forms, attached as Appendix A, pertinent information was extracted from each included study in response to the research questions posed. Extracted information included: (a) teacher certification type (elementary, special education, or both), (b) educator status (preservice or in-service), (c) type of training (TPP undergraduate, TPP

graduate, or PD), (d) writing theory, (e) transcription skills (handwriting including letter formation, spelling, mechanics/conventions, keyboarding/typing, computer technology/word processing), (f) translation skills (sentence structure, morphology, vocabulary in context, writing process, purpose, audience awareness, genre), (g) writing assessment (rubrics, peer feedback, adult feedback, evaluations based on multiple writing samples by multiple evaluators), (h) strategy instruction, (i) classroom practices (extra time for writing, free writing, peer collaboration, teacher modeling, creativity instruction, utilizing text models, authentic and relevant tasks, motivation), (j) writing difficulties (e.g., accommodations or adaptations made to the classroom environment, tasks, materials, instruction, or evaluation, or considerations for spelling errors or dysgraphia). Data on the length of training, i.e., number of sessions or days, was collected and a space for notes was provided for additional comments. Several of the coded categories including writing theory, translation skills (writing process and genre), and strategy instruction are described in more detail below. The first author coded all 32 included studies to extract pertinent data and the third author double-coded 31% of these studies (10 randomly selected studies from the 32), achieving IRR of 85%. As with the screening phases, discrepancies were resolved through discussion.

Writing Theory. Three writing theories were coded, namely sociocultural theory, cognitive process theory, and social cognitive theory. Sociocultural theory developed from Vygotsky's (1978) work and, when applied to writing instruction, centers around writing as a social activity where learning occurs from interaction with more knowledgeable others (Hodges, 2017). Cognitive process theory emerged from the work of Flower and Hayes (1981) and views writing as an iterative process reliant on cognitive mechanisms including cycling through the steps of the writing process multiple times when producing writing (Hodges, 2017). The social

cognitive theory is grounded in self-efficacy and self-regulation (Hodges, 2017; see also Bandura, 2001, Pajares, 2003). Under the social cognitive theory writers learn in multiple ways including seeing a task modeled, working collaboratively, having choices, and reflecting on past performance. Students build their confidence and self-efficacy through these experiences.

Writing Process and Genre. The idea that individuals progress through an iterative writing process is long-standing. In 1973, Donald Graves studied seven-year-olds' writing processes and identified several stages (Leigh & Ayres, 2015). While writing stages are recognized and often described as prewriting, drafting, revising, editing, and publishing (Leigh & Ayres, 2015), the names of the stages may be altered and there may be additions or deletions. Included studies were coded if they identified the writing process, either in general or by specific stages, as being included in WMI. Finally, the CCSS-WL (2010) identify three genres, namely informative, narrative, and opinion. The CCSS reading standards also name poetry. All four of these genres were coded.

Strategy Instruction. Strategy instruction involves directly and explicitly teaching students specific strategies to use in their writing for planning, revising, or editing text, with the goal of independently using the strategies taught (Graham, 2008). Five categories of strategy instruction were described, as noted in the codebook attached as Appendix A. They include: (1) comprehensive writing instruction (writing process plus strategy instruction, skills instruction, and/or text structure instruction), (2) strategy instruction (explicit and systematic instruction through modeling and guided practice with feedback for any part of the writing process with the goal of independent strategy use), (3) self-regulation and metacognitive reflection (regulate the quality and productivity of writing or content learning through monitoring, reflection, and evaluation of behaviors and performance through tracking such as graphing), (4) setting product

goals (set observable, specific, and individual goals for what students will accomplish in their writing), and (5) one or more specific strategy models (e.g., Strategic Instruction Model (Hock et al., 2017; see also Bulgren, 2004; Bulgren et al., 2007), Brain Frames (Singer & Bashir, 2000), 6+1 Traits (Culham, 2003), Self-regulated Strategy Development (Graham et al., 1993), defined as a specific model for teaching strategies leading to independent student use (Troia, 2014).

Results

Figure 1 provides an overview of the search using the PRISMA flow diagram. The electronic ($n = 1,559$) and hand searches ($n = 2,283$) yielded a total of 3,842 records which were exported into Zotero reference management software. Of the records initially identified, 223 were recognized as duplicates and removed before screening. After screening the titles and abstracts of the 3,619 remaining records against the inclusion criteria, 3,328 records were subsequently excluded.

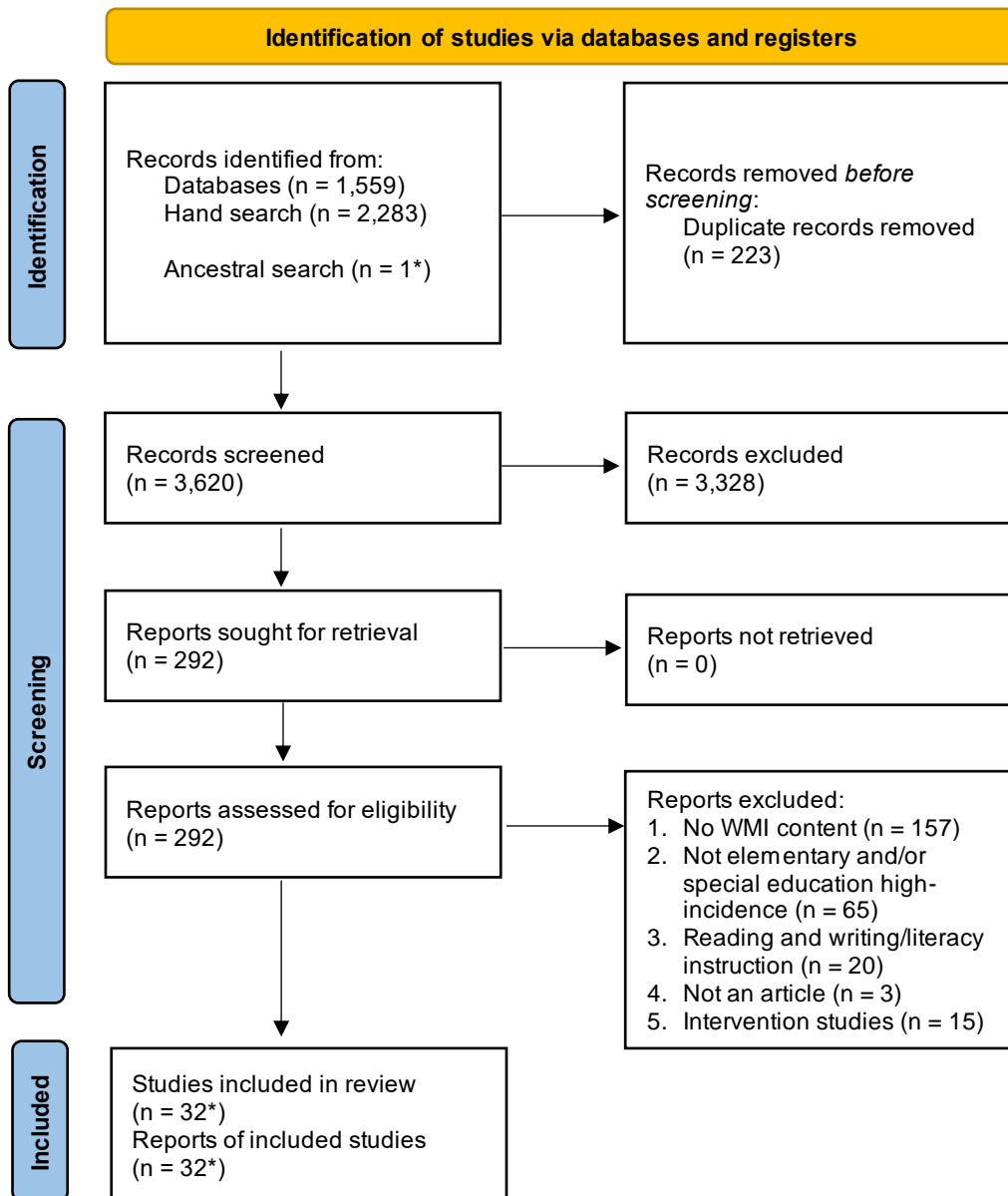
Next, 291 full text reports were assessed for eligibility. After screening these reports against the exclusion criteria, 31 studies met eligibility criteria. The second coder screened five reports for practice before independently screening a random selection of 30% of the 291 records ($n = 88$) based on the exclusion criteria, achieving 85% IRR.

For the final step in record identification, the author conducted an ancestral search by screening the titles of the referenced literature of the 31 included studies. Inclusion and exclusion criteria were applied to the studies from the ancestral search, resulting in one study being added to the final included reports. The combination of the electronic, hand, and ancestral searches resulted in 32 studies that met all selection criteria and were included in the systematic literature review. Several patterns emerged from reviewing the included studies and extracting information

based upon the research questions. An overview of the extracted and coded data summarizing the 32 included studies is included in Appendix B.

Figure 1

PRISMA 2020 Flow Diagram

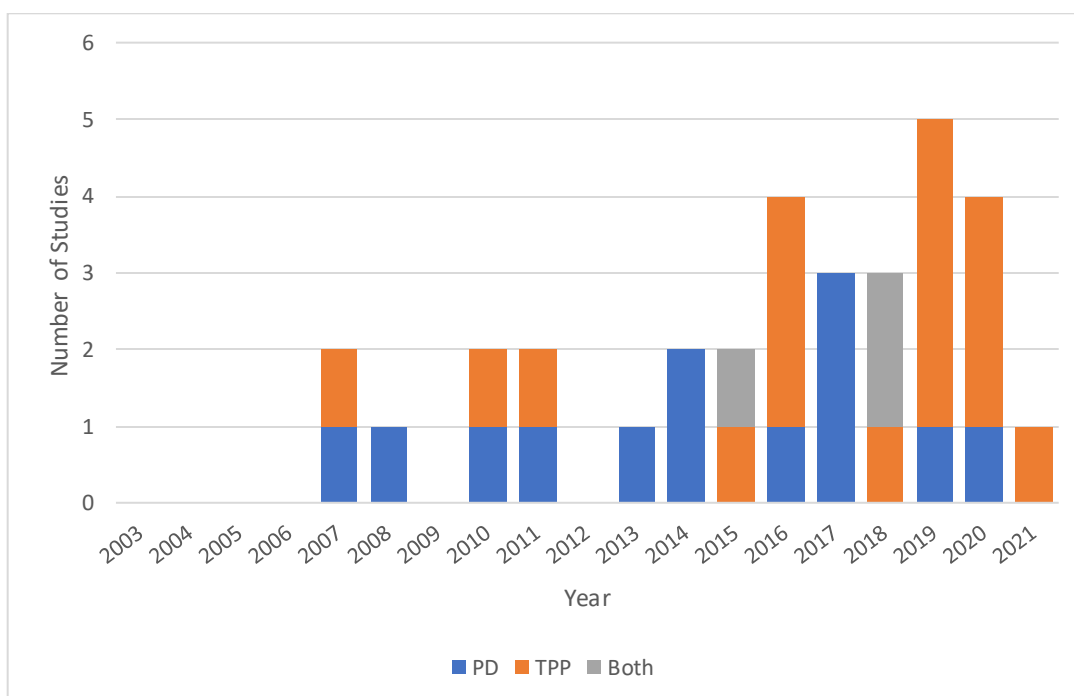


General Study Characteristics

Over the nearly twenty-year span (2003-2021) covered by this literature review, the first five years yielded no studies that met inclusion criteria as shown in Figure 2. Additional gaps are noted in 2009 and 2012, although studies centered around WMI notably increased following adoption of the CCSS in 2010. The number of studies that detailed WMI content trended upward in the mid to late 2010s and into 2020. The focus of the included studies shifted from a concentration on WMI delivered through PD in 11 of the 19 (57.9%) studies between 2007 and 2017, to two of three studies addressing both PD and TPP in 2018, and eventually focusing on WMI provided in TPP in eight of ten (80.0%) included studies from 2019 to 2021. This is a curious shift in priority of WMI research, and a notably delayed interest in WMI since publication of *The Neglected “R”* in 2003 that highlighted the need to address teacher educator programs and PD in recommendation 5 (and 1).

Figure 2

Number of WMI Studies Per Year



Most of the included studies concentrated on elementary teachers ($k = 25$; 78.1%) followed by studies of both elementary and special education teachers ($k = 6$; 18.8%) and special education teachers only ($k = 1$; 3.1%). The smaller number of studies of special education teachers is not surprising because there is less research on special education teacher preparation than other types of teacher preparation (Brownell et al., 2005). Included studies involved WMI provided either to preservice ($k = 18$; 56.3%) or in-service teachers ($k = 14$; 43.7%).

The number of participants in each mode of WMI delivery was divided into TPP undergraduate programs ($k = 14$; 43.8%), TPP graduate programs ($k = 2$; 6.3%), or both ($k = 2$; 6.3%). One study (Martin & Dismuke, 2018) included a writing methods course taught to both undergraduate and graduate students by the same instructor ($k = 1$; 3.0%). Another study, Dismuke (2015), involved WMI provided as PD but delivered through a university course spanning a school year. This study was coded as PD because it was not part of a degree program. This mode of delivery disbursement within TPP programs provides a segue into the research questions.

Research Question 1: What topics are included in writing methods instruction in TPPs for elementary and special education preservice teachers?

To explore this first research question, WMI content reported in the included studies was coded into the following categories for both undergraduate and graduate TPPs: (1) writing theory, (2) transcription skills, (3) translation skills, (4) assessment, (5) strategy instruction, (6) classroom practices, (7) writing difficulties, and (8) general information about frequency and elective versus required status of TPP courses with WMI. Results are summarized in Appendix B.

General TPP Course Information

As noted in Table 1, general information was collected to discern how many courses in a program included WMI and whether the course or courses were required for elementary or special education PSTs or both. While four of the included studies examined multiple TPP programs and/or a variety of courses (Brenner & McQuirk, 2019; Myers & Paulick, 2020; Myers et al., 2016; Scales et al., 2019), the other 14 focused on one program's course offerings. Of those 14, only one indicated there was more than one methods course, in this case three courses, that included WMI (Grisham & Wolsey, 2011). Five studies indicated course(s) that include WMI were required for PSTs seeking elementary certification (Brenner & McQuirk, 2019; Grisham & Wolsey, 2011; Hawkins et al., 2019; Kelley et al., 2007; Kuehl, 2018) while in two WMI course(s) were required for special education certification (Kelley et al., 2007; Painter, 2016).

Table 1

TPP Study Demographics

	Number of courses	Required
Braden & Gibson (2021)	1	
Brenner & McQuirk (2019)	examined multiple programs	elementary
Cartun & Dutro (2020)	1	
Colwell (2018)	1	
DeFauw & Smith (2016)	1	
Fry & Griffin (2010)	1	
Gair (2015)	1	
Grisham & Wolsey (2011)	3	elementary
Hawkins et al. (2019)	1	elementary
Kelley et al. (2007)	1	elementary and special education
Knight & Block (2019)	1	
Kuehl (2018)	1	elementary
Martin & Dismuke (2017)	1	
McQuitty & Ballock (2020)	1	
Myers & Paulick (2020)	examined multiple programs	
Myers et al. (2016)	examined multiple programs	
Painter (2016)	1	special education
Scales et al. (2019)	examined multiple courses	

Writing Theory

Originally, coding for writing theory was intended as part of WMI provided to pre-service and in-service teachers; however, the included studies did not reference theory as part of WMI. Rather writing either was noted as the framework for the study or acknowledged as an influence on writing instruction in general. The majority of studies included did not clearly state that these theories were part of the WMI provided. Thus, while five of the included TPP studies included conceptual discussions based on sociocultural theory (Knight & Block, 2019; Kuehl, 2018; Martin & Dismuke, 2017; Myers et al., 2016; Scales et al., 2019), none of the TPP studies definitively included one of the originally identified writing theories in WMI. Without providing details, in an exploration of required literacy courses across seven states, Brenner and McQuirk (2019) found nine of 155 course descriptions implied an emphasis on theory, among several other topics. Among the included studies, one exception to incorporating a theoretical framework into WMI, critical-affective theory, was identified in Cartun and Dutro, 2020.

Transcription Skills

We coded for WMI for the following transcription skills: handwriting including letter formation ($k = 1$), spelling ($k = 3$), grammar and mechanics/conventions (capitalization and punctuation; $k = 9$), keyboarding/typing ($k = 1$), and computer technology use including word processing ($k = 0$).

Translation Skills

Translation skills were categorically coded as noted in Table 2: sentence structure/syntax ($k = 5$), morphology ($k = 0$), vocabulary use in context/word choice ($k = 2$), the writing process ($k = 16$), purpose ($k = 6$), audience awareness ($k = 6$), and genre study ($k = 16$). Writing process and genre study both comprised subcategories which will be discussed in greater detail.

Table 2*Translation Skills TPP WMI*

	Genre										
	Sent	Morph	Vocab	Writ proc	Purpose	Aud awar	Info/ expos.	Opin./ pers.	Narr./ story	Poetry	Other or not specified
Braden & Gibson (2021)	.	.	.	✓	✓	.	✓	.	✓	✓	.
Brenner & McQuirk (2019)	.	.	.	✓	✓
Cartun & Dutro (2020)	✓	.
Colwell (2018)	.	.	.	✓	.	✓	✓
DeFauw & Smith (2016)	.	.	.	✓	✓	✓	✓	.	✓	✓	.
Fry & Griffin (2010)	✓	.	.	✓	✓	.	.
Gair (2015)	✓	.	.	✓	.	.	✓	✓	✓	✓	✓
Grisham & Wolsey (2011)	✓	.	✓	✓	✓	✓
Hawkins et al. (2019)	✓	.	.	✓	✓	✓	✓	✓	✓	✓	✓
Kelley et al. (2007)	✓	✓
Knight & Block (2019)	.	.	.	✓	.	✓	✓	.	✓	.	.
Kuehl (2018)	.	.	.	✓
Martin & Dismuke (2017)	.	.	.	✓	✓	✓	✓
McQuitty & Ballock (2020)	.	.	.	✓	.	.	✓	✓	✓	.	.
Myers & Paulick (2020)	.	.	✓	✓	✓	.	.
Myers et al. (2016)	.	.	.	✓	✓
Painter (2016)	.	.	.	✓
Scales et al. (2019)	.	.	.	✓	✓	✓	✓

Writing Process

Almost all the included TPP studies ($k = 16$) indicated that writing process was included in WMI (see Table 2); however, the stages of the writing process varied in description. Seven of the TPP studies did not provide details about components of the writing process, they just noted that writing process was addressed. The other nine studies focused on anywhere from two phases (i.e., revising and editing; Gair, 2015) to all six phases.

Genre

As shown in Table 2, genre was categorized as follows: information/expository ($k = 6$), persuasive/opinion ($k = 3$), narrative ($k = 8$), and poetry ($k = 5$). Nine studies noted genre instruction in general or stated “various” or “many” genre types were included in WMI but did not name them. Two subgenres were identified in TPP studies, functional (Gair, 2015) and procedural (Knight & Block, 2019).

Assessment

Sixteen studies noted including instruction on student writing assessment as part of WMI (see Table 3). The most frequently mentioned form of assessment was adult conferencing and feedback ($k = 8$), followed by peer conferencing and feedback ($k = 7$), rubrics ($k = 4$), self-portfolios ($k = 2$), self-assessments ($k = 1$), and student dialogue journals ($k = 1$). Three studies mentioned assessments were part of WMI but did not include specifics.

Table 3

WMI Assessment in TPP Studies

	Adult assessment	Peer assessment	Other
Brenner & McQuirk (2019)			assessments mentioned in general
Cartun & Dutro (2020)	teacher conferences		
Colwell (2018)		peer feedback	
DeFauw & Smith (2016)	adult conferences		
Fry & Griffin (2010)	adult conferences and feedback	peer revising conferences	rubrics

Table 3 (cont'd)

Gair (2015)	adult conferences for ongoing feedback	peer conferences and feedback with “receive the piece”	
Grisham & Wolsey (2011)			6-Trait rubric
Hawkins et al. (2019)	adult conferencing and feedback		summative assessments for growth
			grade-level standards and criteria rubric
Knight & Block (2019)	teacher conferencing		
Kuehl (2018)	teacher conferencing		student dialogue journals
Martin & Dismuke (2018)			assessments mentioned in general portfolio
McQuitty & Ballock (2020)		peer feedback with “receive the piece”	
Myers & Paulick (2020)	teacher conferences and feedback	peer conferences and feedback	
Myers et al. (2016)		peer conferences and feedback	rubrics
Painter (2016)			portfolios
Scales (2019)		peer conferences	self-assessment

Strategy Instruction

If present, strategy instruction was coded into five categories: (1) comprehensive writing instruction, (2) strategy instruction, (3) self-regulation and metacognitive reflection, (4) setting product goals, and (5) one or more specific strategy models. One study incorporated comprehensive strategy writing instruction provided through a university course that included a clinical teaching requirement (Painter, 2016). Six studies noted elements indicative of explicit and systematic strategy instruction, and two studies included self-regulation and metacognitive reflection in WMI instruction (see Appendix B). One study also included student-directed goal setting (Painter, 2016) and another study incorporated teachers setting goals for individual students (Kuehl, 2018). Two specific writing strategy models were named as being included in WMI. They include 6 Traits (or 6 + 1 Traits; Fry & Griffin, 2010; Grisham & Wolsey, 2011) and Self-regulated Strategy Development (SRSD; Painter, 2016).

Classroom Practices

Results of classroom practices included in WMI in TPPs are included in Table 4. Only one TPP study noted providing additional time for writing and creativity instruction. Another identified increasing motivation by reinforcing positive student attitudes and beliefs toward writing as part of WMI in courses. Three noted authentic and relevant writing tasks were part of WMI. Four studies included instruction on free writing, primarily in the form of quick writes. Peer collaboration ($k = 6$), teacher modeling ($k = 10$), and utilizing text models ($k = 9$) were the most frequently mentioned classroom practices in TPPs.

Table 4

Frequent Classroom Practices in TPP

	Frequently included classroom practices
Braden & Gibson, 2021	Peer collaboration, utilizing text models, free writing
Cartun & Dutro (2020)	Utilizing text models
Colwell (2018)	Teacher modeling, utilizing text models
DeFauw & Smith (2016)	Teacher modeling, authentic and relevant writing tasks
Fry & Griffin (2010)	Peer collaboration
Gair (2015)	Teacher modeling, utilizing text models, authentic and relevant writing tasks
Hawkins et al. (2019)	Teacher modeling, utilizing text models, creativity instruction, additional time
Kelley et al., (2007)	Peer collaboration
Kuehl, 2018	Motivation by providing positive comments
Martin & Dismuke (2018)	Peer collaboration, teacher modeling
McQuitty & Ballock (2020)	Teacher modeling, utilizing text models
*Myers & Paulick (2020)	Teacher modeling, utilizing text models, free writing
*Myers et al. (2016)	Teacher modeling, utilizing text models
Painter (2016)	Peer collaboration, teacher modeling, free writing
*Scales (2019)	Peer collaboration, teacher modeling, utilizing text models, authentic and relevant writing tasks, free writing

*Studies included multiple TPPs

Writing Difficulties, Adaptations, and Accommodations

Instruction on adaptations and accommodations was not clearly stated as such across the included TPP studies; however, evidence of instruction addressing needs of students with writing difficulties was embedded in several. One article centered around education interns providing supplemental instruction to an at-risk population of writers via a computer-based summer writing program focused on keyboarding and conventions, providing an inherent adaptation for both the

environment and instruction (Painter, 2016). Many studies noted that teacher candidates should understand the need for differentiating writing instruction but did not provide instruction on how to do so (see Gair 2015; Grisham & Wolsey, 2010; Kuehl, 2018; Martin & Dismuke, 2017; Scales et al., 2019). Through a search of titles and descriptions from 42 elementary teacher education programs across seven states, Brenner and McQuirk (2019) located a course titled “Differentiated Literacy Instruction” but included no details. Finally, coding for choice of topic yielded several results noted in the studies; however, in all circumstances choice of topic was noted as a motivation for writing instruction, not as a form of an adaptation for tasks and materials for students with writing difficulties (Braden & Gibson, 2021; Colwell, 2018; Grisham & Wolsey, 2011; Martin & Dismuke, 2017; McQuitty & Ballock, 2020; Scales et al., 2019).

Research Question 2: What topics are included in writing methods instruction in professional development opportunities for elementary and special education in-service teachers?

The second research question focused on WMI provided through PD opportunities to in-service teachers. The same process and coding categories were applied to information from the 14 included PD studies. Results are summarized in Appendix B.

General PD Study Information

Among the WMI PD studies, participation in professional learning was predominantly voluntary with the exception of Levitt (2014) in which the PD was required. The included studies differed in how they reported on the PD provided. Most included studies centered around WMI PD provided at the school or district level or included more random participants that are described in Table 5. Two studies explored project-based professional development (PBPD) in SRSD, a model that provides continued support to recently trained teachers (Gillespie-Rouse &

Kiuhara, 2017; McKeown et al., 2014), and provided descriptions of what was included in the PBPD. A third study explained SRSD and detailed the elements included in training (Harris et al., 2017).

Table 5

PD Study Demographics

	Participant(s)	Training	Identified WMI Framework
Akhavan & Walsh, (2020)	123 K-8 classroom teachers in multiple districts between 2002-2007 and 2012-2019	4 days (2002-2013) during the summer (2014-2019)	CALA
Bifu-Ambe (2013)	23 elementary, 2 special ed teachers, 2 reading specialists, 1 coach, in one school district	10 sessions over 10 weeks	
Brindle et al. (2015)	157 grade 3 rd - 4 th teachers across the country	Varied from 1-9 hours	
Collopy (2008)	4 th grade teachers in 1 district	16.5 - 24 hours	6 Traits Analytic Training Model
Dismuke (2015)	12 K-6 teachers across 5 districts	16-week course, over 50 hours	
Fearn & Farnan (2007)	Grades 2-6 in 5 settings	1-year program	
Gillespie Rouse & Kiuhara (2017)	Review of studies	2 days (14-16 hours)	PBPD in SRSD
Harris et al. (2017)		12-14 hours	SRSD
Koster et al. (2019)	31 teachers trained, who they trained 37, all upper elementary	2 training sessions, 8 hours total	<i>Tekster</i>
Kramer-Vida & Levitt (2010)	Kindergarten classrooms	In-class demos and once/month meetings	Training in Writers' Workshop
Levitt et al. (2014)	Seven first grade classrooms	In-class demos and once/month meetings	Training in Writers' Workshop
McKeown et al. (2019)	20 grade 2/3 teachers in 3 schools	12-14 hours over 2 days	SRSD
McKeown et al. (2014)	Review of studies	2 days	PBPD in SRSD
Troia et al. (2011)	6 2 nd – 5 th grade teachers	Training in prior year	

Writing Theory

Similar to the TPP studies, theory was referenced as a framework for the studies but was not described as being part of the WMI directly provided to in-service teachers. Within the PD studies, Akhavan & Walsh's (2020) cognitive apprenticeship was based in sociocultural roots. Another study based was on cognitive-behavioral theory which is more closely aligned to the cognitive process theory noted in the codebook (Gillespie Rouse & Kiuhara, 2017).

Transcription Skills

PD studies also did not include WMI on handwriting ($k = 0$). Harris et al. (2017) noted that transcriptions skills, although not addressed within the PD provided for the SRSD framework, could be embedded in instruction. While teacher participants in a study by Troia and colleagues (2011) were not provided PD on transcription skills, the teachers did rate these skills as important. Spelling ($k = 3$) and grammar and mechanics/conventions (capitalization and punctuation) ($k = 6$) were present in the PD studies like they were in the TPP studies.

Translation Skills

Translation skills were categorically coded for PD WMI studies in the same way as the TPP studies: sentence structure/syntax ($k = 9$), morphology ($k = 0$), vocabulary use in context ($k = 6$), the writing process ($k = 13$), purpose ($k = 9$), audience awareness ($k = 7$), and genre study ($k = 13$). The writing process and genre study both comprised subcategories that will be shown in greater detail in Table 6.

Table 6

Translation Skills PD WMI

	Genre										
	Sent	Morph	Vocab	Writ proc	Purpose	Aud awar	Info/ expos.	Opin./ pers.	Narr./ story	Poetry	Other or not specified
Akhavan & Walsh (2020)	✓	.	.	.	✓	.	.	✓	✓	.	✓
Bifu-Ambe (2013)	.	.	.	✓	.	.	.	✓	✓	.	.
Brindle et al. (2015)	✓	.	.	✓	.	.	✓	✓	✓	.	.
Collopy (2008)	✓	.	.	✓	✓	✓	✓	.	✓	.	.
Dismuke (2015)	.	.	.	✓	✓	✓
Fearn & Farnan (2007)	✓	.	✓	✓	✓	.	✓	✓	.	.	✓

Table 6 (cont'd)

Gillespie Rouse & Kiuahara (2017)	.	.	✓	✓	✓	✓	✓	✓	.	.	.
Harris et al. (2017)	✓	.	✓	✓	✓	✓	✓	✓	✓	.	.
Koster et al. (2017)	.	.	.	✓	✓	✓	✓	✓	✓	.	✓
Kramer-Vida & Levitt (2010)	✓	.	.	✓	✓	.	✓
Levitt et al. (2014)	✓	.	.	✓	✓	✓	✓	.	✓	✓	✓
McKeown et al. (2019)	✓	.	✓	✓	.	.	.	✓	✓	.	.
McKeown et al. (2014)	✓	.	✓	✓	.	✓	✓
Troia et al. (2011)	.	.	✓	✓	.	✓	✓	.	✓	✓	✓

Writing Process

All but one of the PD studies (Akhavan & Walsh, 2020) included some instruction on, or reference to, the writing process (see Table 6). Three of the PD studies followed the writing process steps incorporated in 6 Traits (or 6+1 Traits), four studies were grounded in the writing process steps outlined in SRSD, and one was similarly focused but scaffolded steps by grade level (Koster et al., 2017). Two studies noted that writing process was addressed in PD without providing details while three identified specific steps in the process from prewriting/planning through publishing.

Genre

Similar to the TPP studies, genre categories for the PD studies included: information/expository ($k = 9$), persuasive/opinion ($k = 8$), narrative ($k = 9$), and poetry ($k = 2$; see Table 6). Two studies referenced genre instruction in general terms such as writing across genres (Dismuke, 2015) or studying genre-specific characteristics, vocabulary, and mnemonics (McKeown et al., 2014). Several subgenres were identified in PD studies such as

autobiographical writing (Fearn & Farnan, 2007), instructive text and personal communication (Koster et al., 2017), lost and found posters or “how to” informational pieces (Kramer-Vida & Levitt, 2010), and fairy tales (Levitt et al., 2014).

Assessment

Thirteen studies noted including instruction on student writing assessment as part of WMI (see Table 7). The most frequently mentioned form of assessment was adult conferencing and feedback ($k=10$), followed by self-assessment/self-monitoring ($k=6$), peer conferencing and feedback ($k=5$), rubrics ($k=5$), portfolios ($k=1$), and quick writes for formative assessment ($k=1$).

Table 7

WMI Assessment in PD Studies

	Adult assessment	Peer assessment	Other
Akhavan & Walsh, (2020)	adult feedback/ conferencing		
Bifu-Ambe (2013)	adult conferencing		portfolios and rubrics
Brindle et al. (2015)			rubric
Collopy (2008)			rubrics for teacher and self- assessment
Dismuke (2015)	adult verbal or written feedback/conferencing		
Fearn & Farnan (2007)			quick writes for formative assessment
Gillespie Rouse & Kiuvara (2017)	teaching conferencing	peer conferencing	self-monitoring/self-assessment
Harris et al. (2017)	teacher conferencing	peer conferencing	self-assessment
Koster et al. (2019)	adult feedback/ conferencing	peer conferencing	
Levitt et al. (2014)	teacher feedback/ conferencing		rubrics
McKeown et al. (2019)	teacher conferencing		self-assessment
McKeown et al. (2014)	adult feedback	peer feedback	rubric, self-assessment
Troia et al. (2011)	teacher conferences	peer conferences	self-assessment

Strategy Instruction

The same five strategy instruction coding categories were applied to the PD studies: (1) comprehensive writing instruction, (2) strategy instruction, (3) self-regulation and metacognitive reflection, (4) setting product goals, and (5) one or more specific strategy models. Five studies

included comprehensive writing instruction (Gillespie Rouse & Kiuahara, 2017; Harris et al., 2017; Koster et al., 2017; McKeown et al., 2019; McKeown et al., 2014). Four studies noted training indicative of elements of strategy instruction (Akhavan & Walsh, 2020; Bifu-Ambe, 2013; Brindle et al., 2015; Troia et al., 2011), and two studies included self-regulation and metacognitive reflection in WMI instruction (Akhavan & Walsh, 2020; Dismuke, 2015). Three studies identified teachers had been trained in all or part of the 6 Traits (or 6+1 Traits) model (Bifu-Ambe, 2013; Brindle et al., 2015; Collopy, 2008). Four studies included PD training in SRSD (Gillespie Rouse & Kiuahara, 2017; Harris et al., 2017; McKeown et al., 2019; McKeown et al., 2014) and Koster (2017) included an additional strategy model called *Tekster*.

Classroom Practices

Classroom practices included in WMI in PD are noted in Table 8. One study included free writing as a classroom practice, and another noted creativity instruction. Two studies identified increasing motivation by reinforcing positive student attitudes and beliefs toward writing as part of WMI in PD. Three noted authentic and relevant writing tasks were part of WMI. Utilizing text models ($k = 6$), peer collaboration ($k = 7$), and teacher modeling ($k = 7$), were the most frequent classroom practices included in PD.

Table 8

Frequent Classroom Practices in PD

	Frequently included classroom practices
Akhavan & Walsh (2020)	Teacher modeling, utilizing text models, authentic and relevant writing tasks
Bifu-Ambe (2013)	Creativity/imagery instruction
Collopy (2008)	Teacher modeling
Dismuke (2015)	Peer collaboration, authentic and relevant writing tasks
Gillespie Rouse & Kiuahara (2017)	Peer collaboration, teacher modeling, utilizing text models, authentic and relevant writing tasks, motivation
Harris et al. (2017)	Peer collaboration, teacher modeling, utilizing text models
Koster et al. (2017)	Teacher modeling, utilizing text models
Levitt et al. (2014)	Peer collaboration, utilizing text models
McKeown et al. (2019)	Peer collaboration, teacher modeling
McKeown et al., (2014)	Peer collaboration, teacher modeling, utilizing text models, motivation
Troia et al. (2011)	Peer collaboration

Writing Difficulties, Adaptations, and Accommodations

The included articles addressed adaptations and accommodations with WMI through the broader lens of differentiation rather than identifying specific ways to accomplish this for all students. In Levitt (2014), the PD taught teachers to differentiate instruction during conferencing. Dismuke (2015) mentions that teacher participants experienced differentiation in the PD. Koster et al. (2017), who provided training in a writing framework called *Tekster*, which is structured in a similar fashion to SRSD, includes differentiation for both weaker and stronger writers. The four included SRSD studies integrate differentiation within the writing framework explaining differentiation for struggling writers (Gillespie Rouse & Kiuahara, 2017), including both *what* to differentiate and *how* to differentiate (Harris et al., 2017). McKeown et al. (2019) includes WMI adaptations for lessons, materials, and pacing based on student needs. McKeown et al. (2014) adds on instruction for how to differentiate not only teaching writing but also to address behaviors related to writing.

Discussion

This systematic review of the extant literature examined how teachers are prepared to teach writing either in educator preparation programs or through professional learning opportunities. While the results show that some components of WMI are consistently included in TPP and/or PD preparation, unfortunately but not surprisingly, the results also show some minimal attention to or complete omission of important elements.

Teacher preparation to teach writing will be improved when the amount of time devoted to their preparation increases. The lesser prioritization of WMI, the greater the concern and the results here justify concern. Of the 18 included studies covering TPP programs, three reported findings of survey results from multiple college/university courses. Myers and Paulick (2019)

reported 5 of 13 institutions (38%) offered writing methods courses. In Myers et al. (2016), 28% of the literacy methods courses were stand-alone writing methods courses. The third study by Scales et al. (2019) only surveyed individuals who taught writing methods courses, so all eight courses in that study were dedicated to WMI. While 10 of the other 15 studies included in this review reference writing-focused, writing instruction, or writing methods courses, not all are focused on teaching writing pedagogy. For instance, one course titled “Writing for Elementary Educators” focuses on developing teachers as writers and does not teach them to implement pedagogical techniques (McQuitty & Ballock, 2020). Based upon the information provided, only about a third of those courses were required for elementary teachers and a significantly smaller number were required for special education teachers. There is a critical need for a writing methods course to be included in every TPP (Martin & Dismuke, 2018). It does not appear this is the case yet, but the studies referencing writing-focused courses were all published between 2015-2021. Perhaps this is a trend in the right direction.

What is Included in WMI

Overall, spelling is minimally included in WMI in both TPPs and PD, while grammar and mechanics/conventions as well sentence structure/syntax are moderately included in both.

Vocabulary instruction in context is taught more often in PD than TPP courses. Writing process topped the list of translation skills in both TPP and PD. This instruction often included preservice and in-service teachers experiencing the writing process in the course or PD (Braden & Gibson, 2021; Colwell, 2018; Bifu-Ambe, 2013); however, not all courses or PD required participants to write (Bifu-Ambe, 2013).

Genre-based instruction is commonly built into WMI, with TPPs incorporating narrative ($k = 8$) and informational ($k = 6$) most often, and PD also featuring the same two genres equally

($k = 9$) as the most commonly taught. Audience awareness and purpose were integrated into WMI for preservice educators to deepen their understanding of the importance and the pedagogical approaches to addressing these considerations with future students. Braden and Gibson (2021) approached purpose in WMI in a unique manner by weaving culturally sustaining instruction into writing methods. Specifically, PSTs in a WMI course who were paired with fifth grade pals explored sociopolitical issues of concern and wrote critical nonfiction texts together to be used as mentor texts. In another unique approach to incorporating purpose into WMI, Cartun and Dutro (2020) also paired preservice educators with children. Both the teacher candidates and elementary students learned that writing is humanizing, requires vulnerability, and involves collective risk. The PSTs enrolled in this writing methods course learned to use writing to become attuned to critical moments with third graders in impactful ways. In this way, the teacher candidates learned the importance and purpose of teaching writing as a tool to build connection, deepen relationships, and foster advocacy.

Narrative writing was the most frequently taught genre in TPP with informational writing coming in second. In PD, narrative and informational writing tied. Instruction on writing assessment was included often in both TPPs and PD, primarily in the form of conferencing and feedback, both with adults and peers, and rubrics. Self-assessment was notably higher in PD than TPP, likely due to the greater inclusion of comprehensive writing instruction that includes a self-regulation component. The 6 Traits model, incorporated in both TPPs and PD, and SRSD, almost exclusively present in PD studies, were the two dominant writing frameworks. There was only one occasion where SRSD was incorporated in a TPP as part of an internship involving teaching a summer program (Painter, 2016). Finally, neither preservice nor in-service teachers received much instruction on ways to provide adaptations or accommodations for students with writing

difficulties. The broader umbrella of differentiation was mentioned with some consistency but generally it was listed as something teachers should know to do but did instruction about how to do it was not explicitly provided.

It is not surprising with the heavy emphasis on process writing previously noted that Writing Workshop appeared frequently in both TPP and PD studies as either already existing in a classroom or serving as a focal point to frame writing instruction in the classroom. Preservice teachers completed field work during Writing Workshop time (Braden & Gibson, 2021; Cartun & Dutro, 2020) and TPP courses (Colwell, 2018; DeFauw & Smith, 2016; Gair, 2015; Hawkins et al., 2019; Kelley et al., 2007; Martin & Dismuke, 2017) teach Writing Workshop, sometimes implementing it within their courses. Survey results gathered in Myers and Paulick (2019) and Myers et al. (2016) also showed multiple courses incorporated Writing Workshop into WMI for TPP. Studies of PD either focused on providing instruction on how to integrate a Writing Workshop model (Kramer-Vide & Levitt, 2010; Levitt et al., 2014) or examined how the Writing Workshop model was implemented and offered insight into its efficiency (Bifu-Ambe, 2013; Troia et al., 2011).

What is Not Included in WMI

Both TPPs and PD offerings either completely omitted or only minimally included certain WMI elements. These omissions or scant appearances included writing theory, handwriting or typing/keyboarding skills, and morphological instruction.

Writing Theory

Writing theory may be more researcher-focused rather than classroom teacher-focused because studies identified the theoretical framework upon which they were based, but results show that writing theory is not explicitly conveyed to participants in these studies. Were teachers

to better understand the theoretical underpinnings of writing development, they might also understand the importance of explicit writing instruction as well as the ease of integrating writing instruction with reading instruction, the cross-curricular benefits of teaching writing, and the community-building opportunities a collective group of writers can create. This could result in increased time spent on writing instruction. One study by Cartun and Dutro (2020) did incorporate a theory in the instruction provided. Their course was framed in and included instruction on critical-affective theory which they describe as centering adults modeling writing in a vulnerable and risk-taking manner to build connections with students and invite them to do the same. While this theory blends social cognitive and sociocultural components, the more specific purpose of teaching writing in this manner is to make affective moments visible. Additionally, writing theory was highlighted when Myers and Paulick (2020) surveyed teacher educators finding only 24% of respondents felt PSTs should understand the theory behind writing instruction. Writing theory is noticeably absent from almost all WMI in both TPPs and PD.

Spelling, Handwriting, and Keyboarding Skills

Turning to the lack of explicit transcription skill instruction, this seems peculiar given spelling is often taught in classrooms, yet teacher candidates and in-service teachers are not receiving instruction on how to teach spelling. Building on the well-established interconnection between reading and writing (Graham & Hebert, 2011), spelling instruction can be taught together with phonemic and morphological instruction. Although questions around the value of spelling instruction persist in this day of readily available technological assistance, it is still an important component of literacy development (Harris et al., 2017; Pan et al., 2021). Additionally, many preservice educators express a lack of self-efficacy in spelling and grammar instruction

(Helfrich & Clark, 2016), yet about half of the included studies allude to grammar being included in WMI. Grammatical pedagogical knowledge is more important in teaching and learning about writing than grammatical content knowledge (Myhill et al., 2013). Unfortunately, the results of this review imply that neither grammatical pedagogical nor content knowledge is creating teacher candidates who are knowledgeable or confident about teaching grammar.

Morphological Instruction

Morphological instruction improves not only use and spelling of morphologically complex words, it also improves sentence writing (Kirby & Bowers, 2017; see also McCutchen et al., 2013). English is a morphophonemic language and, as such, morphological instruction highlights the interconnectedness of phonology, morphology, and orthography (Kirby & Bowers, 2017), thereby improving literacy development in both reading and writing. The complete absence of morphological instruction from any of the included studies is a missed opportunity. Much like these studies suggest colleges/universities and schools do not include it in their teacher preparation courses or PD, the students of these educators likely did not receive instruction in morphology either. If teachers do not have knowledge about or competence with morphological instruction, either from their own experiences or specifically through TPPs or PD, they cannot teach it to their students.

Varied Purpose of WMI Studies

Across the included studies, different purposes for exploring WMI emerged: (1) studies reviewing programs or courses that include WMI; (2) studies reporting what is and should be included in WMI courses or PD; and (3) studies that include a strong practical application of WMI.

Review of Numerous Programs and Courses

Four studies included reviews of multiple TPP courses or PD programs identifying elements of WMI included in those courses and programs. Brenner and McQuirk (2019) reviewed titles and descriptions of 155 elementary education courses across 42 TPPs located in seven states. Information was gleaned only from course titles and descriptions found on websites or in course catalogs, thus information available is broad. Myers et al. (2016) collected information from 63 teacher educators representing 50 university-based educator programs. Because teacher educators completed the surveys, the information about frequency and context of WMI was more detailed. Fifty-four (85.7%) of the teacher educators who responded reported learning about WMI through self-study. In other words, they did not have formal preparation themselves to teach future educators about WMI. Myers and Paulick (2020) also surveyed instructors of writing methods courses, questioning how they made instructional decisions in WMI courses. Responses came from 13 colleges/universities and provided insight into WMI course content. Finally, Scales and colleagues (2019) surveyed eight elementary-level WMI teacher educators across six states who were known for providing exemplary writing instruction. Collectively, these studies provided information about more than 100 TPPs and over 230 courses, all sharing concerns about the amount of WMI preparation preservice educators receive.

Brindle et al. (2016) randomly surveyed fourth grade teachers across the country inquiring about writing instruction they provided to students. This study noted that 76% of teacher respondents reported they received minimal to no WMI in their college education courses, leaving 24% feeling adequately or extensively prepared through their TPPs. The survey also collected information teachers reported about all WMI preparation, meaning both TPPs and PD. These results showed a much greater percentage of teachers, 78%, being adequately or

extensively prepared. Considered with the above-noted studies, it is evident preservice and in-service teachers still do not receive sufficient WMI, but the data from Brindle and colleagues (2016) suggests teacher respondents received more WMI preparation from PD than in TPPs.

What WMI Is and Should Be

Through detailed examinations, several studies addressed what was and should be included in WMI courses or PD. Commonly identified topics included understanding the writing process (Fearn & Farnan, 2019; Harris et al., 2017; Hawkins et al., 2019; Kramer-Vida & Levitt, 2010; Levitt et al., 2014; Myers & Paulick, 2020; Scales et al., 2019) and the Writers Workshop format, including minilessons for skill development and daily writing (Hawkins et al., 2019; Kramer-Vida & Levitt, 2010; Levitt et al., 2014; Myers & Paulick, 2020). Other topics emerged as important to include in TPP and PD, including lesson planning (Myers & Paulick, 2020; Scales et al., 2019), and educators seeing themselves as writers (Hawkins et al., 2019; Myers & Paulick, 2020; Scales et al., 2019). Within the studies that prioritized specific components of WMI, genre instruction (Hawkins et al., 2019; Harris et al., 2017; Scales et al., 2019) and learning to teach writing strategies were often noted (Hawkins et al., 2019; Harris et al., 2017; Myers & Paulick, 2020; Scales et al., 2019).

Practical Application of WMI

The opportunity for teacher candidates and in-service teachers to immediately practice what they learned was thread through several studies. This emerged from opportunities for participants to practically apply what they learned about teaching writing, and also to view themselves as writers. Five studies integrated having preservice educators directly interact with students either during or shortly after completing the WMI course. As an example, teacher candidates in an elementary literacy methods course explored culturally-sustaining writing

practices when they wrote beside their 5th grade pals to create meaningful nonfiction pieces in the study by Braden and Gibson (2021). In addition to learning about and teaching the full writing process and writing for an authentic purpose, the educators also engaged in anti-bias and culturally-sustaining instructional practices. Through this approach, the preservice teachers wrote mentor texts centering Black people's stories and students learned about the topics as well as the writer's craft. Cartun and Dutro (2020) also engaged preservice educators with students in their writing methods course, who were referred to as 3rd grade buddies. The teacher candidates created their own anchor texts rooted in small moments rich with vulnerability. They collaboratively planned and rehearsed writing mini-lessons and then subsequently taught them using their anchor texts during Writing Workshop. The focus of the mini-lessons varied, including, for example, writing hooks, but the overall goal of this WMI course was to build critical-affective practices through writing instruction. This example shows how a writing methods course included cross-curricular content and honed in on writing for a specific purpose.

The study by Kelley et al. (2007) had preservice teachers in a writing methods course who were placed as tutors in a service-learning context. Working with reluctant writers who lacked motivation became a challenging problem to navigate. The participants intentionally planned writing lessons mindful of the students' reluctance and the instructional content. Although this was more challenging than originally anticipated, reflection and support allowed the educators to develop a writing pedagogy that considered reluctant writers and motivation. Thus, the service-learning opportunity provided a unique learning situation for the preservice educators to gain critical experience and build reflective practice.

While interacting with students was a secondary goal of Kuehl (2018) after exploring how preservice teachers engaged in professional learning communities (PLCs), the candidate

teachers worked with 5th and 6th graders via online dialogue writing journals and then collaborated with their peers in the PLCs. Peer collaboration focused on differentiating writing instruction while learning about and participating in the writing process. The preservice teachers analyzed student journal responses and used ongoing assessments to meet individual learner needs (students included both strong writers from a gifted program and students in a summer enrichment program working on improving their writing). Another study presented a twist when fourth graders taught student teachers about the 6+1 Traits method as pen-pals (Fry & Griffin, 2010).

The Painter (2016) study was the only TPP study to incorporate SRSD. In this summer computer-based WMI program, graduate interns provided instruction to young struggling writers receiving special education services. The internship met the clinical teaching requirement for a reading course in the teacher licensure program. Interns provided instruction on keyboarding skills, conventions, the writing process, and self-regulation. Experience in this setting also included pre-assessment, providing writing interventions, and meeting with parents at the end of the program. The SRSD writing instructional framework was more commonly the basis for PD rather than embedded in a TPP course. Two PD studies examined PBPD with SRSD (Gillespie Rouse & Kiuvara, 2017; McKeown et al., 2014). This PD model provides teachers with knowledge of content and pedagogy through modeling and then allows practical classroom application in a cycle of learning, teaching, and receiving feedback.

Aside from these opportunities to apply learning directly to their work with students, preservice and in-service teachers also engaged in writing activities themselves to build their confidence and to view themselves as writers. They created their own anchor texts (Braden & Gibson, 2021; Cartun & Dutro, 2020), created books for children to read (Colwell, 2018), and

wrote for their own publication goals (DeFauw & Smith, 2016). Structuring a TPP course to develop teacher candidates as writers was the focus of McQuitty and Ballock (2020). In the TPP course, preservice teachers completed the same kinds of assignments they would teach children. Similarly, Hawkins and colleagues (2019) had preservice educators engage in writing “slice of life” stories when learning about the narrative genre and deepening understanding of what their students would be asked to do. All these studies presented situations that should benefit the future teachers by having similar writing experiences as their future students (Morgan, 2010).

Limitations and Future Research

There are several limitations of the current systematic literature review. First, the search of only peer-reviewed journals limits access to other publications that may have resulted in more articles being included. Additionally, by not including reports from government agencies, presentations, or books, pertinent and insightful information may have been overlooked. Finally, studies about TPP and PD for writing instruction that focus primarily on teacher perceptions of their preparedness were not included because they did not answer the research questions posited.

Future research could build on this review by coding for additional information beyond TPP course and PD content. A systematic literature review could expand on the questions here by incorporating more of the nuances of WMI building understanding of the impact and content of what is taught in TPP courses and PD in a broader sense. Suggestions might include coding for information about teacher perceptions of preparedness and self-efficacy as writers and teachers of writing since all of these are strong components of effective writing instruction. Additionally, including codes for when writing instruction is delivered could provide insight into teachers’ instructional practices and whether writing instruction is being integrated throughout the day, e.g., during a literacy block or writing workshop, and/or during subject area instruction. This

additional information would extend understanding beyond what teachers are learning about WMI to include how they are applying what they learn in their classrooms.

Conclusion

For more than two decades the educational community has been aware of the need to improve writing instruction in our schools. While there are different opinions about how to improve teacher preparation for writing instruction, the results of this systematic literature review show that it has not been prioritized enough, at least if the available research is any indication. Understanding that teachers need to feel confident in both their own writing abilities and their knowledge of writing instruction does not appear to be in dispute and TPPs and PD opportunities give opportunities to build both. Researchers continue deepening the understanding of what transpires in WMI courses and PD that results in teachers who are well-prepared to lead our next generation of writers. Some WMI courses and PD sessions create opportunities for teachers to receive continuous support while practicing what they are learning, uniquely situating them to continue building their knowledge and practice. Through these studies, it is evident there is an increase in contextualizing writing for purpose, relevance, and as a powerful means of communication. Continuing to build on the concepts of teacher efficacy, providing practical, supported opportunities for learning, and explicitly providing WMI to teachers heading to and already in the classroom must continue so educators can prepare successful, confident writers. We are making progress, but there is still a long way to go to create plentiful TPP courses and PD opportunities for current and future elementary and special education teachers.

CHAPTER 3:

A Survey Study of Teacher Preparation Programs on Writing Methods Instruction

The ability to write is as essential as the ability to read, whether an individual is preparing for college, career, or life in general (Sedita, 2013). Writing serves many purposes throughout a person's life, including providing a forum to persuade and inform (Graham, 2013). In school, writing provides a means to deepen and express knowledge, to grapple with new concepts, and to enhance reading comprehension (Troia, 2014; Bangert-Drowns et al., 2004; Graham & Perin, 2007a, 2007b; Graham & Hebert, 2011). Yet, despite evidence supporting the importance of writing, writing instruction does not receive the attention it should in schools. Several significant efforts have called for increased attention to writing instruction, including the 2003 report issued by the National Commission on Writing, created by the College Board. The Commission delineated a writing agenda for the nation, identifying 20 items that would be required to create a national writing revolution. Three of the 20 items were specifically directed to IHEs, drawing attention to prospective teachers. The initial and subsequent reports of the National Commission on Writing all emphasize that preservice teachers should be required to take courses that prepare them to teach writing (Myers et al., 2016). Another significant effort to bring about changes in writing instruction was the adoption of the CCSS in 2010, which many states either adopted outright or used as a basis for their own standards. In alignment with the recommendations of the Commission's report, the CCSS elevated the attention to learning outcomes in writing and infused writing instruction into the content areas. Despite these and other efforts, writing instruction is still not given the necessary time and attention required in most classrooms to facilitate the attainment of writing proficiency students should be able to achieve (Coker et al.,

2016; Cutler & Graham, 2008; Gilbert & Graham, 2010; Graham & Hebert, 2010; Puranik et al., 2014).

Why does writing instruction continue to fall short of what should be provided? There are likely many answers to this question, but two stand out. First, writing is a complex task that carries a tremendous cognitive demand, including planning and coordination of ideas with language (e.g., generating ideas, putting those ideas into words that convey the intended meaning, knowing and selecting appropriate vocabulary, organizing ideas), application of writing rules to communicate effectively (e.g., spelling, grammar, capitalization, punctuation), and the physical act of putting ideas on paper or screen by writing them with a stylus or typing them on a keyboard (Cormier et al., 2016). Teaching these components takes substantial time and expertise. With writing now being included on state assessments as well as college entrance examinations (Shanahan, 2015), it is even more important to prepare proficient writers. This is accomplished by incorporating evidence-based writing instruction and assessment practices throughout a student's academic career, by explicitly teaching stages of the writing process, and by allowing substantial time for students to practice their writing skills (Graham et al., 2012; Graham et al., 2011; Graham & Hebert, 2010; Graham & Perin, 2007; Sedita, 2013).

Second, there is a continued lack of focus on quality writing instruction, both in TPPs (Myers et al., 2016; Tulley, 2013; Totten, 2005) and in K-12 classrooms (Graham, 2019; Brindle et al., 2016; Cutler & Graham, 2008). Because many teachers practicing in classrooms today, and many who are studying to become teachers, likely did not learn to write in the context of strong classroom writing instruction, the question arises, when should they learn about writing methods instruction? We can infer this type of instruction is still not happening in many classrooms because student performance on the NAEP and on state assessments show low percentages of

students demonstrating writing proficiency (see below). Despite the realization that writing is a life-changing skill, it continues to receive insufficient attention from classroom teachers, present and future, and negatively affects the students they teach. This study explores to what extent TPPs require and/or offer writing methods instruction.

Why Does Teacher Preparation Matter?

Quality of teachers' writing instruction is correlated to several factors including preparation (Darling-Hammond et al., 2005), knowledge of content and pedagogical approaches (Ball, 2000; Darling-Hammond & Bransford, 2005; Shulman, 1987), and beliefs and attitudes (Fang, 1996; Woods, 1996; Troia, in press). In fact, some studies determined that beginning educators carried the writing knowledge, skills, and dispositions from their teacher preparation into their practice (Martin & Dismuke, 2018; see also Grossman et al., 2000; McQuitty, 2012). It could be rationalized that each of these factors could be strengthened through writing methods instruction provided in a TPP, i.e., preparation overall would be strengthened, knowledge of content and pedagogical approaches would be broadened and deepened, and beliefs and attitudes toward teaching writing would be improved by having more dedicated attention in TPP to writing and writing instruction. But, writing instruction has been a neglected focal point of TPPs for a substantial amount of time (Morgan & Pytash, 2014; National Commission on Writing, 2003; see also Hillocks, 2006; Smagorinsky, 2010; Tremmel, 2001). Thus, it is less likely that current preservice teachers received this kind of instruction during their early learning years. Teachers cannot teach what they do not know (Binks-Cantrell et al., 2012).

Research shows the majority of practicing and preservice teachers, as well as teacher educators, are not well-prepared to deliver writing lessons and feedback to students due to their own insufficient level of knowledge of the structures and functions of language that underlie

learning to read or write (Troia, in press; Joshi et al., 2009; McCutchen & Berninger, 1999; Parr et al., 2007; Washburn et al., 2011). Moreover, many of today's practicing and preservice teachers did not receive strong writing instruction when they were students (Dismuke, 2015). If they did not have adequate early experiences learning to write, and they do not receive instruction in writing methods during their college preparation courses, they will not be prepared to teach writing to their own students. When teachers do have the requisite knowledge, their students demonstrate greater gains (Troia, in press; Joshi et al., 2009; McCutchen & Berninger, 1999; Parr et al., 2007; Washburn et al., 2011).

The most obvious reason for improving writing methods instruction in TPPs is so future educators can adequately prepare K-12 students to become proficient writers. Student writing performance remains stagnant, at best (Graham, 2013). As the primary means of assessing students' academic achievement at a national level, NAEP scores do not provide a favorable picture of students becoming proficient writers. Available data is not current; in fact, it is at least 10-20 years old depending on the grade. The data we do have suggests only about a quarter of 8th and 12th grade students scored proficient or above. This supports the deprioritization and lack of recognition of writing as a significant skill in schools and beyond. It is critical that students become proficient writers so they are prepared when they enter the workforce regardless of the path they take in their post-secondary lives (National Commission on Writing, 2004). The preparation of K-12 students falls to educators, and the preparation of those educators lies in their TPPs. In other words, educators need to have the pedagogical and content knowledge to prepare students as writers, and TPPs provide the time and opportunity for that preparation (Morgan & Pytash, 2014).

What Does Writing Methods Instruction Include?

As the data demonstrate, we have a national writing problem. “If we are going to fix our writing problem, we have to start at the beginning: with the foundational skills in the early grades that prepare students for higher-level thinking and writing” (Graham, 2013, p. 3). The term “writing methods instruction” as used in this study incorporates a broad array of concepts, from the most basic yet essential lower-order skills such as letter formation, to higher-order skills involving the intricacies of various complex text structures of genre-specific writing. The term is used to reflect the progression of skill development. “Writing methods instruction” includes any or all the following components: writing theories, writing development including transcription and translation skills, reading-writing connections, evidence-based instruction and assessment practices, and student writing adaptations, problems, or disabilities. While many teachers are unfamiliar with the theories underlying writing instruction, the research-based practices that should be implemented in their classrooms would be made more coherent if they understood the theories behind those practices (Hodges, 2017). Transcription and translation skills are described in the Simple View of Writing (Berninger et al., 2002), which, in reality, is anything but simple. This model posits that within the context of one’s working memory, writing development can be represented by transcription skills and self-regulation/executive functioning as foundational for enabling text generation (translation). Both transcription and translation skills encompass multiple discrete learning targets as outlined in the learning progression figures below. Figure 3 (reprinted by permission, St. Martin et al., 2020) frames a learning progression for teaching transcription skills including handwriting, spelling, conventions, and keyboarding. The progression uses a green arrow that aligns with the grade level shown along the top to indicate when these learning targets should be introduced and formally taught. The symbols that follow to

the right of the green arrow indicate that informal skill acquisition may continue through ongoing use, skill refinement, and by transferring the skills to new contexts. Similarly, the translation learning targets shown in Figure 4, which include grammar, sentence structure, the writing process, and text structure, demonstrate the progression of instruction and acquisition of this set of competencies. These are integral learning targets for students to acquire and methods instruction covering all the component should be taught to teachers, both present and future.

Figure 3

Learning Progression of Transcription Skills

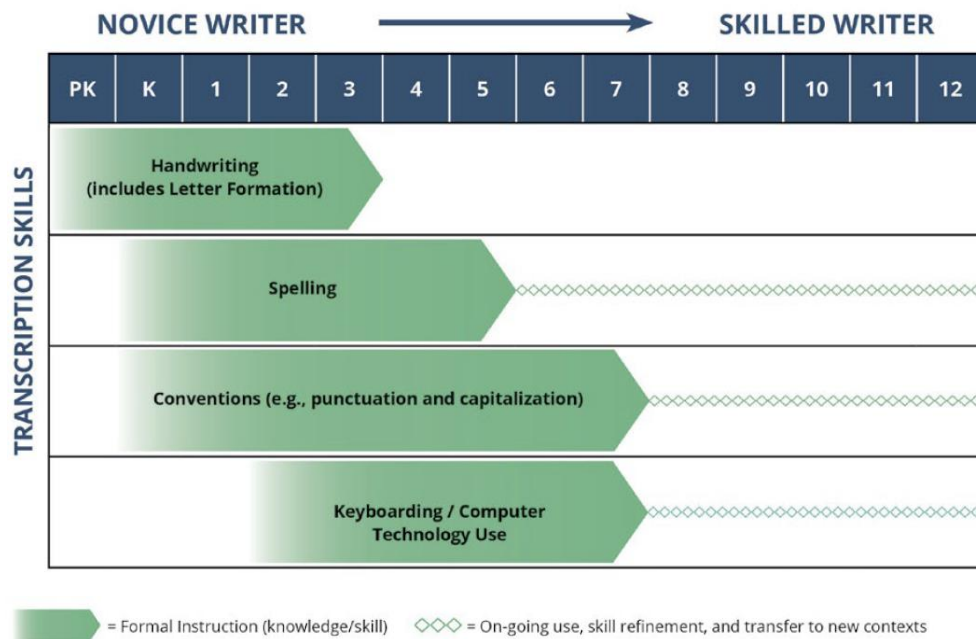
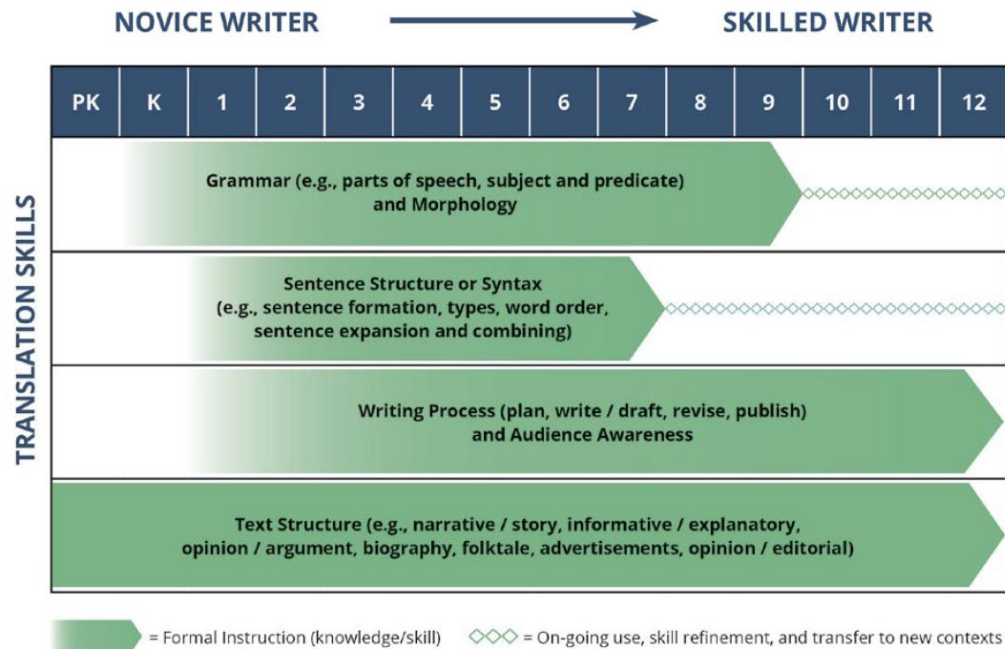


Figure 4

Learning Progression of Translation Competencies



In addition, writing methods instruction should include the strong connection between reading and writing (Graham & Hebert, 2011). Much emphasis has been placed on reading instruction (e.g., National Reading Panel, 2000), but research shows that writing also facilitates word reading and reading comprehension (Graham & Santangelo, 2014; Graham & Hebert, 2011; Bangert-Drowns, et al., 2014). Writing is also a significant predictor of reading achievement on state assessments (Jenkins et al., 2004). Both reading and writing must be taught along a learning continuum (Coker, 2006; Shanahan & Lomax, 1986, 1988), but Shanahan (2009) insightfully questions how children will be able to realize the reading benefits that come from writing if writing instruction is delayed or not provided. It is essential to students' literacy development that reading and writing instruction are complementary.

Once current and future educators have a firm understanding of writing skills progressions, they will be better able to identify when students are struggling. Knowledge of

evidence-based practices for all their students, including those who may encounter difficulties, also should be addressed by TPPs (Troia, 2014). While some evidence-based practices are not unique to writing instruction (e.g., peer collaboration, teacher modeling), others are specific to writing, such as sentence-combining instruction. All teachers should build their knowledge and deliver evidence-based practices in their classrooms. Troia (2014) identified thirty-six evidence-based writing assessment and instruction practices based on experimental, quasi-experimental, and qualitative research studies.

Classroom Teachers Reflecting on Their Preparedness

Studies of teacher preparation are limited in number and primarily include work with teachers in the field (Brindle et al., 2016) and teacher educators at IHEs. Current practicing teachers have been questioned about the preparation they received in their college TPPs to teach writing. Cutler & Graham (2008) surveyed 294 elementary teachers about their classroom writing practices and the preparation they received in their TPPs. A total of 92% reported receiving a teaching certificate through a teacher education program. Results of their preparedness questions revealed 28% felt their preparation to teach writing was good or outstanding, the majority, 42%, felt it was adequate, and 28% felt they were poorly or inadequately prepared. Thus, less than one-third of the elementary teachers in this study felt they were well-prepared to teach writing based upon what they learned in their TPPs.

More recently, third and fourth grade teachers across the country reported feeling less prepared to teach writing than reading, math, science, or social studies (Graham, 2019; Brindle et al., 2016). In fact, 76% of these teachers reported receiving little or no preparation in their college program to teach writing. Only 17% of teachers took one or more courses that were completely devoted to writing instruction, while 68% took one or more courses with some

writing instruction content (Brindle et al., 2016). It is interesting to note that these teachers overwhelmingly felt they did not receive adequate preparation in writing instruction, even though more than half of them did have at least “some” writing instruction coursework. Only 20% of these teachers taught writing in their student teaching experience (Brindle et al., 2016). For the majority of those who did receive some writing instruction preparation, their preparation consisted of information primarily focused on writing process instruction. At least 78% received no preparation at all in their TPPs for teaching genre-specific text structure instruction including informative, narrative, and opinion. Notably, these three genres are identified in the CCSS.

Secondary teachers at the high school level do not report much better preparation. In Kihara et al.’s (2009) study, out of 355 teachers who taught across three disciplines (language arts, science, and social studies), only 28% reported moderate or strong agreement to receiving adequate preparation in their TPPs to teach writing in their content area. However, language arts teachers reported better preparation to teach writing than science or social studies teachers. This study further showed that science teachers’ perceptions of their preparedness to teach writing may explain why they engaged in fewer writing activities and devoted less time to teaching writing, though this was slightly less true for social studies teachers.

Teacher Educators Reflecting on Their Teaching of Writing

In addition to classroom practitioners, teacher educators at IHEs also have been surveyed regarding the courses they teach to preservice teachers. Myers et al. (2016) surveyed 63 teacher educators in TPPs across 29 states about the writing methods instruction they provide. Like K-12 teachers, the teacher educators brought their own unique and varied experiences and backgrounds to their teaching. And, like the current and future classroom teachers they educate, they also had not received any formal writing methods instruction. Most of the teacher educators

reported learning about writing instruction from self-study and research. The vast majority (72%) of the teacher educators responded that the writing methods instruction they provide is embedded in reading methods courses. Many shared there was not enough time to address writing instruction, and privileged reading instruction instead. Notably, about 76% of those surveyed felt they were at best moderately successful at teaching about writing to their teacher candidates. Writing methods instruction included focus on the writing process, writing across genres, using writing workshop, writing assessments and rubrics, and a few evidence-based practices such as using mentor texts and peer review.

Teacher Preparation Programs

A handful of studies have focused directly on TPPs. In 2005, Totten informally surveyed colleges and universities, two in each state and four in Washington, DC, about their TPPs and the writing instruction they provided to their preservice teachers. Of the 47 respondents, only four required a process writing course, and that was for students enrolled in an English education program. Only 13 required preservice teachers to take a course on literacy that addressed both reading and writing. Six responded that writing was included in a methods course covering numerous other pedagogical topics. These results are disheartening, but it is noteworthy to mention this study predates the adoption of the CCSS.

In a more recent study by Tulley (2013), 64% of all four-year institutions with TPPs in Ohio included writing methods courses in their undergraduate programs for preservice teachers seeking secondary certification. This offers some promising news, as do the results of what is covered in writing methods courses. At the top of that list is the writing process, followed by theories, commenting on student papers, and working with English learners. Other noteworthy topics included the relationship between reading and writing and grammar. Noticeably absent

was progressions of writing skills development. This study did not examine methods courses for teachers seeking elementary certification.

Theoretical Framework

In general, multiple theories underlie writing instruction. This study is framed in a combination of cognitive theory (e.g., Flower & Hayes, 1981) and sociocultural theory (e.g., Vygotsky, 1978). Cognitive theory situates writing as an iterative process reliant upon cognitive mechanisms including the cyclical nature of the steps involved in the writing process. As applied to writing, sociocultural theory centers around writing as a social activity where learning results from interacting with more knowledgeable others (Hodges, 2017). In 2018, Graham proffered the Writers-Within-Community (WWC) framework, a hybrid model inclusive of both writing theories. As noted by Myers et al. (2016), studying how future and practicing teachers learn to teach writing in a TPP requires consideration of the creation of learning communities through both coursework and student teaching internship experiences to help guide them to deliver the desired instruction in their classrooms. The WWC model provides such a theoretical framework.

WWC contextualizes writing comprehensively, examining the basic components of a writing community as well as the cognitive mechanisms at play for all members of the community. Within the WWC model, a writing community is defined as “a group of people who share a basic set of goals and assumptions and use writing to achieve their purposes” (Graham, 2018, p. 259). These communities can take place virtually anywhere there are individuals who have a purpose and use writing as a means to an end. A writing community might be an elementary science class where students devise and write down steps to conduct an experiment and report the outcomes. A writing community might consist of a family documenting its holiday traditions. A writing community might comprise students in a college course learning how to

teach writing to their future students, creating text models for their lesson plans. From these examples we can surmise several key understandings of writing communities, namely that they exist in a sociocultural context, members share a goal of creating a written product, there are many kinds of writing communities, and a person can belong to multiple communities at the same time.

For purposes of this study, while members of a writing community can include a multitude of individuals, the author is specifically referring to writing communities of students and teachers. Because writing communities exist in a social context, each member of a community is impacted by the other individual members of the writing community. Graham examines the cognitive mechanisms of each member and identifies three primary factors, including long-term memory, control mechanisms, and production processes. Control-mechanisms include attention, working memory, and executive control which allow writers to self-regulate and make decisions while writing. Production processes refer to both the physical (transcription) and mental (conceptualization, ideation, translation, and reconceptualization) writers apply throughout their process. In their role as members of a writing community, teachers must draw on knowledge of their students' characteristics and instructional needs, and on knowledge and use of effective teaching practices. PSTs can build essential knowledge of language and writing development, and evidence-based instructional and assessment practices through their coursework in a preservice teacher program. These highly relevant categories of knowledge are the focus of this study.

Purpose

The purpose of this study was to fill a long temporal gap in the research on writing methods instruction to better understand how prospective and current teachers are currently

being prepared by TPPs. By examining the degree to which writing methods instruction is provided and the topics covered in that instruction (e.g., in a course devoted solely to the subject of writing or embedded in another course), this study endeavored to provide a national overview of the current requirements and offerings of writing methods instruction. While research on this topic is scant, surveys have been the most common method of data collection, whether from students in TPPs, classroom teachers reflecting on their own preparation, teacher educators teaching in TPPs, or universities with TPP programs. What has not been done on a large scale, is a nationwide examination of what TPPs require of and/or offer to their future educators using multiple methods. In this study, the data was derived from a researcher-created survey and was triangulated through a review of available course syllabi and interviews with representatives of TPPs. While observational data would be insightful, it is not practical to collect it given the geographical dispersion of TPPs across the country. The following research questions are addressed:

1. In what courses is writing methods instruction (WMI) delivered in elementary and special education TPPs across states with high-, middle-, and low-levels of student performance on English language arts CCSS-aligned state assessments?
2. Which elements of WMI do their elementary TPPs incorporate?
3. Which elements of WMI do their special education TPPs incorporate?
4. Which elements of WMI are included in TPPs within states that include licensure tests grounded in the science of reading for elementary and special education teachers?
5. How are elements of WMI reflected in their course syllabi?

Method

This study includes a mixed-methods (Creswell, 1999) design investigating if, how, and what kind of WMI is provided in TPPs across the country. This design includes analyses of surveys sent to elementary and special education TPPs, review of literacy methods syllabi from surveyed TPPs, and interviews with select teacher educators. This triangulation of data helps to increase the credibility or internal validity of this study (Patton, 2015) and permits identification of any inconsistencies among the three data sources (Mathison, 1988) collected to address the research questions.

Participants

Three factors were considered when purposely selecting which states to include in this study. To support that this survey would reflect writing instruction in TPPs on a national level, it was deemed important to include states that represent the geographic diversity of the United States. Additionally, consideration of states with varying levels of student performance on the English language arts portion of CCSS-aligned state assessments was considered to gain a broad perspective on how TPPs across these states incorporate WMI. Finally, the status of teacher licensure testing requirements in states that have adopted a literacy approach grounded in the science of reading (SOR) were considered. The SOR refers to the research and evidence-based understanding of how individuals learn to read and develop their skills; however, it inherently incorporates writing development as well (Moats, 2020). TPPs in states with SOR-aligned teacher certification requirements should include literacy courses designed to prepare PSTs to meet those requirements and, in theory, those courses should include WMI. Better prepared teachers who provide effective writing instruction will impact their students' writing performance. For these reasons, SOR was adopted in this study to identify states with strong

literacy policies impacting PST preparation and licensing requirements as they are likely to ultimately result in improved student writing performance. Application of these three criteria to the state selection process ensured inclusion of a diverse representation of states based on geography, student literacy performance, and state expectations for teacher knowledge, all of which could potentially influence teacher preparation requirements.

State Selection Process

To carefully consider this selection process, regions described by the U.S. Census Bureau were employed. The CCSS-aligned states were divided into four regions, West, South, Midwest and Northeast, to ensure diverse geographic representation of participating states. Second, student performance data on state assessments for 4th and 8th grade English language arts performance was considered. Because current NAEP data is unavailable, states were selected based on whether their 2015-2016 state assessments, the most recent school year data submitted to the U.S. Department of Education for all states were available, and were aligned with assessments developed by the Smarter Balanced Assessment Consortium (SBAC) or the Partnership for Assessment of Readiness for College and Careers (PARCC). This ensured the proficiency percentages for these assessments could be reasonably compared across states. These data was categorized to identify states with tiered levels of performance: high (60% and above), mid (50-59%), and low (49% and below) levels of proficiency on English language arts state assessments.

Finally, the Knowledge of Early Reading Report (March 2021) from the National Council on Teacher Quality (which summarizes states' licensure exam requirements) was consulted to identify state licensure requirements that expected teacher knowledge aligned with the science of reading (SOR). According to the report, 20 states have a reading test that fully measures

knowledge in the science of reading for all elementary candidates, 11 of which also include special education candidates. Two additional states fully test the same knowledge but combine this with other subject matter. Of the remaining 29 states (plus Washington, D.C.), 17 use a test deemed inadequate because it omits some key aspects of the science of reading, while 12 states do not measure science of reading for all candidates. Using this information, two categories were created; one included the 22 states that fully measure knowledge in the science of reading, and the other included 29 states and localities that either measure this knowledge inadequately or not at all. After considering all these variables, two states were selected from each geographic region to allow for fair representation of states with and without SOR-based licensure exam requirements (one state from each category). The total sample represents all levels of proficiency on state assessments. See Table 9 for a listing of participating TPPs' characteristics by the region within which they are located.

Table 9

State Participants by Region

Region	CCSS-aligned State Literacy Performance Level	SOR
West	Low	No
	Mid	Yes
South	Low	Yes
	High	No
Midwest	Low	No
	High	Yes
Northeast	Mid	Yes
	Mid	No

Teacher Preparation Program Identification

The next step involved gathering complete lists of all elementary and special education TPPs in each of the eight selected states. The most recently available Title II reports from 2020,

which represented the 2018-2019 school year, were consulted. These reports are submitted to the U. S. Department of Education under the Higher Education Act and include information about teacher preparation providers by state. These reports allowed determination of whether IHEs included undergraduate or graduate programming or both. Only traditional undergraduate and graduate TPPs offering initial teacher licensure were considered; thus, alternative route programs were eliminated. To address the issue that teacher licensure is determined at the state level and therefore varies across states, elementary teacher certification was defined as covering kindergarten through sixth grade and special education certification was defined as covering students in kindergarten through twelfth grade. Special education program inclusion was limited to those offering certification related to high-incidence disabilities, rather than narrower specific disability categories such as visually impaired, or mentally or cognitively impaired, because preparation for those teachers may be less likely to parallel the needs of the broader student population. Therefore, an included TPP in one state may not have covered the exact same grades as another state due to differences across state licensing bodies. What this study sought to gain was an overall perspective on how a TPP prepared future educators to teach students in the earliest grades or those who may be older but benefit from similar instruction after identification of a high-incidence disability.

Data Sources

Survey Instrument

Surveys have been the primary means of data collection in other studies seeking information about writing instruction, as well as in literacy education (Baumann & Bason, 2011; Myers et al., 2016). The author-developed survey on TPP writing methods instruction was guided by existing surveys on writing instruction. Elements of evidence-based writing methods

instruction, as defined in this study, are included in the survey attached as Appendix C, and based on established research (Troia, 2014; Graham et al., 2012; Troia & Graham, 2017). To increase the validity of the survey, it was reviewed by three experts on literacy and/or survey development. Reviewer feedback was incorporated by way of revision.

The survey was designed to elicit responses about TPP requirements and/or offerings for preservice or current practicing teachers seeking elementary, secondary, or special education certification in an undergraduate or graduate TPP. In alignment with the research questions, the survey focused on the way WMI was provided, meaning whether it was via a stand-alone course or embedded in another required methods course, as well as which of the different components of WMI were provided to preservice teachers either in an undergraduate or graduate program. Survey questions were also designed to align with the WWC theoretical framework to elicit information about WMI elements including the writing community (e.g., peer work, purpose of writing, intended audience), as well as individual members of the community and their contributions and knowledge, including control mechanisms (e.g., strategy instruction, self-regulation), production processes (e.g., transcription and translation skills including writing process), and long-term memory resources (e.g., writing theories, writing assessments, reading-writing connection).

Document Review

The survey asked respondents to identify any courses that included WMI by providing course topics, titles, numbers, and copies of syllabi. One of the survey questions embedded a place to upload the requested syllabi. The survey request is the only means by which pertinent syllabi were initially requested. If a respondent did not provide a syllabus, follow-up emails and interviews served as opportunities for additional requests.

Interviews

To corroborate information provided in survey responses and syllabi review and to collect additional information about WMI, the survey also asked respondents if they would be willing to participate in a virtual interview to further discuss WMI and their TPP. The semi-structured interview questions are included in Appendix D.

Procedures and Data Collection

Survey Distribution

Following the state selection process, 182 IHEs across eight purposefully selected states received survey requests. Multiple email addresses for personnel at each IHE were obtained by hand-searching the websites for each College of Education or Education Department. The search included Deans, Directors, Chairpersons, Administrative Assistants, instructors of literacy-related courses, or similar personnel identified from each IHE website search. All email addresses were gathered and added to Qualtrics, the survey tool website, for survey disbursement management. The introductory message sent to 469 recipients asked for the email to be forwarded to the appropriate person if the recipient was unable to respond to the survey or did not have the requisite knowledge to answer the questions. This broad approach sought to have the survey reach the most appropriate and knowledgeable individual(s). Emails were scheduled in advance for delivery at 9:00 a.m. local time on a Monday morning in January when most universities and colleges were returning for a new semester. Weekly emails served as reminders to non-responders for four weeks. After the final deadline to respond passed, data were downloaded from Qualtrics for analysis. Emails to two IHEs were undeliverable, leaving 180 total possible IHE respondents.

As survey responses were received, syllabi were extracted for analysis. All respondents who indicated a willingness to participate in an interview were contacted via email. All interviews were scheduled for 60-minute video-recorded virtual conference sessions scheduled within three weeks of receiving the survey responses. Additional syllabi were provided via email as a result of interview conversations. All interviews were transcribed for analysis.

Data Analysis

If a respondent did not complete an entire survey, partial survey responses were saved in Qualtrics. All survey respondents who answered at least one-third of the questions were included in the data analysis of this descriptive study examining specific elements of WMI in TPP courses. Whether the inclusion of these elements varied between elementary TPPs and special education TPPs was examined. Comparisons of WMI included in TPPs were made among states with high-, mid-, and low-levels of student literacy performance. Comparisons were also made between states that required licensure knowledge based on SOR for elementary and special education teachers, and those that do not measure SOR knowledge completely or at all.

State Performance Data and Levels

As described earlier, data for state performance assessments from 2015-2016 were used to determine which states to include in this study because these were the most currently available data for all CCSS-aligned states at the time; however, recognizing that these data are likely outdated, more current data from each state's website were inspected. Following the same formula originally used to determine state performance levels, data for 4th and 8th grade students' English language arts performance from the 2018-2019 school year were averaged (data from 2020 and beyond were considered contaminated due to the COVID-19 pandemic). The new data resulted in several adjustments to the high-, mid-, and low-performing categorizations originally

used, yielding unbalanced dispersion. The original categories were used for selection purposes, but the analysis is more relevant using the 2019 assessment results.

A few different factors influenced the new category assignments for participating states. One state changed the format of its literacy assessment between 2016 and 2019, resulting in the proficiency scores no longer fitting within the same performance category. Another state reported scores to the U.S. Department of Education that were inconsistent with the reporting methods used by other states; this state included the percentage of students who achieved the NAEP Basic level of proficiency and, unfortunately, this was inconsistent with how other states reported their proficiency levels and was not discovered until the state's website was searched for updated 2018-2019 data. This state no longer fit within the original performance category afterwards. Following these adjustments and applying the 2019 proficiency score data, the data analysis involving state assessment categories now included five states in the low performance category, two states as mid-performers, and one state as high performing (see Table 10). Region and SOR selection criteria did not require any adjustments for data analysis purposes.

Table 10

Recategorized State Participants

Region	CCSS-aligned State	
	Literacy Performance Level	SOR
West	Low	No
	Mid	Yes
South	Low	Yes
	Low	No
Midwest	Low	No
	Low	Yes
Northeast	High	Yes
	Mid	No

Survey Responses

The research questions guided the descriptive statistical analyses of data collected from the survey responses. After collecting survey responses, categorical variables were identified and summarized through frequencies and percentages for the selection criteria categories, as well as demographic, WMI course, and WMI element data. It was important to determine whether there was an association between the number of writing methods elements included in a TPP and the performance level of the state where the TPP was located, but comparisons between the three performance levels would not be accurate with a parametric analysis given the differences in the number of responses within each level, thus a nonparametric analysis using Kruskal-Wallis H test was used to compare all three performance level groups.

Due to the variability in the number of responses regarding WMI elements, two post-hoc nonparametric analyses were undertaken—comparisons between the three performance level groups and the total number of WMI elements included in a TPP program were analyzed with a Kruskal-Wallis H test and comparisons between states that were or were not SOR-aligned relating to total WMI elements with a Mann-Whitney U test.

Course Syllabi and Interviews

Syllabi provided in response to the survey were coded using a form that included program level, certification type, type of course, frequency of WMI, and elements of the content of the writing methods courses (see Appendix E). Interview responses were coded applying the constant comparative method (Glaser & Strauss, 1999; Merriam & Tisdell, 2016) to elicit and expand upon similar information regarding TPP programs and WMI course content beyond what was included in the survey responses and/or syllabi.

Results

A total of 469 emails messages went to 182 IHEs requesting survey participation. Weekly reminders were sent over the course of four weeks resulting in two undeliverable messages and 44 survey responses. As expected, the broad approach taken to match the survey with the most knowledgeable respondent at an IHE resulted in multiple responses from a few IHEs. These responses were carefully examined for possible duplicative or conflicting information. Two responses from one IHE were included because one included information about the elementary TPP and the other addressed courses for future special educators. In all, 38 survey responses were received from 37 IHEs. The total response rate of 21.1% was calculated as the number of IHEs that responded ($n = 38$) divided by the possible number of IHE respondents ($n = 180$).

WMI Surveys

Survey Response Completion Rates

While 38 survey responses were received, unfortunately not all responses were 100% completed, resulting in some survey responses with missing data. In all, 21 responses contained complete answers to all survey items. The beginning questions were broad and then the information sought grew more detailed throughout the survey. A pattern emerged showing the most common point when a respondent would stop answering occurred when the next section of the survey sought more detailed information about WMI content such as the course title and number and requested course syllabi. This occurred after questions 12 and 15. Thus, as the following results describe the responses, the number of respondents diminishes for subsequent questions. Table 11 provides a breakdown of the number of respondents providing different levels of information.

Table 11*Survey Response Completion*

Survey Questions	Survey Section Descriptions	Individual Responses		Responses by IHE	
Q1-10	Consent and Demographics	38	100%	37	100%
	Teacher Preparation Program Courses including:				
	Q12 – breakdown of courses by certification and methods	37	97.4%	36	97.3%
Q11-16	Q13 – Identify course titles and numbers	24	63.2%	22	62.2%
	Q16 – Request syllabi for courses identified in Q15	21	55.3%	20	54.1%

Survey respondents who did not complete the full survey comprised 44.7% of responses. While most complete responses were provided by IHEs in low-performing states (85.7%), there was a better distribution of responses that were not fully complete (52.9%, 29.4%, and 17.7% from low-, mid-, and high-performing states, respectively). The low percentage of complete responses from mid- and high-performing states, therefore, may lead to biased results. Additional information from the 17 incomplete surveys, if completed, may have painted a different picture of the WMI elements in IHEs across states of all performance levels.

Respondent IHE Demographics

A breakdown by geographic region of surveys sent, responses received, syllabi provided, and interviews agreed to is provided in Table 12. The midwest region housed the greatest number of TPPs with 48.3% of surveys sent to IHEs located in those states. This region also produced the greatest number of responses proportionately with 44.7% of total responses received from the midwest. IHEs from SOR-aligned states (n = 22) comprised 57.9% of the responses. The majority of respondents across all eight states were private IHEs (n = 22; 57.9%) as opposed to public colleges or universities. Most IHEs had both graduate (completed in 1-2 years) and undergraduate (n = 20) degree programs while others only offered undergraduate programs (n = 16), and two were graduate-only programs that offered both masters and education specialist degrees. Undergraduate programs spanned four years (n = 32), less than four years (n = 1), or

between 4-5 years (n = 3). The Council for the Accreditation of Educator Preparation (CAEP) was the accrediting body for 19 respondents, while 15 were accredited through state or regional agencies, two noted they were not accredited, and two did not provide responses.

With regard to WMI experience, 25 IHEs indicated pre-service teachers were required to teach writing in their student teaching placements. Two additional respondents noted either they preferred that supervising classroom teachers teach writing in this context or believed pre-service teachers usually taught writing, but it was not required. Both elementary and special education pre-service teachers were required to take a course including WMI in their TPP at 22 IHEs, and only elementary certification seekers were required at 13 institutions. One respondent indicated this was not a requirement and two did not provide an answer. Finally, WMI is included on the elementary state teacher certification exam for new teachers (n = 24) or those renewing (n = 2) and for new special education certification pursuers (n = 6) or for renewal (n = 1) according to survey respondents.

Table 12

Participating IHE Responses

	Surveys Sent		Survey Responses		Syllabi		Interviews	
	n	%	Number Total Responses	% of Total Responses	Number Total Provided	% of Total Responses	Number Total Participants	% of Total Interviews
West	39*	21.7%	8	21.1%	9	37.5%	2	33.3%
South	33*	18.3%	7	18.4%	3	12.5%	0	0.0%
Midwest	87	48.3%	17	44.7%	10	41.7%	4	66.7%
Northeast	21	11.7%	6	15.8%	2	8.3%	0	0.0%
Total	180	100.0%	38	100.0%	24	100.0%	6	100.0%

* one undeliverable email

Research Question 1: WMI in Various Courses

In the survey, IHEs were asked to identify which courses in their TPP included WMI; offered categories included required or elective courses devoted to WMI, required literacy methods, or content area methods courses with WMI embedded. The survey also asked how

many courses of each type of methods courses students might take. Of the 37 responding IHEs, few had a dedicated WMI course, whether required or elective, and a small percentage offered one such course. The largest percentage of TPPs offered WMI embedded within one or more required literacy or content methods course. Complete results are listed in Table 13.

Table 13

TPP Courses in Which WMI is Delivered

	Number of Courses	Required Writing Methods Course	Elective Writing Methods Course	Required Literacy Methods Course	Required Content Methods Course
Elementary TPP	0	26 70.3%	30 81.1%	0 0.0%	16 43.3%
	1	8 21.6%	5 13.5%	9 24.3%	10 27.0%
	2	2 5.4%	2 5.4%	14 37.8%	1 2.7%
	3 or more	1 2.7%	0 0.0%	14 37.8%	10 27.0%
Special Education TPP	0	29 78.4%	33 89.2%	11 29.7%	24 64.9%
	1	5 13.5%	2 5.4%	12 32.4%	8 21.6%
	2	2 5.4%	2 5.4%	6 16.2%	0 0.0%
	3 or more	1 2.7%	0 0.0%	8 21.6%	5 13.5%

The first research question builds on this exploration of which TPP courses include WMI by asking how these courses vary across low-, mid-, and high-performing states. As a reminder, low-performing states are those that have 49.9% or fewer students demonstrating proficiency on the state literacy assessment. As noted in Table 14, of the 37 IHEs that responded to this question on the survey, 26 were from the five states newly designated in the low-performing category based upon the 2019 state assessment results. Proficiency scores in mid-performing states span 50.0%-59.9% and comprised seven respondents from two states, and the single state deemed to be high-performing with 60% or more of students meeting or exceeding proficiency scores included four respondents. Notably, elementary programs across all states, regardless of performance levels, require literacy methods courses with embedded WMI.

Table 14*WMI in TPP Courses by State Performance Levels*

		Low Performance (n = 26)		Mid Performance (n = 7)		High Performance (n = 4)	
Elementary TPP	Required Writing Methods Course	5	19.2%	5	71.4%	1	25.0%
	Elective Writing Methods Course	2	7.7%	3	42.9%	2	50.0%
	Required Literacy Methods Course	26	100.0%	7	100.0%	4	100.0%
	Required Content Methods Course	13	50.0%	6	85.7%	2	50.0%
Special Education TPP	Required Writing Methods Course	4	15.4%	4	57.1%	0	0.0%
	Elective Writing Methods Course	1	3.8%	2	28.6%	1	25.0%
	Required Literacy Methods Course	19	73.1%	4	57.1%	3	75.0%
	Required Content Methods Course	8	30.1%	4	57.1%	1	25.0%

Research Questions 2 through 4: WMI Elements

The second and third research questions address which elements of evidence-based WMI were included in both elementary and special education TPPs. Two respondents provided answers on behalf of special education TPPs and 19 represented elementary TPPs for a total of 21 respondents. Both responses from special education TPPs were in low-performing states while the elementary program responses spanned all three performance ranges. Overall, instruction on writing theories, handwriting, keyboarding, and computer use are all low across all performance levels while writing process and genre studies are prevalent. Table 15 highlights the breakdown of these self-reported responses.

Table 15*Elements of WMI by State Performance Levels*

Element		Low Performance				Mid Performance		High Performance	
		Elem (n=16)	SE (n=2)	Elem (n=2)	SE (n=0)	Elem (n=2)	SE (n=0)	Elem (n=1)	SE (n=0)
Theory	Sociocultural theory	9	56.3%	1	50.0%	2	100%	0	0.0%
	Cognitive process	9	56.3%	2	100%	1	50.0%	1	100%
	theory								
	Social cognitive	9	56.3%	1	50.0%	1	50.0%	1	100%
	theory								
Transcription Skills	No theory	4	25.0%	0	0.0%	0	0.0%	0	0.0%
	Handwriting (incl. letter formation)	9	56.3%	2	100%	1	50.0%	1	100%
	Spelling	14	87.5%	2	100%	1	50.0%	1	100%

Table 15 (cont'd)

	Mechanics	15	93.8%	2	100%	1	50.0%	1	100%
	Keyboarding/typing	2	12.5%	0	0.0%	1	50.0%	0	0.0%
	Computer tech use (word processing)	4	25.0%	1	50.0%	1	50.0%	0	0.0%
	No transcription	0	0.0%	0	0.0%	1	50.0%	0	0.0%
Translation Skills: Structure and Process	Parts of speech	9	56.3%	2	100%	1	50.0%	1	100%
	Sentence structure/syntax	11	68.8%	2	100%	0	0.0%	1	100%
	Morphology	12	75.0%	2	100%	1	50.0%	1	100%
	Vocabulary use in context	14	87.5%	2	100%	2	100%	1	100%
	Writing process – planning	16	100%	2	100%	2	100%	1	100%
	Writing process – writing/drafting	16	100%	2	100%	2	100%	1	100%
	Writing process – revising and editing	16	100%	2	100%	2	100%	1	100%
	Writing process – publishing	16	100%	2	100%	1	50.0%	1	100%
	Purpose of writing	15	93.8%	2	100%	2	100%	1	100%
	Audience awareness	14	87.5%	2	100%	2	100%	1	100%
Translation Skills: Genre	Genre: narrative/story	13	81.3%	2	100%	2	100%	1	100%
	Genre: informative/expository	14	87.5%	2	100%	2	100%	1	100%
	Genre: opinion/argument	13	81.3%	2	100%	2	100%	1	100%
	Genre: poetry	8	50.0%	2	100%	1	50.0%	1	100%
	Other (research, classroom pen pals)	1	6.3%	0	0.0%	0	0.0%	1	100%
Assessment	Utilizing rubrics	16	100%	2	100%	2	100%	1	100%
	Peer verbal or written feedback	16	100%	1	50.0%	2	100%	1	100%
	Adult verbal or written feedback	14	87.5%	2	100%	2	100%	1	100%
	Multiple samples, multiple evaluators	9	56.3%	1	50.0%	2	100%	1	100%
Reading- Writing Connection	Taking notes	6	37.5%	2	100%	2	100%	1	100%
	Summarization	13	81.3%	2	100%	2	100%	1	100%
	Inquiry instruction	8	50.0%	2	100%	2	100%	1	100%
	Writing in response to text	14	87.5%	2	100%	2	100%	1	100%
	Writing to learn	13	81.3%	1	50.0%	2	100%	1	100%
Strategy Instruction	Comprehensive writing instruction	15	93.8%	2	100%	1	50.0%	1	100%
	Strategy instruction	14	87.5%	2	100%	2	100%	1	100%
	Self-regulation and metacognitive reflection	11	68.8%	1	50.0%	1	50.0%	1	100%
	Setting product goals	11	68.8%	1	50.0%	2	100%	1	100%
	One or more specific strategy models	4	25.0%	1	50.0%	1	50.0%	0	0.0%
	Other (writer's workshop)	1	6.3%	0	0.0%	0	0.0%	0	0.0%

Table 15 (cont'd)

Classroom Practices	Provide extra time for writing	9	56.3%	1	50.0%	2	100%	1	100%
	Free writing	16	100%	1	50.0%	2	100%	1	100%
	Peer collaboration	15	93.8%	2	100%	2	100%	1	100%
	Teacher modeling	15	93.8%	2	100%	2	100%	1	100%
	Creativity/imagery instruction	8	50.0%	1	50.0%	2	100%	1	100%
	Utilizing text models	12	75.0%	2	100%	2	100%	1	100%
	Authentic and relevant writing tasks	15	93.8%	2	100%	2	100%	1	100%
	Motivation	12	75.0%	1	50.0%	2	100%	1	100%
Adaptations	Adaptations for the environment	13	81.3%	2	100%	1	50.0%	1	100%
	Adaptations for tasks and materials	14	87.5%	2	100%	2	100%	1	100%
	Adaptations for instruction	15	93.8%	2	100%	2	100%	1	100%
	Adaptations for evaluation to accommodate individual writer's needs	13	81.3%	2	100%	2	100%	1	100%
	Spelling errors indicative of literacy acquisition concerns	13	81.3%	2	100%	1	50.0%	1	100%
	Dysgraphia	5	31.3%	2	100%	1	50.0%	1	100%

Research question 4 poses a similar query asking which WMI elements are included in elementary and special education TPPs in states that include licensure tests founded in SOR. There were 21 respondents who provided information about WMI elements, 12 from elementary TPPs located in SOR-aligned states, seven in non-SOR-aligned states, and two responses from special education TPPs which were both in non-SOR states. There were no responses from special education TPPs states with SOR-aligned licensure requirements. Not surprisingly, theory keyboarding, and computer use were again reported in lower percentages in all categories. Spelling and mechanics, the writing process, and genre instruction were often included in both SOR and non-SOR states, while audience, purpose, reading-writing connection, and several classroom practice components were higher in SOR states. All responses for WMI elements as they related to state SOR licensure alignment are summarized in Table 16.

Table 16*Elements of WMI in states with SOR-aligned licensure*

		SOR					
		Yes		No			
		Elem (n=12)	SE (n=0)	Elem (n=7)	SE (n=2)		
Theory	Sociocultural theory	7	58.3%	4	57.1%	1	50.0%
	Cognitive process theory	8	66.7%	3	42.9%	2	100%
	Social cognitive theory	7	58.3%	4	57.1%	1	50.0%
Transcription skills	Handwriting (incl. letter formation)	8	66.7%	3	42.9%	2	100%
	Spelling	10	83.3%	6	85.7%	2	100%
	Mechanics	10	83.3%	7	100%	2	100%
	Keyboarding/typing	2	16.7%	1	14.3%	0	0.0%
	Computer tech use (word processing)	3	25.0%	2	28.6%	1	50.0%
Translation skills – Structure and Process	Parts of speech and grammar	6	50.0%	5	71.4%	2	100%
	Sentence structure/syntax	6	50.0%	6	85.7%	2	100%
	Morphology	10	83.3%	4	57.1%	2	100%
	Vocabulary use in context	11	91.7%	5	71.4%	2	100%
	Writing process – planning	12	100%	7	100%	2	100%
	Writing process – writing/drafting	12	100%	7	100%	2	100%
	Writing process – revising and editing	12	100%	7	100%	2	100%
	Writing process – publishing	11	91.7%	7	100%	2	100%
Translation skills - genre	Purpose of writing	12	100%	6	85.7%	2	100%
	Audience awareness	12	100%	5	71.4%	2	100%
	Genre: narrative/story	10	83.3%	6	85.7%	2	100%
	Genre: informative/expository	11	91.7%	6	85.7%	2	100%
	Genre: opinion/argument	10	83.3%	6	85.7%	2	100%
	Genre: poetry	6	50.0%	4	57.1%	2	100%
	Genre – other	2	16.7%	0	0.0%	0	0.0%
Assessment	Utilizing rubrics	12	100%	7	100%	2	100%
	Peer verbal or written feedback	12	100%	7	100%	1	50.0%
	Adult verbal or written feedback	11	91.7%	6	85.7%	2	100%
	Multiple samples, multiple evaluators	9	75.0%	3	42.9%	1	50.0%
Reading- writing connection	Taking notes	7	58.3%	2	28.6%	2	100%
	Summarization	12	100%	4	57.1%	2	100%
	Inquiry instruction	7	58.3%	4	57.1%	2	100%
	Writing in response to text	11	91.7%	6	85.7%	2	100%
	Writing to learn	11	91.7%	5	71.4%	1	50.0%
Strategy instruction	Comprehensive writing instruction	10	83.3%	7	100%	2	100%
	Strategy instruction	12	100%	5	71.4%	2	100%
	Self-regulation/metacognitive reflection	9	75.0%	4	57.1%	1	50.0%
	Setting product goals	9	75.0%	5	71.4%	1	50.0%
	One or more specific strategy models	4	33.3%	1	14.3%	1	50.0%
	Other	1	8.3%	0	0.0%	0	0.0%
Classroom practices	Provide extra time for writing	9	75.0%	3	42.9%	1	50.0%
	Free writing	12	100%	7	100%	1	50.0%
	Peer collaboration	12	100%	6	85.7%	2	100%
	Teacher modeling	12	100%	6	85.7%	2	100%
	Creativity/imagery instruction	9	75.0%	2	28.6%	1	50.0%
	Utilizing text models	9	75.0%	6	85.7%	2	100%
	Authentic and relevant writing tasks	12	100%	6	85.7%	2	100%
	Motivation	12	100%	3	42.9%	1	50.0%

Table 16 (cont'd)

Adaptations	Adaptations to the environment	9	75.0%	6	85.7%	2	100%
	Adaptations for tasks and materials	11	91.7%	6	85.7%	2	100%
	Adaptations for instruction	12	100%	6	85.7%	2	100%
	Adaptations for evaluation for indiv. writer's needs	10	83.3%	6	85.7%	2	100%
	Spelling errors indicative of literacy acquisition concerns	10	83.3%	5	71.4%	2	100%
	Dysgraphia	6	50.0%	1	14.3%	2	100%

Across the three categories of performance levels, the homogeneity assumption underlying an ANOVA was not met as the frequency distributions were not equal. The nonparametric Kruskal-Wallis H test was run and while the mean rankings showed that states in the high-performance range had a greater number of WMI elements followed by mid-range and then low student literacy performance, the results indicated a non-significant difference among the groups, $\chi^2(2) = 1.873$, $p = 0.392$. A Mann-Whitney U test was conducted to determine whether there was a difference in the number of WMI elements between SOR-aligned and non-aligned states. Mean rank comparisons showed states that are SOR-aligned had a greater number of WMI included in TPPs, but the results indicated a non-significant difference between groups [$U = 41.00$, $p = 0.354$].

Research Question 5: Course Syllabi

Thirteen of the survey respondents from six of the eight states shared one or more syllabi per the survey request, resulting in 24 syllabi provided. The syllabi were coded for pertinent information including in what program the course was based, which type of course the WMI was delivered through, what portion of the course was devoted to WMI, and in response to research question 4, how the WMI elements were reflected in the syllabus. Course syllabi were provided for 18 elementary TPP courses, four special education TPP courses, and two courses identified as requirements for both elementary and special education. Six of the syllabi were for graduate

courses and three of those were for graduate special education programs. The vast majority (n = 18) of syllabi were for courses titled literacy/language arts methods courses that embedded WMI. The remaining syllabi were for children's literature courses (n = 2), content area methods courses (n = 2), and one each of a WMI course and a general special education methods course. Eleven of the syllabi did not contain sufficient information to determine how much of the course was devoted to WMI. Three courses appeared to be primarily devoted to writing instruction despite two of them being identified generally as literacy methods. All three were elementary courses, two graduate level, and one undergraduate. Five devoted approximately half of the course to writing instruction, and the remaining five courses cover WMI for 1-3 weeks of the semester. Syllabi from elementary TPP courses reported more included elements overall, although percentages of elements included were very low. Interestingly, theory was only included in a graduate course. Special education syllabi did not report many elements of WMI at all. WMI elements reflected in the various course syllabi are summarized in Table 17.

Table 17

Number of WMI Elements Reflected in Syllabi

		Elem TPP (n = 18)				Spec Ed TPP (n = 4)				Both Elem and SE (n = 2)			
		UG		Grad		UG		Grad		UG		Grad	
Theory	Sociocultural theory									1	50.0%		
	Cognitive process theory									1	50.0%		
	Social cognitive theory												
	No theory												
Transcription Skills	Handwriting (incl. letter formation)	4	22.2%	1	5.6%		1	25.0%					
	Spelling	5	27.8%	1	5.6%							1	50.0%
	Mechanics	4	22.2%	2	11.1%								
	Keyboarding/typing												
	Computer tech use (word processing)						1	25.0%				1	50.0%
Translation Skills: Structure and Process	Parts of speech and grammar	4	22.2%									1	50.0%
	Sentence structure/syntax	1	5.6%										
	Morphology	1	5.6%										

Table 17 (cont'd)

	Vocabulary use in context	4	22.2%						
	Writing process – planning	2	11.1%	1	5.6%				
	Writing process – writing/drafting	2	11.1%						
	Writing process – revising and editing	2	11.1%						
	Writing process – publishing	2	11.1%						
	Writing process mentioned in general	3	16.7%	1	5.6%				
Translation Skills: Genre	Purpose of writing	3	16.7%	1	5.6%				
	Audience awareness	2	11.1%						
	Genre: narrative/story	3	16.7%	1	5.6%				
	Genre: informative/expository	3	16.7%	1	5.6%				
	Genre: opinion/argument	2	11.1%	1	5.6%				
	Genre: poetry	3	16.7%	1	5.6%				
	Genre - other (mentioned in general; autobiography, biography, memoirs, personal narratives)	3	16.7%	1	5.6%				
Assessment	Utilizing rubrics	3	16.7%	1	5.6%			1	50.0%
	Peer verbal or written feedback	1	5.6%						
	Adult verbal or written feedback	6	33.3%	1	5.6%	1	25.0%	1	50.0%
	Multiple samples, multiple evaluators								
	Other – assessments in general	1	5.6%			1	25.0%		
Reading-Writing Connection	Taking notes								
	Summarization								
	Inquiry instruction								
	Writing in response to text							1	50.0%
	Writing to learn	2	11.1%	1	5.6%			1	50.0%
Strategy Instruction	Comprehensive writing instruction								
	Strategy instruction	3	16.7%			1	25.0%	1	50.0%
	Self-regulation and metacognitive reflection								
	Setting product goals								
	One or more specific strategy models (6 + 1 Traits)	1	5.6%	1	5.6%			1	50.0%
	Other (Serravallo Writing Strategies book, Step Up to Writing; writing workshop)							1	50.0%

Table 17 (cont'd)

Classroom Practices	Provide extra time for writing					
	Free writing					
	Peer collaboration					
	Teacher modeling	1	5.6%	1	5.6%	
	Creativity/imagery instruction					
	Utilizing text models	4	22.2%	1	5.6%	
	Authentic and relevant writing tasks	1	5.6%			
	Motivation					
	EBPs in general – CEEDAR doc					1 50.0%
Adaptations	Adaptations to the environment					
	Adaptations for tasks and materials					
	Adaptations for instruction					
	Adaptations for evaluation to accommodate individual writer's needs	11	61.1%			
	Spelling errors indicative of literacy acquisition concerns					
	Dysgraphia					
	Other – differentiation	1	5.6%	2	11.1%	1 50.0%

Interviews

Six survey respondents voluntarily participated in one-on-one virtual interviews with the author to further discuss WMI, their TPPs, and their courses. Sixty-minute interviews were scheduled within 3 weeks of receiving the survey responses. Two interviewees were from states in the western region, and four were from the midwestern region. No respondents from the south or northeast regions volunteered. Four individuals held administrative roles at their colleges or universities, one was an assistant professor, and one was a visiting lecturer. Enrollment at their respective IHEs ranged from 18 graduates in a year to roughly 300. All six TPPs served undergraduates and half offered graduate degrees. Most often the general and special education programs were integrated and WMI courses that were referenced by interviewees were part of

the programs for pre-service teachers pursuing both elementary and special education certification. All interviewees began their careers as classroom teachers with their time in higher education spanning 3-35 years. All six either held or were pursuing ($n = 1$) doctorate degrees.

Each interview was transcribed and then qualitatively analyzed applying the constant comparative method. Interviewee responses were open coded, then axial coded to narrow the responses into categories. Finally, patterns or emerging themes were identified.

Theme 1: Missing writing instruction

Semi-structured interview questions guided the initial coding. The first theme that emerged was the under-privileging of WMI and the need to better prepare future educators. An interviewee with a long history of research and IHE instruction referred to writing as the “red-headed stepsister of the literacy world.” Spurred by an early interest in writing instruction and research, this participant referenced a study that was completed 30 years ago and shared the frustration and wish that schools should be paying more attention to writing by now. This sentiment was shared by another teacher educator who said:

Our students aren’t getting a lot of experience with writing instruction. A lot of writing that they’re seeing is really aimed at writing for whatever standardized measure is necessary, and we are missing out on opportunities.

Two other participants noted the writing practices demonstrated to be most effective likely do not reflect how most pre-service teachers were taught to write, so educators need to give them different experiences. They have to be taught that writing instruction is more than just mechanics and conventions, and that is exactly what these participants are striving to do.

Theme 2: Privileging WMI

“Writing is really, really important to me.” This sentiment was threaded through all the interviewees’ messages. One participant approached building a literacy methods course to include WMI by considering how to lay the groundwork for becoming a good writing teacher and breaking down the perception that writing is hard. Another stated, “I started looking for ways to privilege the writing components and to make sure that we’re addressing spelling and grammar as tools for writing, not how we teach writing.” A third shared the following goal: “I want our students to be teachers who not only know what to do in the classroom, but know why they’re doing what they’re doing.” These teacher educators are approaching this challenge in some similar ways noted below.

Writing Workshop. Four participants not only teach pre-service teachers about the writing workshop framework for delivering WMI, they structure their courses to include it. They explain that this allows the pre-service teachers to understand how to integrate the writing workshop model in their classrooms and experience what their future students will experience as writers. Pre-service teachers learn about this model by planning mini-lessons, strategically aligning conferencing activities, and writing in writer’s notebooks. Participants report pre-service teachers find this approach highly engaging.

Including Elements of WMI. Several of the elements included in the survey and analysis of syllabi were mentioned by these instructors. Interviewees mentioned teaching pre-service teachers how to incorporate mentor texts in writing instruction, citing it “can change how students feel about what writing is” by illustrating how an author uses the focus skill in their own writing. Exploring how writing can support elementary students across content areas was mentioned by three interviewees. Modeling writing for children arose several times, as did

providing opportunities for students to apply grammatical skills by teaching them in the context of a text writing task. Including instruction on varied genres (e.g., persuasive, informative, and narrative) and purposes of writing were mentioned by multiple participants. Three individuals noted they explicitly teach the writing process and one focused specifically on teaching pre-service teachers how to pace instruction so they recognize that teaching writing is much more involved and will take longer than expected. One professor has students work in peer groups and models how to manage a classroom during writing instruction when students engage in collaborative writing activities.

Devoting Time. According to the interviewees, the courses discussed recognized the importance of devoting time to writing. Only one of the courses discussed in the interviews was solely a WMI course; the others were literacy courses that allocated anywhere from 30% to 67% of the course to writing. Several participants would likely agree with one professor's statement: "I try to give much more attention to writing than what the standards suggest."

Resources. All interviewees noted a variety of resources they share with their students via their courses. Among the resources mentioned were research articles, texts on writing strategies, drawing on their own prior training in using rubrics or through participation in the National Writing Project (NWP). One participant reported having pre-service teachers engage with the community via a pen pal exchange program with local elementary students. The professor also held a summer writing conference for teenagers, creating opportunities for pre-service teachers to gain experience by being involved in this event.

Theme 3: Shared Passion for WMI

One theme among all participants was very clear: They all share a passion for preparing future educators to be the best writing teachers they can be. This was implied through their

willingness to participate in these interviews and their desire to collaborate. It was also obvious in their explicit enthusiasm to learn about the results of this study.

“This is an exciting project and it’s about time someone did it.”

“I’m really excited to see your work when it’s done.”

“Teacher educators are hungry for conversations like we’re having. And that’s where growth comes in programs. Growth comes through readings and conference attendance, but it’s really these one-on-one conversations...that cause change in programs.”

Through sharing what teacher educators are doing as WMI providers, teacher practices can be improved through preparing future educators empowered with knowledge and pedagogical expertise in WMI, and consequently future generations of young learners will benefit.

Discussion

This study sought to better understand how TPPs in states with varying levels of literacy performance and different literacy policies were preparing pre-service teachers to be teachers of writing for elementary and special education students. Viewed primarily through a lens of nine categories of WMI elements, survey responses and syllabi were reviewed, and interviews were conducted and coded to provide insight into the research questions.

Courses Including WMI

Based on the survey responses, all of the elementary and special education TPPs include WMI as standalone (47.3%) or embedded (100%) content and this seems to be an improvement over prior survey studies that found teachers reporting 31.7% in a standalone course and 47.5% in an embedded course (Troia & Graham, 2016). Survey results and syllabi provided showed a greater percentage of both elementary and special education TPP literacy methods courses that embedded WMI. However, exactly what elements of WMI and how much time spent on this

instruction varied greatly in the syllabi based on the level of detail provided. According to syllabi, time spent on writing in literacy courses that embedded WMI spanned anywhere from one week to half of the semester. The survey results found about one-third of the courses listed were solely devoted to WMI, while syllabi provided showed a smaller percentage of WMI-only courses. Interviewees also reported only teaching literacy methods courses with embedded WMI. While it does not seem that courses focused solely on WMI are on the rise, perhaps there is an increase of WMI being provided to pre-service teachers in both elementary and special education TPPs under the more general umbrella of literacy methods. This held true across all states regardless of low-, middle-, or high-performance. On survey responses states that were SOR-aligned reported a greater percentage of courses including WMI, both WMI-only and general literacy methods courses, than non-aligned states. This was true for both elementary and special education survey respondents. Syllabi provided showed almost equal percentages, just over 70%, of courses that included WMI, with one WMI-only course in an SOR-aligned state, and two courses in non-SOR states. More than twice as many syllabi were provided by states that were not SOR-aligned.

Elements of WMI

Fifty components couched within nine categories of WMI were specifically included in the survey and were also coded in syllabi provided. The self-reported survey results reveal patterns of which elements were more frequently included in TPP courses; however, the syllabi did not always support what the survey responses indicated. Theory was reportedly taught in over half of the courses according to the surveys, but the syllabi indicated theory was rarely included. Spelling and mechanics were the most frequently taught transcription skills pursuant to both surveys and syllabi. The writing process, genre instruction, assessment practices including

use of rubrics and teacher conferencing, using mentor texts, and adaptations for students based on their individual needs were also noted often in surveys and syllabi. Instruction based on the reading-writing connection, strategy instruction in general, and the other listed classroom practices and adaptations showed no consistent focus in the syllabi. These findings were inconsistent with the reportedly high occurrence of addressing writing in response to text and to learn, strategy instruction, and adaptations in survey responses. Classroom practices including free writing, peer collaboration, teacher modeling, use of mentor texts, motivation based on positive reinforcement, and relevant writing tasks were not specifically noted in syllabi, but most were referenced in interviews. It may be that these practices are utilized and modeled for pre-service teachers by their teacher educators but not expressly noted in the syllabi.

While the reasons for these discrepancies are not known, speculation may provide some future guidance. It is possible that the self-report nature of the survey responses may have resulted in response bias skewing the accuracy regarding which WMI elements are actually included in TPP courses. Another possible explanation involves who provided the survey response. Despite efforts to ensure the survey reached the most knowledgeable people at the respondent IHEs, it is possible the individuals who responded may not have had the requisite knowledge to ensure accuracy of responses. In one case, an interview participant who held an administrative role shared that her responses regarding WMI were based on when she taught the course more than five years prior. The person who currently taught the course may have made changes that were not reflected in the survey responses. In addition, syllabi typically present information in a more general sense and by topic on a week-by-week basis or by general topics. Therefore, the level of detail of coding the syllabi may not have been detectable in a typical

syllabus. The inconsistencies between the survey responses and the syllabi are interesting and worthy of further exploration.

Writing Strategy Instruction

The results for one particular element, strategy instruction, seemed curious. Both the TPP and PD results showed unexpectedly large numbers of responses indicating the presence of instruction defined by *both* the first category listed in this section of the survey, comprehensive writing instruction (defined as process instruction plus strategy instruction, skill instruction and/or text structure instruction), and the second category, strategy instruction (defined as explicit and systematic instruction of strategies including modeling and guided practice with feedback with the goal of having students use the strategies independently). These descriptions were included on the survey but may not have been defined sufficiently to be distinguishable to survey respondents. This may have skewed the accuracy of responses and resulted in the appearance that strategy instruction is included in TPPs and PD more often than it actually is. Including more precise definitions of strategy instruction, explicit instruction, and even Self-Regulated Strategy Development may have reduced the likelihood of confusion.

Writing Workshop

Although the writing workshop model was not explicitly identified on the survey or in the syllabi codebook, it showed up in many syllabi and was mentioned repeatedly in interviews. Writing workshop is a popular approach to deliver writing instruction in elementary classrooms. Endorsed by the National Council of Teachers of English and the International Literacy Association, writing workshop often includes components of WMI explored in this study, including a focus on composition strategies, craft elements, writing process, assessment practices including adult-child conferencing, and authentic writing activities (Troia et al., 2011). It is

possible in a TPP course that incorporates the writing workshop model these elements may be included, and therefore appropriately identified in the survey responses, but not specifically identified in a syllabus. While this remains uncertain from the findings of this study, based on the interviews with the six teacher educators, the writing workshop model is frequently presented to future educators as a model for writing instruction.

Connection to Theoretical Framework

Considering the WWC theoretical framework, which contextualizes all of the components that are involved in writing and therefore should be included in comprehensive writing instruction, it is clear there are missing pieces. WMI elements considered to be control mechanisms such as strategy instruction were inconsistently reported when comparing survey results to syllabi review. Production process elements including spelling, mechanics, and the writing process were consistently noted, but other transcription and translation skills were not. Other than assessments, elements that build on long-term memory resources were inconsistent or absent from WMI. Finally, with regard to the concept of writing community, both purpose of writing and intended audience were often included, as well as the incidental result of structuring WMI in a Writing Workshop model. In short, while some of the components suggested by the WWC theoretical framework appear to be incorporated in WMI, others are inconsistently reported or notably absent.

Limitations

Several limitations are present. First, the survey response rate of 21.1% is not particularly high. Further, of the 38 responses received, only 21 included answers to all items; thus, results may not be representative of TPPs beyond these 21 respondents. The small percentage of total responses did not allow for parametric analyses to explore differences between TPPs in states

with the three assessment performance levels or SOR-aligned teacher credentialing. In addition, syllabi included in this review were limited to those provided by survey respondents and may not be broadly representative of TPPs. Second, the survey was not piloted before deployment. Doing so would have provided greater insight about the clarity of the items and the precision and comprehensibility of the definitions provided. Based on some of the survey responses asking about strategy instruction in particular, providing more explanation may have improved the validity of the survey results.

Another limitation involves the categorization of states based on assessment performance levels. The original distribution intended to yield results from multiple states at each of the low-, mid-, and high-performing levels, but shifted when literacy performance results were updated using 2018-2019 data. Even though the results from 2019 reflect more current information, the effect of the pandemic on assessments creates challenges to obtain the most current performance information.

Response bias is inherently possible given that individuals who have a unique interest in writing instruction are likely to respond to the survey and provide syllabi, and even more likely to volunteer to participate in an interview. Findings may be skewed by the heightened interest that may not necessarily be present in all TPP elementary and special education courses. Teacher educators who are invested in writing and preparing teachers of writing will structure their courses differently than those who do not have this interest or expertise. Their programs and courses may have a greater emphasis on writing than most, as suggested by one interviewee's statement regarding including more writing than standards require. Even university-level instructors may not have received deep or broad training on writing instruction, but rather may derive their expertise from self-study and research (Scales et al., 2019).

A final limitation is that this study is a snapshot in time. Instructors and syllabi frequently change from year to year in a given TPP so the findings from this study may not be temporally stable. Further, as more states adopt SOR-aligned legislation, standards and licensure requirements change (see Schwartz, 2023). The Knowledge of Early Reading Report from March 2021 indicated 20 states required demonstrated SOR knowledge on teacher licensure exams.

Implications for Teacher Education and Future Research

While there is certainly room for improvement in how future educators are prepared to teach writing, the findings from this study provide hope that more TPPs are including WMI in their courses. A follow-up to this study with broader distribution of the survey to more states and TPPs within them would allow for increased assurance in the generalizability of the results and would provide more insight into changes and improvements. This study might serve as a baseline for future research in WMI preparation. Future research might expand on the progression of SOR initiatives across states, exploring whether there is a relationship between states adopting these policy approaches, the depth and breadth of WMI in their state TPPs, and whether there are any trends in performance on literacy/writing assessments in these states.

There is interest in the field to improve teacher preparation regarding writing instruction (see Martin & Dismuke, 2015; Myers & Paulick, 2020; Myers et al., 2016; Scales et al., 2019). Building on a comment made by one of the interviewees, stating that real change is made through collaborative efforts and conversations on this topic, a next step might involve moving forward to create communities of practice of writing methods' teacher educators as recommended by Myers and Paulick (2020; see also Martin & Dismuke, 2015). Communities of practice afford many benefits to participants beginning with a shared interest, expertise, and passion (Wegner, 1998). Within a community of practice, participants have the opportunity to

share ideas, ask and answer questions, learn from each other, problematize their practices, unite for a purpose, and continually improve and grow (Myers & Paulick, 2020). There is opportunity to bring lasting impact and change to the field that would not reside with one person and one university, but rather could be shared and grown. Teacher educators often feel as if they work in isolation (Swennen & Bates, 2010). Building a community of practice among teacher educators with a vested interest in improving WMI for future and current teachers may be a step in the right direction. If nothing else positive came from the pandemic, we are now a society that is proficient in running and attending virtual meetings. This certainly facilitates a broad and inclusive basis for building a WMI community of teacher educators.

Conclusion

These findings build on prior studies of teacher preparation for writing instruction (see Brindle et al., 2016; Cutler & Graham, 2008; Myers et al., 2016; Totten, 2005) by extending the exploration to include more details about what is taught to pre-service teachers. Elements of WMI rooted in evidence-based practices were identified as components to be included in teacher preparation. This was further considered in the context of categorizing states based on student performance on state assessments and policy positions about literacy instruction. Trends with respect to which elements were commonly included were identified. Consequently, elements that are infrequently taught were also highlighted. To improve the status of writing and the performance of the nation's children in writing, we need to build more knowledge of how to teach writing. Future teachers cannot teach what they do not know and TPPs provide the critical inflection point for this preparation. This study can serve as a starting point to gather more information and ultimately help build effective practices for teacher educators.

CHAPTER 4:

Improving Staff Writing Pedagogy Instruction and Student Proficiency

It will likely come as no surprise to read that we have a writing problem in America. Only a surprisingly low percentage of our students are becoming proficient writers, and this is not a new problem. Twenty years ago, the National Commission on Writing issued a call to action for a writing revolution in a report entitled *The Neglected “R”*. Accordingly, many districts have prioritized initiatives to improve student writing proficiency. As an example, after recognizing that student writing scores were consistently the lowest of all academics, a small Rhode Island district’s now retired superintendent led the district’s initiative to improve student writing. Similarly, a large suburban school district in Massachusetts with over 50 schools found their students’ writing scores were stuck at a 2 on a scale of 1 to 4, and they could not move those scores (<https://www.youtube.com/watch?v=0XmIbRYhhT8>). Accordingly, they also decided to focus on improving students’ writing abilities. Both districts began their successful quest to improve student writing by providing professional learning to their staff on how to teach writing. Writing earns its place as a top priority given that student writing proficiency across the country hovers just over 25% according to the recent NAEP scores from 2011 for eighth and twelfth graders, and 2002 for fourth graders. These levels of proficiency are potentially harmful to students. Whether their post-secondary pursuits include college or moving directly into the workforce, writing matters. Findings of the National Commission on Writing in 2004 show that writing is a professional skill required in service industries, finance, insurance, and real estate, as well as construction and manufacturing. This report claims that costs to American businesses to remediate poor writing may be as high as \$3.1 billion annually.

There are multiple factors leading to low writing proficiency among children such as limited time devoted to writing instruction, an historical focus on reading and math to the exclusion of writing, and poor teacher preparation to teach writing and writing-related skills. With respect to this last point, teachers rarely receive relevant pedagogical instruction during their pre-service preparation, and this leads to a lack of confidence in their ability to teach writing, perhaps coupled with perceptions of themselves as weak writers. Of course, this is not the case for all teachers, but the challenges teachers face when it comes to providing writing instruction are well-documented in the research literature.

Don't Blame Teachers

One of the root causes of the problem of low student writing proficiency is simply teachers' lack of knowledge about how to teach writing. If teaching writing was easy, more teachers would do it well, and student proficiency would be higher. Sadly, this is not the case. Teachers work incredibly hard, often seeking new professional learning opportunities and activities on their own to deepen both their content knowledge and their understanding of the best pedagogical practices to teach that content. We can assume that teachers want to be the best instructors they can be in all areas including writing; they simply do not know what they do not know. My experience is no exception. As a former elementary and special education teacher, I stepped foot into the classroom feeling ill-prepared to teach writing to the students I worked with in kindergarten through eighth grade. Like many educators, I did not just accept that I did not have this pedagogical knowledge; rather, I began asking my colleagues questions and exploring opportunities to broaden my knowledge.

I was like many teachers in today's classrooms who received minimal or no writing methods instruction in their TPPs. Few programs offer even one class entirely devoted to writing

methods instruction. More often, writing pedagogy is embedded in reading or literacy methods courses. As reported by Brindle and colleagues in 2016, only 17% of third and fourth grade teachers surveyed across the country reported taking one or more courses that were completely devoted to writing instruction, while 68% took one or more courses with some writing instruction content embedded in other courses. It is interesting to note that these teachers overwhelmingly felt they did not receive adequate preparation in writing instruction, even though more than half of them did have at least “some” writing instruction coursework. In 2018, Martin and Dismuke observed that teachers who had a writing methods course in their undergraduate or graduate programs displayed different classroom writing practices than a group of well-respected teachers who did not have any writing pedagogy instruction. Teachers in the latter group were simply trying to teach what they did not know because they had not learned how to teach writing.

Further, many of today’s practicing teachers, such as myself, likely did not receive strong writing instruction when they were K-12 students. With inadequate experiences learning to write, and little instruction in writing pedagogy instruction in their teacher preparation, teachers do not feel adequately prepared to teach writing. This claim is confirmed in Cutler and Graham’s 2008 study of 294 elementary teachers surveyed about their classroom writing practices and the preparation they received in their TPPs. Less than one-third of the elementary teachers in this study felt they were well-prepared to teach writing based upon what they learned in their TPPs.

From here the problem becomes a Catch-22: Teachers have poor preparation and low perceived competence as teachers of writing, so they are not able to teach writing to their students effectively. The students in these teachers’ classrooms become the next generation of teachers, bringing with them inadequate writing background and preparation, and the cycle

continues. However, there are steps a school and district can take to help break this cycle. When teachers have the requisite writing pedagogical knowledge, their students demonstrate greater gains (Binks-Cantrell et al., 2012; Lyon & Weiser, 2009; Podhajski et al., 2009; Spear-Swerling & Zibulsky, 2014). Increased teacher writing knowledge means increased classroom writing instruction (Spear-Swerling & Zibulsky, 2014).

Today's Classroom Writing Instruction

Many teachers learn how to teach writing on-the-job by adopting whatever program or curriculum the district already uses. For example, one of the most popular writing curricula schools have adopted is Lucy Calkins' Units of Study. Although widely used across the country, this curriculum has been scrutinized and criticized in recent years. While Units of Study has been honored for bringing what was a unique approach to writing instruction, it has been faulted for not being explicit and comprehensive enough to allow students, especially those who struggle with writing, to make significant gains in writing across genres and content areas. Preparing proficient writers is accomplished by incorporating evidence-based writing instruction and assessment practices throughout a student's academic career, by explicitly teaching stages of the writing process, and by allowing substantial time for students to practice their writing skills (Graham et al., 2012; Graham et al., 2011; Graham & Hebert, 2010; Graham & Perin, 2007; Sedita, 2013).

Because writing is a cognitively complex process and requires the integration of many knowledge resources and skills as well as a strong motivational stance, students should receive explicit writing instruction in many areas including transcription skills (e.g., handwriting, spelling, conventions, and keyboarding), translation skills (e.g., grammar, sentence structure, audience awareness, text structure), the writing process, and reading-writing connections.

Therefore, teachers require good pedagogical instruction in these areas as well as evidence-based instruction and assessment practices and ways to adapt for students with writing challenges or disabilities. When teachers depend solely on learning how to teach writing based on the district's adopted curriculum, students miss out on many important aspects of what it takes to be a skilled and perhaps even accomplished writer.

Without adequate preparation in preservice teacher education to build both knowledge and confidence, and without a comprehensive writing curriculum or program to follow, many teachers seek out PD on their own. While teachers are commended for pursuing new learning opportunities on their own, it opens the possibility of inconsistent knowledge and consequently variable delivery of instruction across a district. Unfortunately, it also promotes inequities since the teachers with the least resources are more likely to have the students with the greatest needs, but less likely to have the finances to obtain more resources. The best option to bring teachers in your district what they need and to create consistency across buildings is to provide PD on writing instruction. Winn et al. (2021) found teachers feel valued and have improved self-efficacy when their principal provides access and encouragement to attend PD.

Professional Development

This writing crisis is not a new problem, but it is a persistent one. In 2003, the National Commission on Writing in America's Schools and Colleges published a report about the state of writing instruction entitled *The Neglected "R"*. The report contained five recommendations referred to as a "writing agenda for the nation." One of the recommendations, training teachers in how to teach writing, can be addressed at the district level and PD is the ideal starting point to move toward improving student writing proficiency.

A few years after that report was issued, a 2006 report by Applebee and Langer on the state of writing instruction noted teachers' positive response to professional learning experiences that help them support their students' reading and writing progress. In 2007, Fearn and Farnan concluded that PD for teachers in writing leads to improved student writing. This, of course, is the ultimate goal. The following year, the National Council for Teachers of English called for schools to invest in PD for writing instructors in its Writing Now report. Unfortunately, as all these suggestions predate the most recently available NAEP results from 2011, it appears there has not been sufficient teacher training yet to result in improved student writing outcomes. Recently noted by Troia and Graham in 2016, teachers themselves continue reporting a lack of sufficient PD in writing instruction. The need for intensive, comprehensive, and meaningful professional learning opportunities remains strong.

Where to Begin

PD for writing methods instruction should be grounded in evidence-based practices (EBPs). This ensures that the content teachers receive was demonstrated to be efficacious and effective for their students. Two means to determine how strong the evidence is for an instructional practice or program come from the U.S. Department of Education. The What Works Clearinghouse was established in 2002 to review evidence of the effectiveness of programs, policies, and practices. By applying rigorous and consistent standards, What Works Clearinghouse ratings include three tiers. The highest rating indicates the evidence meets the standards without reservation. The two additional levels include a mid-level rating of meeting the standards with reservations and a low rating indicates the research evidence does not meet the standards. The What Works Clearinghouse standards are quite strict, yielding many different reasons why a practice or program may not achieve the highest rating. More recently, in 2015,

the Every Student Succeeds Act (ESSA) established four tiers of evidence to determine the effectiveness of programs, practices, strategies, and interventions. The tiers are ranked as strong evidence, moderate evidence, promising evidence, or demonstrating a rationale. Both the What Works Clearinghouse website (<https://ies.ed.gov/ncee/wwc>) and one named “Evidence for ESSA” (www.evidenceforessa.org) contain names of specific programs, practices, and interventions and their ratings.

Giving consideration to the level of evidence-based support is critical when selecting what kind of writing instruction PD to pursue for a school or district. As we know, teachers are experiencing unprecedented levels of stress due to the pandemic, so tackling something as important as writing instruction may seem daunting. When asking teachers to engage in professional learning, you will want to know that the evidence behind its effectiveness is likely to produce the desired results. Several suggestions follow.

Professional Development Ideas

Writing Strategy Framework

When it comes to writing, one approach stands out with extensive evidence-based support. Self-Regulated Strategy Development, or SRSD, was created by renowned writing researchers Karen Harris and Steve Graham. In the 2007 *Writing Next* report, the Carnegie Corporation recognized SRSD as having the largest effect of any researched writing instruction program or practice. With its effectiveness proven repeatedly for over 30 years, the SRSD approach has produced consistent improvement in student writing across ages and grades from early elementary through high school, across classroom settings, student populations, and countries, and across genres (informational, opinion, and narrative) and tasks.

There are several features that set SRSD apart from other writing approaches, most notably the self-regulation component. While teaching students self-regulation strategies is embedded in the SRSD approach, it is a skill set students can apply in other areas of learning and their lives. When students learn to recognize obstacles to achieving goals established by their teachers, themselves, or in collaboration with others and identify ways to overcome them, they build confidence in their abilities and increase their motivation. With SRSD, students learn to establish concrete and ambitious yet attainable goals for their writing, self-monitor what is and is not working for them in their pursuit of those goals, adjust their goals as needed to meet task demands, audience needs, and personal performance goals as they progress in the work and self-evaluate, and use self-talk (think of a portable coach on their shoulders whispering to them positive thoughts to entertain, feelings to experience, and actions to take) to overcome challenges. Once they are internalized, students can carry these self-regulation strategies into every aspect of their lives. In addition, with SRSD students receive explicit instruction on all stages of the writing process from preplanning through editing and revising with the support of instructional scaffolds like graphic organizers and checklists. They develop a deep understanding of different text structures and purposes, they enrich their understanding of content when writing to learn, and they monitor their own progress throughout the writing process. Students learn to own their writing and their efforts.

SRSD builds student learning capacity by developing skills and understanding for different writing purposes, both from the perspective of a reader and a writer. This allows the framework to be applied in all areas of content learning. With SRSD, writing instruction is not isolated to a literacy block or a Language Arts classroom. SRSD provides a basis for writing across content areas and for a variety of purposes, everything from a literary essay regarding the

author motivations behind rhetorical choices in a short story to a report on the emergence of Jim Crow laws during Reconstruction in the U.S. to a scientific account of the life cycle of cicadas. Students can deepen their learning on a cross-curricular basis through reading-writing connections.

The intent behind developing this instructional approach was not to capitalize on a “boxed” curriculum for schools and districts to purchase, but rather to bring EBPs into classrooms to improve students’ academic writing performance, and to supplement, not supplant, existing curriculum. And this approach works. Robert Mitchell, the retired superintendent mentioned earlier, saw a 30% increase in writing performance across his district in grades three through eight after implementing SRSD. This increase spanned students from lower- and higher-income homes. In fact, the Title I elementary school in the district outperformed the typically higher-achieving, non-Title I elementary school. Students at the middle school saw gains as well. This district moved from mid-level performance on the state writing assessment to being among the top five performing districts in the state.

In addition to the tangible increases in writing achievement, the district also saw gains in reading and math. Mr. Mitchell believes this may be attributable to the self-regulation component of SRSD which transcends writing. One of the most memorable moments of his career came when he observed a fifth-grade classroom after the teacher asked the class to begin a challenging task. The teacher was initially met with silence from her audience, but then one student stood up next to his desk and encouraged his classmates by reminding them it is always better to try and fail than not try at all. When Mr. Mitchell debriefed with the teacher later, she shared that this was a specific discussion the class had as part of SRSD instruction.

Mr. Mitchell said the decision to bring SRSD to the district was easy, based upon the wealth of data supporting the approach. Understandably, however, the cost of training and implementation for this kind of professional learning can be a barrier. While this was a consideration in Mitchell's district, he found a way to make it work by piloting SRSD at one of the lower-performing elementary schools for the first year. Once student gains were recognized, it was easier and less costly to roll out training in other buildings rather than taking on the cost district-wide all at once. The district created its own teacher leaders to facilitate the professional learning, and when those teachers started talking positively about the gains students made from this instructional approach, others wanted the training too. Staff resistance which is typical with new initiatives became much less of an issue.

While online fee-based professional training is available through two organizations, SRSD Online and *thinkSRSD*, both also offer a plethora of free information and resources on their websites to guide professional learning. Both organizations actively collaborate with the developers of SRSD, and their websites include links to videos of instruction across all grade levels, testimonials, and lesson plans that can be employed to create PD opportunities within a school or district. There also are several books on SRSD (see Harris et al., 2008; Mason et al., 2012) that can be used to conduct department-, school-, or district-wide book studies.

There may be also opportunities available to reduce the cost of training. For example, together with *thinkSRSD* and American Institute for Research, Providence College received an \$11 million grant from the U. S. Department of Education to scale up SRSD across the country. Through this grant, these agencies are bringing SRSD to 100 schools at no cost. In my former role at the Michigan Department of Education, I was involved in recruiting Michigan elementary schools to participate in this study. When your district is ready, it may be worth contacting the

two SRSD professional training organizations to find out if any similar opportunities are available.

If you are ready to bring educators in your district professional learning on writing pedagogical instruction and are looking for a framework to build more proficient writers and resilient learners, SRSD is worth exploring as an option. Based on testimonials like that of Mr. Mitchell and the solid evidence base of the writing framework, you will be making a great decision for your staff.

Other Professional Learning Resources

If SRSD does not fit into your school's or district's plans right now, there are other free resources available in addition to those found on the training websites that can help guide professional learning for staff. These tools can be integrated into extant opportunities and are a good fit for professional learning communities.

IES Practice Guides. The U.S. Department of Education's Institute of Education Sciences (IES) publishes Educator Practice Guides spanning all grades and various content areas, as well as addressing systemic topics such as drop-out prevention and designing career pathways. There are two Practice Guides specifically focused on writing instruction. Written for an audience of educators, coaches, and administrators, the Guides contain recommendations for writing instruction and suggest EBPs to support those recommendations in the classroom. They also include ratings for the EBPs applying the What Works Clearinghouse and ESSA tiered standards previously described.

The two Practice Guides for writing are directed toward elementary and secondary instruction, respectively. Revised in 2018, *Teaching Elementary School Students to Be Effective Writers* focuses in part on developing basic writing skills and fostering a welcome writing

environment, as well as writing process and assessment. It includes four recommendations with scaffolded activities and examples: (1) provide daily time for students to write, (2) teach students to use the writing process for a variety of purposes, (3) teach students to become fluent with handwriting, spelling, sentence construction, typing, and word processing, and (4) create an engaged community of writers. *Teaching Secondary Students to Write Effectively* was published in 2016 and includes three recommendations addressing cross-curricular writing, text structures and genres, writing process, interconnectedness between reading and writing, and writing assessment, and it provides many examples. The three recommendations include: (1) explicitly teach appropriate writing strategies using a Model-Practice-Reflect instructional cycle, (2) integrate writing and reading to emphasize key writing features, and (3) use assessments of students writing to inform instruction and feedback. Both Guides are excellent resources for educators to use in their classroom planning and they may be used in professional learning communities with teachers collaborating for implementation of the described practices and recommendations. Finally, they also are a great resource for administrators to generate conversations about PD needs.

CEEDAR Center Resource. Another tool that can help guide administrators' selection and prioritization of PD of writing EBPs is the *Evidence-Based Practices for Writing Instruction* created by Dr. Gary Troia in 2014, together with the Collaboration for Effective Educator, Development, Accountability, and Reform (CEEDAR) Center. This paper includes an innovation configuration (IC) matrix identifying thirty-six EBPs for writing instruction. These EBPs are organized into ten writing instruction essential component categories which include: (1) writing is an essential part of the curriculum, (2) varied approaches to the teaching of writing, (3) instruction focused on process elements, (4) instruction focused on product elements, (5)

utilizing technology in writing instruction, (6) effective assessment and feedback for writing, (7) instruction focused on writing skills, (8) learning through writing, (9) promoting independent and reflective writers, and (10) promoting a supportive writing environment. The essential components provide a structural framework and represent the big ideas of the EBPs. Along with descriptions of each EBP, examples are provided. This tool serves as a bridge between effective EBPs identified from educational research and implementation of those EBPs by contextualizing their application in a classroom setting. The IC can serve as an observational tool to identify areas where teachers may benefit from PD, or by staff to reflect on their own teaching and identify areas of writing instruction where they want to increase their focus.

Help Teachers Help Students

There are many models of professional learning to consider when planning how best to bring writing instruction to the forefront of staff learning. To be considered effective, teacher PD should include most, if not all, of the following seven elements: (1) be content focused, (2) incorporate active learning, (3) support collaboration, (4) use models of effective practice, (5) provide coaching and expert support, (6) offer feedback and reflection, and (7) be of sustained duration (Darling-Hammond et al., 2017). Teacher professional learning should also demonstrate evidence of improved student learning.

A few models worth considering when planning professional training for writing instruction are PLCs, peer coaching, lesson study, and practice-based professional development (PBPD). PLCs, also known as “inquiry teams” or “learning teams” (Rebora, 2011), are commonly used in buildings comprised of teachers either across a grade level or content area. Teachers collaborate, review student work, and solve problems. Although sometimes PLCs may not be well-implemented, when they are, they include most of the seven elements named above.

As previously noted, collaboration, active learning and planning around the IES Practice Guides or the CEEDAR EBP document could be incorporated into a grade-level or content area PLC.

Peer coaching, an interactive practice where two or more teachers work together to reflect on current practices, has a deep impact on teachers' classroom performance (Joyce & Showers, 1980; Yee, 2016). It also builds collaboration among colleagues (Yee, 2016). In contrast, a coaching model which involves an expert as the coach may also be useful for PD. This may be appropriate if a district employs literacy coaches or instructional coaches and these individuals have additional training and experience building their expertise. For coaching to be as effective as possible, careful consideration should be given to areas such as a coach's expertise, training, and authority, and other factors (Darling-Hammond et al., 2017; Mishkind, 2014).

Another possible model is the practice of lesson study. This involves teachers creating and teaching a model lesson which is then observed by other teachers who analyze it, identify strengths and weaknesses, and suggest ways to strengthen the lesson (Rebora, 2011; Viadero, 2004). Finally, PBPD is an effective model for learning about strategy instruction (Ball & Cohen, 1999; McKeown et al., 2018; Philippakos, 2020). With PBPD, teachers learn from their practice, addressing both their own learning and students' instructional needs (Philippakos, 2020).

Final Thoughts

Raising student writing proficiency is challenging, but it is not a lost cause. Many teachers struggle with providing exemplary writing instruction to their students for a variety of reasons. These may include a lack of preparation to teach writing either before entering the field or via PD, a general lack of understanding of how to teach students to become effective writers, and low confidence in their ability to provide the best writing instruction. With the help of

supportive administrators who understand the need to provide PD for writing instruction, teachers can build their writing pedagogy knowledge and efficacy. With increased knowledge, teachers will develop their confidence, share their increasingly positive attitudes about writing with their students, and help their kids to become better writers.

CHAPTER 5:

Goals for Writing Methods Instruction

in Elementary and Special Education Teacher Preparation

Preparing students to become proficient writers is one of the most important tasks teachers face, yet it is one of the most challenging aspects of the job. The findings in this dissertation and other recent information confirm that teachers share this sentiment. As previously noted, 826 National conducted a study on the state of writing education in America gathering information from experts in the field (Chiong & Oliveira, 2020). The organization conducted a second study in 2022 to survey teachers about their points of view on writing instruction and published a report with their findings (Chiong & Oliveira, 2022). Teachers shared several concerns regarding writing instruction, a few of which are highlighted here. First, teachers lack comprehensive, standards-aligned, and well-adopted curricula to guide their instruction, making it incredibly challenging to teach writing effectively. More than half of the survey respondents indicated they are left to create their own writing curriculum (Chiong & Oliveria, 2022). Given what this dissertation uncovered about how teachers are prepared to teach writing, it is no surprise that being left to their own devices to create a writing curriculum is frustrating and likely results in inconsistent and insufficient writing instruction. Additionally, teachers shared they are learning about writing instruction through district-provided PD as well as on their own initiative, but they are missing opportunities to connect, share, and discuss writing instruction with other educators (Chiong & Oliveria, 2022). Suggestions outlined in Chapter 4 address this concern by encouraging writing communities within school buildings and districts and among colleagues. Writing is challenging to do and to teach, and the more support provided to encourage each other and students, the better the outcomes for everyone. By

focusing on the sentiments from teacher voices and the information gleaned from this dissertation, steps can be identified to improve writing instruction.

In preparation for considering how to move forward, we need to better understand the research history and path of WMI leading to what it looks like today. Through the systematic literature review shared in Chapter 2, this history was brought to light. Findings from Chapter 2 revealed that when WMI is included in teacher preparation, it may be incorporated in different ways. While some TPPs teach WMI in a traditional manner involving PSTs learning about writing instruction in a college course, others integrate a practical application with students in varying ways (Braden & Gibson, 2021; Cartun & Dutro, 202; Kelley et al., 2007; Painter, 2016). Some teacher educators center WMI in purpose, such as using writing as a tool for anti-bias education and building culturally-sustaining practices (Braden & Gibson, 2021), and some highlight the relationship-building possibilities between PSTs and students that can be accomplished through writing (Cartun & Dutro, 2020). Sharing learning with colleagues (Knight & Block, 2019) and students virtually (Kuehl, 2018) allow PSTs to develop a deeper understanding of writing instruction and practices. One of the interviewees in Chapter 3 described how she implements this in her course with undergraduate students resulting in building relationships within the local community as well as between her PSTs and local students. Future educators have many opportunities to learn and practice WMI while still in their TPP programs.

This review also supported what teachers shared in the second 826 report (2022), that PD is a common means by which teachers learn about WMI. PD opportunities vary both in access and time devoted to WMI. PD trainings may be provided through school districts on either a voluntary or required basis as 14 of the articles in Chapter 2 addressed, but they are also sought

out by individual teachers. The time invested in WMI PD varies greatly, as shown in Chapter 2 where training ranged between 1 hour (Brindle et al., 2016) to training and with support spread out over a year (Fearn & Farnan, 2007). Opportunities for how administrators can learn more about providing WMI PD to their teachers are plentiful and highlighted in Chapter 4.

The findings across chapters also illuminated what is most often included as well as what is overlooked in WMI. Both TPPs and PD are heavily focused on teaching the writing process and genre-based instruction with narrative and informational writing topping the list. Mechanics, conventions, and syntax are moderately included in both types of teacher preparation. The Writing Workshop model appeared often in TPP and PD studies in Chapter 2 and was noted in syllabi and interview discussions in Chapter 3, either as an already existing framework within which to teach WMI or one that is recommended. Classroom practices were reflected more frequently in the literature review studies and survey results than the syllabi supported, but this may be due to the lack of detail provided in many syllabi. Peer collaboration, teacher modeling, and use of mentor texts were the most frequently noted practices. Concerning adaptations for students, while it seems they are being addressed in WMI, they are most commonly referenced under the umbrella of differentiation rather than being delineated into the categories provided in the codebook and survey. Since differentiation as a general category was not included in the codebook or survey, specifics about how differentiation is taught and what constitutes differentiated instruction are not included. Morphological instruction was minimally noted in the literature review studies but appeared more frequently in the survey results. This claim was not substantiated by the review of syllabi. Noticeably absent from most TPPs and PD is instruction on the theories underlying WMI. This was evident in the literature review, in survey responses,

and in syllabi as well. Other elements were sporadically referenced but consistent, comprehensive WMI continues to remain a goal for both TPPs and PD.

Two approaches to teaching WMI were mentioned in both the literature review and in data collected from surveys. The first approach is 6 Traits (or 6 + 1 Traits) which was included in TPP and PD studies in Chapter 2. While this approach was not often specifically noted in survey responses, it did appear in syllabi, particularly use of the rubrics for assessment, and it was mentioned in several interviews. The second framework for writing instruction repeatedly named was SRSD, although it is provided almost exclusively through PD. One TPP in the literature review incorporated SRSD into the course. Several interviews expressed awareness of SRSD but did not include it in the courses they taught. Since SRSD is well-recognized as an effective framework that easily allows for incorporation of many aspects of WMI, it was recommended in Chapter 4 as a path for administrators to explore.

The literature review findings show the majority of WMI instruction is still embedded in literacy methods courses rather than courses that are solely focused on writing WMI and writing pedagogy (Myers & Paulick, 2019; Myers et al, 2016; McQuitty & Ballock, 2020). This is also supported by the findings in Chapter 3 with survey responses indicating fewer than one-third of the WMI courses are solely devoted to the topic and syllabi show an even smaller percentage. When WMI is embedded in literacy or content methods courses, there continues to be tremendous variability on how the time spent on WMI. Both the findings in both Chapters 2 and 3 provide further support that writing remains a lesser priority in teacher preparation than reading in literacy instruction.

The state of literacy instruction continues to evolve based on many factors including research and policy. Current and future teachers continue to need more preparation for teaching

writing as reading remains the dominant literacy topic; however, this dissertation shows that awareness and desire to improve both the frequency and quality of WMI is present among both teacher educators and teachers themselves. Continuing to foster collaborative efforts can help bring this vision into focus. Ultimately those who stand to gain the most are the students, present and future. After all, they are the primary focus of our collective education efforts.

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- (*denotes inclusion in Systematic Literature Review)

Codebook of included articles - WMI

* Indicates required question

1. Coder *

Mark only one oval.

☐ Julie

☐ Other

2. author(s) & year, title *

3. Focus on elementary education or special education *

Mark only one oval.

☐ Elementary Education

☐ Special Education

☐ Both

☐ Other:

4. Focus on pre-service teachers or In-service teachers *

Mark only one oval.

☐ TPP

☐ PD

☐ Other:

5. Type of TPP (if applicable, check all that apply) *

Mark only one oval.

☐ UG

☐ Grad

☐ Other: _____

6. Writing theory (sociocultural, cognitive process theory, social cognitive theory, other)

7. Transcription - handwriting

8. Transcription - spelling

9. Transcription - mechanics/conventions (capitalization, punctuation)

10. Transcription - keyboarding/typing

11. Transcription - computer tech/word proc or other

12. Translation - sentences structure (anything)

13. Translation - morphology

14. translation - vocabulary in context

15. translation - writing process (anything)

16. translation - purpose

17. translation - audience

18. translation - genres (identify all mentioned: informational/expository, opinion/persuasive, narrative/story, poetry, or other)

19. Assessing student writing (add details as needed)

Check all that apply.

- ☐ Utilizing rubrics (if a specific one is referenced, e.g. 6+1 rubric), name it in "other"
- ☐ Peer feedback (e.g., peer conferencing)
- ☐ Adult feedback (e.g., teacher conferencing)
- ☐ Evaluations of writing performance based upon multiple samples of writing, using consistent scoring methods, and multiple evaluators
- ☐ Portfolios
- ☐ Other: _____

20. Strategy instruction (check all that are mentioned)

Check all that apply.

- ☐ Comprehensive writing instruction (writing process plus strategy instruction, skill instruction, and/or text structure instruction)
- ☐ Strategy instruction (explicit and systematic instruction, through modeling and guided practice with feedback, for any stage of the writing process, with the goal of independent strategy use)
- ☐ Self-regulation and metacognitive reflection (regulate the quality and productivity of writing or content learning through monitoring, reflection, and evaluation of behaviors and performance through tracking such as graphing)
- ☐ Setting product goals (set observable, specific, and individual goals for what students will accomplish in their writing)
- ☐ One or more specific strategy models (please identify strategy model(s) in "Other", e.g., Strategic Instruction Model (SIM), Brain Frames, etc.)
- ☐ Other: _____

21. Classroom practices (check all that are mentioned)

Check all that apply.

- ☐ Provide extra time for writing
- ☐ Free writing (writing without concern for grading)
- ☐ Peer collaboration
- ☐ Teacher modeling
- ☐ Creativity/imagery instruction
- ☐ Utilizing text models
- ☐ Authentic and relevant writing tasks (writing activities are personally relevant for students and serve authentic purposes and audiences)
- ☐ Motivation (teachers reinforce positive student attitudes and beliefs toward writing)
- ☐ Other: _____

22. Writing difficulties (check all that are mentioned)

Check all that apply.

- ☐ Adaptations for the environment (e.g., computer or technology use)
- ☐ Adaptations for tasks and materials (e.g., choice of topic, alternate assignment)
- ☐ Adaptations for instruction (e.g., additional instruction in spelling, grammar, mechanics based on individual writer's needs)
- ☐ Adaptations for evaluation to accommodate individual writer's needs (e.g., grades based on effort, conferencing, feedback)
- ☐ Spelling errors that may be indicative of other literacy acquisition concerns
- ☐ Dysgraphia (a writing disorder resulting in impaired handwriting and/or spelling, without reading or fine motor problems)
- ☐ Other: _____

23. Number of courses mentioned that include writing methods in TPP

Mark only one oval.

- ☐ 0
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4 or more

24. Writing methods course(s) in elementary TPP required?

Mark only one oval.

- ☐ Yes
- ☐ No

25. Writing methods course(s) in special education TPP required?

Mark only one oval.

- ☐ Yes
- ☐ No

26. Number of professional learning sessions or days mentioned that include writing methods

27. Writing methods professional learning for elementary teachers required?

Mark only one oval.

☐ Yes

☐ No

28. Writing methods professional learning for special education teachers required?

Mark only one oval.

☐ Yes

☐ No

29. Notes

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APPENDIX B: Table of Systematic Literature Review Included Studies

Table 18

Table of Included Studies

Authors	Participants	WMI Delivered	Level	Theory	Transcription Skills	Translation Skills	Assessment	Strategy Instruction	Classroom Practices	Adaptations or accommodations
Akhavan & Walsh (2020)	Elem and Spec Ed	PD	-	-	mechanics, technology used to enhance preparation and learning	sentence frames genre: narrative, opinion/argument , or report	conferencing/ feedback	strategy instruction metacognitive reflection	teacher modeling text models authentic tasks	scaffolding
Bifuh-Ambe (2013)	Elem and Spec Ed	PD	-	-	grammar	purpose writing process genre: persuasive and opinion	6 + 1 rubric conferencing portfolios	strategy instruction	creativity/ imagery instruction	scaffolding for EL and special education
Braden & Gibson (2021)	Elem	TPP	UG	-	grammar and conventions	literary devices writing process genre: narrative, poetry, and nonfiction writing		strategy instruction metacognition	text models collaborative practice quick write	
Brenner & McQuirk (2019)	Elem	TPP	UG	-	handwriting spelling	purpose writing process genre noted, not described	assessment noted, not described			
Brindle et al. (2016)*	Elem	PD	-	-	grammar conventions	sentence fluency writing process genre: narrative, informational, opinion	6+1 rubric	strategy instruction 6+1 Traits	teacher modeling	

Table 18 (cont'd)

Cartun and Dutro (2020)	Elem	TPP	UG	-		genre: poetry	conferencing		mentor texts	
Collopy (2008)	Elem	PD	-	-	conventions	sentence fluency	6+1 rubrics	6+1 Traits	teacher modeling	
						writing process				
						purpose				
						audience				
						genre: expository and narrative				
Colwell (2018)	Elem	TPP	UG & Grad	-		writing process	feedback	strategy instruction	teacher modeling	
						audience			mentor texts	
						PSTs choose genre				
DeFauw & Smith (2016)	Elem & Spec Ed	TPP	UG	-		writing process	conferencing	strategy instruction	teacher modeling	
						purpose and audience;			authentic tasks	
						genre: narrative, poetry, expository/informational				
Dismuke (2015)	Elem	PD course (not TPP)		-		writing process	conferencing	self-regulation and metacognitive reflection	collaboration	differentiated instruction
						purpose			authentic tasks	
						writing across genres				

Table 18 (cont'd)

Fearn & Farnan (2007)	Elem	PD	-	-	spelling mechanics	compound sentences, cohesion vocabulary process: organization purpose genre: informational, persuasive, autobiographical	formative assessment via quick writes		quick writes	
Fry & Griffin (2010)	Elem	TPP	UG	-	conventions	sentence fluency writing process	6+1 rubrics conferencing	6+1 Traits	collaborative writing	
Gair (2015)	Elem	TPP	UG	-	spelling, grammar, punctuation	genre: narrative “golden line” sentences writing process genre: narrative, functional, persuasive, expository, and poetry;	conferencing		teacher modeling utilizing text models authentic tasks	
Gillespie Rouse & Kihara (2017)	Elem	PD	-	-		vocabulary writing process purpose audience genre: narrative, persuasive/argumentative, expository	conferencing and feedback self-monitoring and self-assessment goal-setting reflection on growth	comprehensive writing instruction SRSD	peer collaboration teacher modeling text models authentic tasks motivation	scaffolded instruction differentiation for students who need more writing support

Table 18 (cont'd)

Grisham & Wolsey (2011)	Elem	TPP	UG	-	conventions	sentence fluency and structure	6+1 rubric	6+1 Traits		
						vocabulary word/choice				
						writing process				
						various unspecified genre				
Harris et al. (2017)	Elem	PD	-	-	spelling	sentence structure	conferencing and feedback	comprehensive writing instruction	teacher modeling	scaffolding to support learning until skill can be executed correctly and independently
						vocabulary			text models	
						writing process (POW-TREE)	self-assessment; self-regulation	SRSD	collaborative writing	
						audience				
						purpose				
						genre: opinion/persuasive, narrative, informative				
Hawkins et al. (2019)	Elem	TPP	UG	-	grammar	sentence structure	feedback/conferencing		teacher modeling	additional time
					conventions	writing process				
						audience	summative assessments		creativity/imagery instruction	
						purpose	rubric		text models	
						genre: narrative, informational, how-to, all-about, memoir, persuasive, and poetry			additional time	

Table 18 (cont'd)

Author(s)	Grade	Instructional Approach	Genre	Process	Writing Process	Instructional Strategies	Assessment	Teacher Modeling	Scaffolding
Kelley et al. (2007)	Elem and Spec Ed	TPP	UG	-	<ul style="list-style-type: none"> combining sentence 			peer collaboration	
Knight & Block (2019)	Elem	TPP	UG	-	<ul style="list-style-type: none"> genre noted but not specified writing process audience 	<ul style="list-style-type: none"> conferencing 			
Koster et al. (2017)	Elem	PD	-	-	<ul style="list-style-type: none"> genre: informational, procedural, narrative writing process by grade level (4th – 6th) purpose audience genre: description, narrative, persuasive, instruction, personal communication 	<ul style="list-style-type: none"> conferencing and feedback 	<ul style="list-style-type: none"> comprehensive strategy instruction 	<ul style="list-style-type: none"> teacher modeling text models 	<ul style="list-style-type: none"> scaffolding
Kramer-Vida et al. (2010)	Elem and Spec Ed	PD	-	-	<ul style="list-style-type: none"> Kindergarten level: sentence formation writing process purpose genre: informational 		<ul style="list-style-type: none"> goal-setting 		

Table 18 (cont'd)

Kuehl (2018)	Elem	TPP	Grad	-		writing process	conferencing	goal setting	motivation	differentiation
Levitt et al. (2014)	Elem	PD	-	-	spelling	sentences	dialogue journals conferencing		peer collaboration	
					capitalization	writing process	rubrics		text models	
					punctuation	audience				
					grammar	purpose				
						genres: narrative, expository, fairy tales, poetry				
Martin & Dismuke (2018)	Elem	TPP	UG and Grad	-	writing process	writing process	portfolio	strategy instruction	collaboration	differentiation
					purpose		assessments in general		teacher modeling	
					audience					
McKeown et al. (2019)	Elem	PD	-	-		multiple genres sentence format	conferencing	comprehensive writing instruction	collaboration teacher modeling	computers
						vocabulary	self-assessment			scribing
						writing process		SRSD		
						genre: opinion and narrative/story sentence format				
McKeown et al. (2014)	Elem and Special Ed	PD	-	-			self-assessment	comprehensive writing instruction	peer collaboration	adaptations for students with emotional or behavior disorders
						vocabulary				
						writing process	feedback	SRSD	teacher modeling	
						genre	rubric		text models	
									motivation	

Table 18 (cont'd)

McQuitty & Ballock (2020)	Elem	TPP	UG	-		writing process genre: personal narrative, information, opinion vocabulary	“receive the piece” feedback	strategy instruction	teacher modeling mentor texts	
Myers & Paulick (2020)*	Elem	TPP	UG	-		writing process genre: personal narrative	conferencing and feedback	Programs observed in field: Being a Writer 6 Traits Write Bright 4 Square	teacher modeling text models quick writes	
Myers et al. (2016)*	Elem	TPP	UG	-	conventions (electronic resources)	writing process genre (many)	conferencing and feedback portfolio	many programs involved	teacher modeling text models	
Painter (2016)	Spec Ed	TPP	Grad	-	keyboarding mechanics	writing process	rubrics self-assessment	comprehensive writing instruction SRSD	collaboration teacher modeling	computers additional instruction
Scales et al. (2019)*	Elem	TPP	UG	-		writing process audience various genres	conferencing		free write teacher modeling text models authentic tasks collaboration free write	

Table 18 (cont'd)

Troia et al. (2011)	Elem	PD	-	-	vocabulary	conferencing	strategy instruction	collaboration	computer use for differentiation
					writing process	self- assessment		"touchstone texts"	
					audience				
					genre: personal narrative, expository, poetry, fictional narrative				

*reviews of multiple programs or courses

Writing Methods Instruction in Teacher Preparation Programs - Final

Start of Block: Consent, Introduction and Instructions

You are being asked to participate in a research study about Teacher Preparation Programs (TPPs). This survey is intended for Deans, Directors, Department Chairs, Coordinators, Literacy Professors, or other individuals with knowledge of courses in TPPs. Through this study we seek to understand how preservice teachers learn about writing methods instruction in TPPs. You will be asked to answer questions about your Institution of Higher Education (IHE) relating to elementary and special education preservice teachers. You may withdraw at any time before the survey is submitted. You must be 18 years old or older to participate. As you respond the survey questions, please keep in mind the structure of your TPP courses as they are taught today. If changes in your program are expected in the future, you are invited to share that information at the end of the survey. You will have the opportunity to volunteer to participate in a follow-up interview. Should you agree, you will be asked to provide an email address at the end of the survey. Interviews may be either audio- or video-recorded.

Your responses to the survey and any information provided in an interview will be kept strictly confidential, and all responses will be summarized in a way so that no individuals or programs can be identified. The findings from this survey and interviews will be used to produce journal articles and possible presentations at academic conferences. There are no major risks to taking this survey. You can complete this survey on any phone, tablet, or computer, but a laptop or desktop computer is recommended to make responding easier. This survey is voluntary. If you decide to participate, you are free to stop at any time. Your responses to this survey and information from interviews may be used for future studies.

Please ensure that this survey is completed by someone with knowledge of your TPP's courses for undergraduate or graduate preservice teachers seeking certification either as elementary or special education teachers. Please feel free to forward the survey to another individual who has expertise in these areas. Your IHE may submit more than one survey response.

Please know that we recognize how incredibly busy you are. This survey should only take 10-15 minutes to complete. To express appreciation for the time you are taking to complete the survey, we will enthusiastically share an individualized report containing the results of this study which will include information about your IHE compared to the aggregate average responses of other respondents. This survey is being sent to approximately 200 TPPs across eight different states.

Please contact one of the investigators, either Julie S. Brehmer, at shidlerj@msu.edu, or Gary A. Troia, at gtroia@msu.edu, if you should have any questions about your involvement in the research study.

- ☐ I consent, begin the study (1)
- ☐ I do not consent, I do not wish to participate (2)
-

Q5 Definitions for terms as they are used in this survey:

Preservice teacher/teacher candidate/future educator: An individual enrolled in a teacher preparation program which will result in certification as an elementary and/or special education teacher. Elementary certification is intended to include kindergarten through sixth grade, so this may involve more than one certification track in your state.

Teacher Preparation Program (TPP): A program at an Institution of Higher Education (IHE) that prepares future educators for certification as elementary and/or special education teachers.

Writing methods instruction: Instruction that addresses varying aspects of how to teach writing. This may include one or more of the following: Writing theory (e.g., cognitive, social construction, etc.), transcription skills (e.g., handwriting including letter formation, keyboarding/typing, spelling, and mechanics), and translation skills including grammar, semantics, sentence structure or syntax, writing processes, and genre study. It may also include assessment, reading-writing connections, classroom practices, adaptations, and writing problems or disabilities.

End of Block: Consent, Introduction and Instructions

Start of Block: Demographics

Q2 Please provide the following information.

☐ Name of IHE (1) _____

☐ Name of academic unit (college, school or department) offering the teaching degree or certificate/endorsement (2) _____

☐ Please provide your name, title and role here, in case multiple people from your IHE respond to this survey (3) _____

Q3 Is the IHE a public or private institution?

☐ Public (1)

☐ Private (2)

Q4 Which degree(s) can a preservice teacher who completes your IHE's TPP for elementary or special education teacher certification receive? Select all that apply. If applicable, below each

degree please list all subjects in which a preservice teacher can earn a degree for a major outside of education.

- ☐ Bachelor of Arts (1) _____
 - ☐ Bachelor of Education (2) _____
 - ☐ Bachelor of Science (3) _____
 - ☐ Master of Arts (4) _____
 - ☐ Master of Education (5) _____
 - ☐ Master of Science (6) _____
 - ☐ Education Specialist (7) _____
 - ☐ Other (8) _____
-

Q6 Is your TPP accredited?

- ☐ Yes, by the Council for the Accreditation of Educator Preparation (CAEP) (1)
 - ☐ Yes, by the Association for Advancing Quality in Educator Preparation (AAQEP) (2)
 - ☐ Yes, by other (please identify) (3) _____
 - ☐ No, it is not accredited (4)
-

Q7 What is the duration of the typical undergraduate program/course of study to complete the TPP for teacher certification, including the time to complete any preservice student teaching, internship, or practicum requirements? One year is defined as an academic year including fall/spring semesters or fall/winter/spring trimesters.

- ☐ Less than 4 years (1)
 - ☐ 4 years (2)
 - ☐ More than 4 but less than 5 years (3)
 - ☐ 5 years (4)
 - ☐ More than 5 years (5)
 - ☐ Other (6) _____
 - ☐ Our TPP does not offer an undergraduate degree (7)
-

Q8 What is the duration of the typical graduate program/course of study (masters or education specialist degree) to complete the TPP for teacher certification, including the time to complete

any internship or practicum requirements? One year is defined as an academic year including fall/spring semesters or fall/winter/spring trimesters.

- ☐ Less than 1 year (1)
 - ☐ 1 year (2)
 - ☐ More than 1 but less than 2 years (3)
 - ☐ 2 years (4)
 - ☐ More than 2 but less than 3 years (5)
 - ☐ 3 years (6)
 - ☐ More than 3 years (7)
 - ☐ Other (8) _____
 - ☐ Our TPP does not offer a graduate degree (9)
-

Q9 Are preservice teachers required to teach writing in any capacity in conjunction with their student teaching internship/practicum experience?

- ☐ Yes (1)
 - ☐ No (2)
 - ☐ Other (3) _____
-

Q10 Does your state require preservice teachers to pass an assessment demonstrating an understanding of writing methods instruction as a condition of certification or renewal? Select all that apply.

- ☐ Yes, for new elementary certified teachers (1)
- ☐ Yes, for elementary certificate renewal (2)
- ☐ Yes, for new special education certified teachers (3)
- ☐ Yes, for special education certificate renewal (4)
- ☐ No (5)
- ☐ Other (6) _____

End of Block: Demographics

Start of Block: Teacher Preparation Program Courses

Q11 Are students in your elementary or special education TPP required to take a course that includes writing methods instruction?

- ☐ Yes, for both elementary and special education certification (1)
- ☐ Only for elementary certification (2)
- ☐ Only for special education certification (3)
- ☐ No (4)



Q12 This question seeks information about required and elective courses offered in your TPP that include writing methods instruction. You will see the two types of teaching certification, elementary and special education, listed in the left column. For each type of certification, write

the number of courses that fit the description written in each column heading. If no courses are offered for a category, enter 0.

	Required course(s) devoted solely to writing methods instruction (1)	Elective course(s) devoted solely to writing methods instruction (2)	Required reading or literacy methods course(s) with embedded writing methods instruction (3)	Required content area methods course(s) (e.g., math, social studies, science) with embedded writing methods instruction (4)
Elementary certification (1)				
Special education certification (2)				

Display This Question:

If If This question seeks information about required and elective courses offered in your TPP that incl... Text Response Is Greater Than 0

Or Or This question seeks information about required and elective courses offered in your TPP that incl... Text Response Is Greater Than 0

Or Or This question seeks information about required and elective courses offered in your TPP that incl... Text Response Is Greater Than 0

Or Or This question seeks information about required and elective courses offered in your TPP that incl... Text Response Is Greater Than 0

Q13 For up to three required or elective courses devoted solely to writing methods instruction, please provide each course title, number, and semester when each course will be taught next.

☐ Course 1 title and number (1)

☐ When will course 1 be taught next? (2)

☐ Course 2 title and number (3)

☐ When will course 2 be taught next? (4)

☐ Course 3 title and number (5)

☐ When will course 3 be taught next? (6)

Display This Question:

If If This question seeks information about required and elective courses offered in your TPP that incl... Text Response Is Greater Than 0

Or Or This question seeks information about required and elective courses offered in your TPP that incl... Text Response Is Greater Than 0

Or Or This question seeks information about required and elective courses offered in your TPP that incl... Text Response Is Greater Than 0

Or Or This question seeks information about required and elective courses offered in your TPP that incl... Text Response Is Greater Than 0

Q14 Please upload a syllabus for each course devoted to writing methods instruction. If there is more than one course, please condense the syllabi in a zip file and then upload the zipped file.

Display This Question:

If If This question seeks information about required and elective courses offered in your TPP that incl... Text Response Is Greater Than 0

Or Or This question seeks information about required and elective courses offered in your TPP that incl... Text Response Is Greater Than 0

Or Or This question seeks information about required and elective courses offered in your TPP that incl... Text Response Is Greater Than 0

Or Or This question seeks information about required and elective courses offered in your TPP that incl... Text Response Is Greater Than 0

Q15 For up to four reading, literacy, or content area methods courses that embed writing methods instruction, please provide each course title, number, and the semester when each course will be taught next.

☐ Course 1 title and number (1)

☐ When will course 1 be taught next? (2)

☐ Course 2 title and number (3)

☐ When will course 2 be taught next? (4)

☐ Course 3 title and number (5)

☐ When will course 3 be taught next? (6)

☐ Course 4 title and number (7)

☐ When will course 4 be taught next? (8)

...

Display This Question:

If If This question seeks information about required and elective courses offered in your TPP that incl... Text Response Is Greater Than 0

Or Or This question seeks information about required and elective courses offered in your TPP that incl... Text Response Is Greater Than 0

Or Or This question seeks information about required and elective courses offered in your TPP that incl... Text Response Is Greater Than 0

Or Or This question seeks information about required and elective courses offered in your TPP that incl... Text Response Is Greater Than 0

Q16 Please upload a syllabus for each reading, literacy, or content area course with embedded writing methods instruction. If there is more than one course, please condense the syllabi in a zip file and then upload the zipped file.

End of Block: Teacher Preparation Program Courses

Start of Block: Content of Writing Methods Instruction Courses

Q17 The following questions relate to the content of the writing methods instruction courses identified in previous questions, whether writing methods instruction is the sole topic of the course or is embedded. For each question, select all responses that apply.

Q18 Please select all writing theories covered in any courses previously identified.

- ☐ Sociocultural theory (1)
 - ☐ Cognitive process theory (2)
 - ☐ Social cognitive theory (3)
 - ☐ Other: please identify any additional theories (4)
-
- ☐ ☒ Theory is not included in writing methods instruction (5)
-

Q19 Transcription skills include handwriting (including letter formation), spelling, mechanics, keyboarding or typing, and computer or other technology use. Please select all transcription skills for which instruction is included in any courses.

- ☐ Handwriting (including letter formation) (1)
 - ☐ Spelling (2)
 - ☐ Mechanics (e.g., capitalization and punctuation) (3)
 - ☐ Keyboarding/Typing (4)
 - ☐ Computer technology use (word processing, etc.) (5)
 - ☐ Other (6) _____
 - ☒ None of the above (7)
-

Q20 Translation skills are grounded in oral language and include grammar, semantics, syntax, and writing processes. Please select the translation skills for which instruction is included in any courses.

- ☐ Parts of speech (e.g., noun, verb, adjective, etc.) (1)
 - ☐ Sentence structure/syntax (e.g., sentence formation, types, word order, sentence expansion and sentence combining) (2)
 - ☐ Morphology (smallest parts of words with meaning, e.g., root, base, prefix, suffix) (3)
 - ☐ Vocabulary use in context (4)
 - ☐ Writing process - planning (5)
 - ☐ Writing process - writing/drafting (6)
 - ☐ Writing process - revising and editing (7)
 - ☐ Writing process - publishing (8)
 - ☐ Other (9) _____
 - ☒ None of the above (10)
-

Q21 Translation skills also include genre studies, text structures, purposes of writing, and audience awareness. Please select all translation skills for which instruction is included in any courses.

- ☐ Purposes of writing (1)
 - ☐ Audience awareness (2)
 - ☐ Narrative/story (3)
 - ☐ Informative/expository (4)
 - ☐ Opinion/argument (5)
 - ☐ Poetry (6)
 - ☐ Other (7) _____
 - ☒ None of the above (8)
-

Q22 Writing methods instruction may include assessing student writing. Please select all assessment practices covered in any courses.

☐

Utilizing rubrics (1)

☐

Verbal or written feedback provided during the writing process from peers (2)

☐

Verbal or written feedback provided during the writing process from adults (e.g., teacher conferencing) (3)

☐

Evaluations of writing performance are based on multiple samples of different types of writing, using consistent scoring methods and multiple evaluators) (4)

☐

Other (5) _____

☐

☒ None of the above (6)

Q23 Writing methods instruction may include a focus on the connection between reading and writing. Please select all practices covered in any courses.

☐

Taking notes (1)

☐

Summarization instruction (how to summarize text through explicit and systematic instruction) (2)

☐

Inquiry instruction (teach how to develop content for writing by analyzing data derived from investigations/experimentation, textual/source analysis, or already provided information) (3)

☐

Writing in response to text (brief questions and answers as well as more extended responses) (4)

☐

Writing to learn (writing is a mechanism for learning content area or topical information) (5)

☐

Other (6) _____

☐

☒ None of the above (7)

Q24 Writing methods instruction may include practices related to strategy instruction. Please select all instructional practices and/or identify specific strategy models covered in any courses.

☐

Comprehensive writing instruction (writing process plus strategy instruction, skill instruction and/or text structure instruction) (1)

☐

Strategy instruction (explicit and systematic instruction, through modeling and guided practice with feedback, for any stage of the writing process, with the goal of independent strategy use) (2)

☐

Self-regulation and metacognitive reflection (regulate the quality and productivity of writing or content learning through monitoring, reflection, and evaluation of behaviors and performance through tracking such as graphing) (3)

☐

Setting product goals (set observable, specific, and individual goals for what students will accomplish in their writing) (4)

☐

One or more specific strategy models (please identify strategy model(s), e.g., Strategic Instruction Model (SIM), Brain Frames, etc.) (5)

☐

Other (6) _____

☐

☒ None of the above (7)

Q25 Writing methods instruction may include other classroom practices. Please select all classroom practices covered in any courses.

- ☐ Provide extra time for writing (1)
 - ☐ Free writing (writing without concern for grading) (2)
 - ☐ Peer collaboration (3)
 - ☐ Teacher modeling (4)
 - ☐ Creativity/imagery instruction (5)
 - ☐ Utilizing text models (6)
 - ☐ Authentic and relevant writing tasks (writing activities are personally relevant for students and serve authentic purposes and audiences) (7)
 - ☐ Motivation (teachers reinforce positive student attitudes and beliefs toward writing) (8)
 - ☐ Other (9) _____
 - ☒ None of the above (10)
-

Q26 Writing methods instruction may include recognizing when students experience writing difficulties and adapting instruction accordingly. Please select all applicable topics covered any courses.

- ☐ Adaptations for the environment (e.g., computer or technology use) (1)
- ☐ Adaptations for tasks and materials (e.g., choice of topic, alternate assignment) (2)
- ☐ Adaptations for instruction (e.g., additional instruction in spelling, grammar, mechanics based on individual writer's needs) (3)
- ☐ Adaptations for evaluation to accommodate individual writer's needs (e.g., grades based on effort, conferencing, feedback) (4)
- ☐ Spelling errors that may be indicative of other literacy acquisition concerns (5)
- ☐ Dysgraphia (a writing disorder resulting in impaired handwriting and/or spelling, without reading or fine motor problems) (6)
- ☐ Other (7) _____
- ☐ ☒ None of the above (8)

End of Block: Content of Writing Methods Instruction Courses

Start of Block: Thank you!

Q27 We know your time is valuable. If there is any other information you would like to share or expand upon, including whether there are planned changes to your program in the future, please include the information in the box below.

Q28 If you would be willing to be contacted for a follow-up interview, please leave your email address below.

End of Block: Thank you!

APPENDIX D: Semi-Structured Interview Questions

1. What is your role in elementary and/or special education teacher preparation?
2. What are your responsibilities related to TPP courses?
3. How long have you been involved in preparing future educators?
4. Tell me about your experience in TPPs related to literacy instruction.
5. If interviewee is a director/coordinator/person in charge of TPP:
 - a. Are there specific requirements for instructors of courses that embed writing methods instruction?
 - b. How are determinations made regarding what should be included in literacy courses for elementary and special education preservice teachers?
 - c. Do teacher educators have autonomy over what they teach in the courses that embed writing methods instruction?
 - d. Are elementary and special education preservice teachers required to teach writing during their student teaching internship/practicum?
 - e. [Follow-up questions based on survey responses re: whether writing methods instruction is taught in a dedicated course or embedded in literacy/reading and/or content area courses]
6. If interviewee is an instructor of TPP courses:
 - a. What is your experience (including length of time) preparing elementary and/or special education preservice teachers?
 - b. What is your experience with writing methods instruction? (ask about all elements: theories, transcription skills, translation skills, assessment, reading-

writing connections, classroom practices, adaptations, students with writing problems or disabilities)

- c. How did you gain your experience in writing methods?
 - d. Are you required to include writing methods instruction in the course(s) you teach?
 - e. Do you have autonomy over what is included in the course(s) you teach? If not, how is it determined what should be included.
7. Ask any clarifying questions based on information provided in survey.

TPP Syllabus Coding

1. IHE

2. State

3. Course level

Check all that apply.

- ☐ UG
☐ Grad

4. Program

Check all that apply.

- ☐ Elementary
☐ Special Education

5. Course Title

6. Course Number

7. Course Description

8. Type of course

Mark only one oval.

- ☐ Required - writing methods only
- ☐ Elective - writing methods only
- ☐ Embedded in required literacy methods or reading methods course
- ☐ Embedded in required content area methods course
- ☐ Other: _____

9. Number of weeks/days/class periods spent on writing methods

10. Theory included?

Check all that apply.

- ☐ Sociocultural
- ☐ Cognitive
- ☐ Other
- ☐ Not included

11. Transcription included?

Check all that apply.

- ☐ Handwriting (including letter formation)
- ☐ Spelling
- ☐ Mechanics (e.g., capitalization, and punctuation)
- ☐ Keyboarding/Typing
- ☐ Computer technology use (word processing, etc.)
- ☐ Other: _____

12. Translation included?

Check all that apply.

- ☐ Parts of speech (e.g., noun, verb, adjective, etc.)
- ☐ Subject and predicate
- ☐ Sentence structure/syntax (e.g., sentence formation, types, word order, sentence expansion and combining)
- ☐ Morphology
- ☐ Vocabulary use in context
- ☐ Writing process - planning
- ☐ Writing process - writing/drafting
- ☐ Writing process - revising
- ☐ Writing process - publishing
- ☐ Other: _____

13. Translation/genre included?

Check all that apply.

- ☐ Purposes of writing
- ☐ Audience awareness
- ☐ Narrative/story
- ☐ Informative/expository
- ☐ Opinion/argument
- ☐ Poetry
- ☐ Other (please identify all other genres, e.g., biography, folktale, advertisement, editorial)
- ☐ Other: _____

14. Assessment included?

Check all that apply.

- ☐ Utilizing rubrics
- ☐ Verbal or written feedback provided during the writing process from peers
- ☐ Verbal or written feedback provided during the writing process from adults (e.g., teacher conferencing)
- ☐ Evaluations of writing performance are based on multiple samples of different types of writing, using consistent scoring methods and multiple evaluators
- ☐ Other: _____

15. Reading-writing connection included?

Check all that apply.

- ☐ Taking notes
- ☐ Summarization instruction (how to summarize text through explicit and systematic instruction)
- ☐ Inquiry instruction (teaching student to develop content for writing by analyzing data derived from various sources)
- ☐ Writing in response to text (brief questions and answers as well as more extended responses)
- ☐ Writing to learn (writing is a mechanism for learning content area or topical information)
- ☐ Other: _____

16. Strategy instruction included?

Check all that apply.

- ☐ Comprehensive writing instruction (writing process plus strategy instruction, skill instruction and/or text structure instruction)
- ☐ Strategy instruction (explicit and systematic instruction, through modeling and guided practice with feedback, for any stage of the writing process, with the goal of independent strategy use)
- ☐ Self-regulation and metacognitive reflection (regulate quality and productivity of writing through monitoring, reflection, and evaluation of behaviors and performance through tracking such as graphing)
- ☐ Setting product goals (set observable, specific, and individual goals for what students will accomplish in their writing)
- ☐ Other: _____

17. Other EBP included?

Check all that apply.

- ☐ Provide extra time for writing
- ☐ Free writing (writing without concern for grading)
- ☐ Peer collaboration
- ☐ Teacher modeling
- ☐ Creativity/imagery instruction
- ☐ Utilizing text models
- ☐ Authentic and relevant writing tasks (writing activities are personally relevant for students and serve authentic purposes and audiences)
- ☐ Motivation (teachers reinforce positive student attitudes and beliefs toward writing)
- ☐ Other: _____

18. Adaptations/disabilities addressed?

Check all that apply.

- ☐ Adaptations (teachers adapt the environment, tasks and materials, instruction, and evaluation to accommodate individual writer's needs)
- ☐ Spelling errors that may be indicative of other literacy acquisition concerns
- ☐ Dysgraphia
- ☐ Other: _____

19. Information about instructor

20. Other relevant noticings

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