ENHANCING WRITING QUALITY IN SECONDARY CLASSROOMS: A STUDY OF THE WRITING WITH PURPOSE ROUTINE

Suzanne Myers
University of Kansas

Jocelyn Washburn
University of Kansas

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Abstract
Research suggests that students may become more skilled writers when they write for a meaningful purpose (Block & Strachan, 2019). Measures of adolescent writing performance in the U.S. reveal a need for adolescents to improve their writing skills, warranting the exploration of instructional approaches that engage students in writing for meaningful purposes. This study examined the influence of an instructional routine called *Writing with Purpose* on four high school English language arts classrooms in a Midwest U.S. school. Using a pre/post design, 37 student writing samples were evaluated using three validated tools. Results showed statistically significant improvements in paragraph structure and all six traits of writing, with medium to large effect sizes. Findings suggest the *Writing with Purpose* routine may be an effective instructional approach for improving adolescent writing quality.

Keywords: writing instruction, adolescent literacy, motivation, instructional methods

In recent years, research focused on motivation in adolescent learning has highlighted its critical role in engaging adolescents in academic tasks (Louick & Scanlon, 2021). More specifically, there is strong theoretical research indicating that adolescent motivation plays a key role in writing achievement (Wright, 2021), yet there are few studies of interventions that capitalize on incorporating motivating factors into writing instruction. Motivating factors for adolescents include writing self-efficacy (Bruning et al., 2013) and whether students see value in a writing task (Graham, 2018). Adolescents need more authentic writing opportunities that have clear utility in their world both inside and outside of school. However, research connecting this sort of highly motivating authentic writing task with writing achievement has largely been done in younger grades (e.g., Troia, 2013), and more studies are needed to show the impact of highly motivating writing tasks on adolescent students' writing quality.

It is difficult to know precisely the large-scale trends of student writing in the U.S. since the

National Assessment of Educational Progress (NAEP) has not released a report on writing since 2011 (NCES, 2012). Recent research indicates that educators do believe writing is an increasingly important skill, especially given the complex demands of 21st century communication (Graham, 2018; Deane, 2022). However, large-scale surveys and observational studies show that, despite these beliefs, writing receives relatively little instructional time in K-12 classrooms, and students are given few extended or varied writing opportunities (Applebee & Langer, 2016; Coker et al., 2016; Graham et al., 2023).

Students can become more skilled writers when they write for a meaningful purpose, (Block & Strachan, 2019), but teachers may feel pressure to limit student writing opportunities due to high-stakes testing demands (McMillan, 2005), a limiting philosophy of curriculum scope and sequence in their teaching context, or a myriad of external factors that cause them to "stick to the script" and not explore new ways to engage their students in authentic writing opportunities (Narayanan & Shields, 2024). These recent and growing restrictions on teacher autonomy may be directly impacting students' ability to improve as writers by reducing the number of motivating writing opportunities teachers could facilitate. To test the impact of adolescent writing motivation on adolescent writing quality, we worked with four high school teachers to implement a new writing instructional routine called *Writing with Purpose*.

Background and Theoretical Support for *Writing with Purpose* Routine

This study was designed to measure the influence of a researcher-developed instructional routine called *Writing with Purpose* (WWP) on student writing quality. The WWP routine combines two bodies of work relevant to adolescent writing into a single instructional routine appropriate for broad use in secondary classrooms.

The first body of work informing the WWP routine is the Institute of Education Sciences' (IES) Practice Guide titled *Teaching Secondary Students to Write Effectively*. The Guide outlines three recommendations for teaching secondary students: 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 student writing to inform instruction and feedback. The WWP routine aligns with these recommendations by using a model-practice-reflect instructional cycle, asking students to examine and highlight relevant features of models to inform their writing, and by providing time and structure for students to test the effectiveness of their work on readers and reflect on changes that might make their writing more effective.

The routine also builds on these recommendations in several important ways. For example, it draws from research findings that writing for an authentic audience can improve writing quality (Block & Strachan, 2019; Rosen, 1973). Students using the WWP routine test their work with a reader who is representative of their intended audience and use feedback from that reader to inform self-reflection and revision of their work.

Another important component the routine expands upon is explicit instruction, made more accessible for teachers through an instructional sequence called Cue-Do-Review, detailed in the methods section. This instructional sequence is followed in each of the routines that are part of the Strategic Instruction Model (SIM™). SIM instructional tools have been developed and validated by the Center for Research on Learning at the University of Kansas, and they provide a comprehensive approach for improving adolescent and content literacy outcomes (Deshler et al., 2001; Schumacher & Fisher, 2021). SIM includes two arms that work together to improve literacy outcomes: Content Enhancement Routines (CER) and Learning Strategies. CERs are designed to help teachers think about, adapt, and present critical content in a student-friendly manner. They provide guidance for teachers and students to collaboratively construct graphic organizers that improve students' understanding of course concepts and perform higher order thinking and reasoning. The WWP

routine will be part of the SIM suite of resources, and as such, it includes evidence-based structures and practices that are hallmarks of the routines.

The second major body of work informing the WWP routine is adolescent motivation. Human motivation, as a topic of study primarily housed in the field of psychology, is influenced by an abundance of theories and models that help us understand why human beings are compelled to act in a few ways. Recent work by Urhahne and Wijnia (2023) sought to integrate these theories by proposing a basic motivational model through which more specific models could be described. A central premise underlying their model is that "motivated behavior arises from the interaction between the person and the environment" (p. 3). The basic motivational model they propose is as follows: Situation → Self → Goal → Action → Outcome → Consequences. That this model uses situation and self as a starting point makes it especially fitting as a motivational model for adolescents, who are developmentally in a self-focused phase of life (Carvalho & Veiga, 2022; National Institute of Mental Health, 2023). The WWP routine capitalizes on human beings' natural propensity to be driven to action by situations they personally experience. It aligns with this motivational theory by guiding teachers and students through a process of explicitly identifying the situations and environments students engage with frequently, and by helping students explore issues within those situations and environments that they feel compelled to speak about or influence in some way.

Adolescent Writing Performance in the United States

The WWP routine is intended to support teachers in their work to engage adolescents in extended writing experiences, and to provide cognitive supports that can help them become stronger writers. Research on adolescent writing suggests a routine like WWP could address some shortcomings of writing instruction and adolescent writing that have emerged over the last several decades.

One of those shortcomings is simply providing focused instructional time for writing in adolescent classrooms. Research is clear that effective writing skills are critical for students' future success in work and life (Graham & Perin, 2007), but time spent on writing instruction does not reflect this imperative. The time adolescents spend writing during each school day is less than most spend eating lunch or moving from class to class. In a recent study surveying U.S. middle and high school teachers' writing instructional practices through a full school year, teachers reported spending only about 16 minutes per school day engaging students in planning, writing, or revising their writing, though times varied widely (Graham et al., 2025). This study also found that most writing assignments were short and did not require the use of digital tools, a concerning finding considering the growing importance of building competence in the use of digital technologies (Washburn & Myers, 2023).

There are likely several contributing factors to writing instruction only taking place for 16 minutes across adolescents' seven-hour school day. One, students in secondary grades typically see several teachers throughout their school day, and although writing has been found to be an effective tool for engaging students in deeper learning in every content area (Thomas B. Fordham Institute, 2021), it is typically only a focus in English language arts (ELA) classrooms. Even there, writing is only part of the focus, as ELA teachers are typically required to cover standards in reading, writing, speaking, listening, and language.

Another common barrier to students receiving writing instruction is teachers do not feel self-efficacious about teaching writing or impacting student writing, particularly for students who struggle (Poch et al., 2020). This is likely due to teachers receiving little or no preparation in how to teach writing to adolescents (Gillespie et al., 2014), and varying levels of support within their school context for teaching writing (Kiuhara et al., 2009; Graham et al., 2014).

Given these challenging factors, it is not surprising that most of students' school-based writing requires only short responses, and there are significant differences in writing output for students with disabilities and English learners (Wilcox & Jeffrey, 2014). There may, however, be some hope for engaging students in more frequent and lengthier writing by tapping into their propensity to write for non-school purposes. This area of research is closely related to research on digital literacies, because much of students' non-school writing is done via technology-based platforms. Vaughan (2020) suggests it is also an area ripe for study because "despite the breadth of research on out-of-school writing, educators still lack a useful understanding of what this knowledge means for in-school writing instruction and how, if at all, it should be operationalized in classrooms" (p. 529).

Role of Purpose in Improving Writing Instruction and Performance

Given the challenges teachers face in facilitating effective writing instruction, the vast under-instructing of writing across students' school day, and the need to improve students' opportunities to practice and improve their writing, it makes sense to leverage what we know about high-quality instruction as well as students' interests and passions to create a powerful instructional routine to assist educators in their work. *Writing with Purpose* seeks to pull together research on motivation, adolescent literacy development, and adolescent writing into a single instructional routine. Its instructional sequence blends together a basic motivational model (Situation → Self → Goal → Action → Outcome → Consequences; Urhahne & Wijnia, 2023), research on adolescent writing motivation (Block & Strachan, 2019; Wright, 2021, Graham, 2018), and evidence-based practices for adolescent writing instruction as outlined in the IES Practice Guide, Teaching Secondary Students to Write Effectively (Graham et al., 2016). The routine also seeks to present an approach to writing instruction that integrates critical thinking into the writing instructional process, along with components of craft and structure.

Present Study

This study used a single-arm pre/post design to measure differences in writing quality before and after use of the *Writing with Purpose* routine. We expected a difference in mean scores of post-test measures following the use of the routine. Data collection and analysis centered around the research question: Does the *Writing with Purpose* instructional routine improve the quality of student writing?

Methods

The present study used a pre/post design with matched pairs to measure 37 high school students' writing quality on three measures before and after learning the *Writing with Purpose* routine. Data analysis included paired sample t-tests.

Setting and Participants

The study occurred during the 2023–2024 academic year at a Midwestern public high school (grades 9-12) with IRB approval. Four ELA teachers implemented the *Writing with Purpose* routine as part of regular instruction. Researchers analyzed writing from 37 students (ages 14-18) whose caregivers provided consent. Gender and race/ethnicity reporting was optional; of 32 respondents, 65.6% identified as male and 34.3% as female. Twenty-one reported White only, two Native American only, one Hispanic only, and seven as multiracial (combinations of Black, White, Native American, Asian, and Hispanic).

Instructional Intervention

In this study, teachers used the WWP routine to support their students to write a persuasive

piece. The decision to focus on persuasive writing was made by teachers and researchers together as a way to control in part for effects of genre differences on writing performance. The WWP routine consists of seven cognitive strategy steps following a mnemonic "PURPOSE." Each step has its own theoretical base and supporting research, and the mnemonic helps students learn and remember the names of the steps: Step 1. Plan a purpose; Step 2. Understand their intended audience; Step 3. Review models of similar writing; Step 4. Ponder and record model "moves" on a checklist; Step 5. Organize their ideas; Step 6. Scribe their ideas; and Step 7. Evaluate and reflect on the impact of their writing.

Plan a purpose. The first step engages students and teachers in identifying an authentic purpose for writing. Students write more effectively when their work serves a clear purpose (Block & Strachan, 2019). Teachers and students consider: *What do we expect to happen when someone reads this? How will we know it's effective?* Rather than relying on broad genre purposes (e.g., narrative = entertain), this step pushes for specificity.

Understand intended audience. Students consider *For whom am I writing?* Skilled writers anticipate readers' needs and benefit from involving them in revision (Marsh, 2018; Moore & MacArthur, 2012).

Review models. Teachers help students examine mentor texts for structure, tone, and conventions—an evidence-based strategy for adolescent writers (Graham & Perrin, 2007).

Ponder model moves. Students analyze models to answer: *What does this writer do that might work for me?* They record 4-5 moves on a checklist for self-assessment and reflection (Jagaiah et al., 2019).

Organize ideas. Students plan structure by asking: *What should this writing look like? How should it be organized?* Organization should align with purpose and genre (Bazerman et al., 2017). Other Strategic Instruction Model (SIM) routines with graphic organizers aligned to specific types of thinking (e.g., framing main ideas and details; supporting a claim with evidence and reasoning) can support this step (Bulgren et al., 2009).

Scribe ideas. Students draft using their outline and checklist from prior steps.

Evaluate impact. Students test whether their writing achieved its purpose by asking: *Did it work? What's effective and what needs improvement?* This design-based approach addresses concerns about peer review (MacArthur, 2016; Hoyardas et al., 2014; Saddler et al., 2014) and uses authentic readers identified in Step 2 (Hanington, 2003).

The steps are also presented on a graphic organizer called the WWP Guide that teachers co-construct with their students. The WWP guide contains seven sections, each with a prompt to guide students' thinking. The sections are numbered to indicate order of the steps in the routine.

Like other SIM Content Enhancement Routines, the WWP routine follows the Cue-Do-Review instructional sequence to help students and teachers co-construct the WWP Guide using the PURPOSE steps. In the "Cue" phase, the teacher cues the students that the routine will be used, provides an advance organizer showing how the routine will be used and how it will help them, and explains what students are expected to do. In the "Do" Phase, the teacher and students work in partnership to co-construct the WWP Guide. When the WWP routine is complete, the students' completed guides show their plans for what content to include, how to organize their work, and how to assess the effectiveness of their work with authentic readers. All students create their own guides during the lesson and use them as support as they write. In the "Review" Phase of the routine, teachers and students review information that has been covered and discuss how the routine helped students to prepare to write. Any misunderstandings can be clarified and resolved. An instructional guidebook supports teachers to co-construct WWP Guides by providing questioning prompts for each step (Myers & Washburn, In Press).

Procedures

First, participating teachers gave their students a pre-measure persuasive writing prompt. Students submitted their responses through a Qualtrics form. Teachers then watched an overview video about The *Writing with Purpose* Routine. Teachers were provided a guidebook to accompany the video and electronic copies of instructional resources. After watching the overview video, one researcher met with each teacher to confirm their understanding of the instructional procedures and support them to draft their WWP Guide. When teachers were finished with the WWP Guide and before using it with students, they sent their guides to the second researcher to review, provide feedback, and record scores on a fidelity checklist. The fidelity checklist outlined criteria for each component of a WWP Guide. The researcher documented which components were present and correct, present but needed improvement, or not present. The researcher provided descriptive feedback per component to teachers to bring their guides to full fidelity prior to using them with students. Teachers used the WWP routine to guide their writing instruction during seven separate 45-minute class sessions over the course of one month. Written work produced by following the steps of the WWP routine served as a post-measure of student writing performance.

Data Sources

We analyzed student writing samples collected before and after WWP implementation. Teachers administered two argumentative writing prompts: one served as the pre-intervention measure, and the other was used during instruction and evaluated as the post-intervention measure. Prompts were aligned with course content and included an element of student choice. Pre-writing tasks included arguments about literary texts (e.g., "Everyday Use," *Darius the Great Is Not Okay*) and school-based issues. Post-writing tasks included persuasive pieces such as social media campaigns, proposed policy changes, and advocacy for school services.

Student writing was evaluated using three measures: the *Six Traits Writing Rubric* (Education Northwest, 2018), the *Paragraph Writing Score Sheet* (Schumaker & Lyerla, 1993), and the *Sentence Writing Score Sheet* (Schumaker & Sheldon, 2024). The Six Traits Writing Rubric assesses Ideas, Organization, Voice, Word Choice, Sentence Fluency, and Conventions across multiple text types. Each trait is scored on a 1-5 scale, with higher scores indicating greater control and effectiveness. The rubric has demonstrated strong reliability and validity and provides clear criteria for consistent scoring (Arter & McTighe, 2001; Kozlow & Bellamy, 2004; Education Northwest, 2018). The Paragraph and Sentence Writing Score Sheets use explicit scoring procedures with defined criteria. The Paragraph Writing Score Sheet evaluates paragraph structure, coherence, and language features, with mastery defined as earning 80% of possible points. The Sentence Writing Score Sheet evaluates sentence completeness, sentence type, and punctuation accuracy, with mastery levels set at 100% for complete sentences, 50% for complicated sentences, and 66% for internal punctuation accuracy.

Data Analysis

Pre/post writing samples were scored using three evaluation tools with high interrater reliability. Raters were four former teachers, independent from this study, who had prior experience using the measures. Scoring training included evaluating a mock writing sample separately and comparing scores to discuss decision-making for future consistency. Writing samples were submitted according to codes to ensure anonymity. Raters were given all 37 pre/post writing samples to evaluate independently. Scores from each rater were compiled and averaged per category of scores (i.e., key trait or score sheet items). Then, differences between pre/post scores were calculated for each writing sample and category.

To determine effects of the instructional intervention on writing performance, several paired t-tests (Cohen, 1988) were conducted to compare the pre-test and post-test categories of scores for

the writing samples. The sample consisted of 37 participants who completed both the pre-test and post-test writing assignment. The paired t-test compares the mean of two dependent groups, meaning the test compares the results of two different writing samples from the same students. The assumptions met for this test are independent paired samples (i.e., two points of measurement), dependent groups (dependency inside each pair), the population's distribution approaches normal distributions, and there is expected difference between any paired samples. Paired t-test calculations were performed using the web-based calculator available on https://www.statskingdom.com/paired-t-test-calculator.html.

Positionality

As white, cisgender women and career educators with more than two decades of experience supporting adolescents with and without disabilities, we approached this study as practitioner-scholars grounded in inclusive, evidence-based literacy instruction. We work within a sociocultural framework that views literacy as equity-oriented. Our experiences as special education and ELA teachers, instructional leaders, and state-level coordinators shape our belief that knowledge is co-constructed through practice and collaboration. As authors of *Writing with Purpose*, we recognize our dual roles in this research and employed procedures to ensure appropriate safeguards. Also aware of research power dynamics and potential biases, we engaged in reflexivity and centered teacher agency throughout the study.

Results

Results of normality tests on pre- and post-test scores for each writing component skill showed reasonably symmetrical distributions, and the sample size was sufficient (greater than 30) to use the paired t-test. The following results are based on p-values of less than 0.001, which means the chance of type 1 error (rejecting a correct hypothesis) is small. See table 1 for pre/post measurement means per writing component skill.

Table 1: Pre/Post Measurement of Writing Component Skills in the Sample

	Pre-Measure Mean	Post-Measure Mean	Mean Difference
Paragraph Writing	54.8	67.1	12.2973
Sentence Writing: Complete	83.6	88.4	4.7703
Sentence Writing: Complicated	49.4	51.4	2.0135
Sentence Writing: Punctuation	58.4	63.2	4.7568
Six Traits: Ideas	3.4	4.1	0.6892
Six Traits: Organization	3.1	3.9	0.7568
Six Traits: Voice	3.1	4.2	1.1081
Six Traits: Word Choice	3.2	3.7	0.4865
Six Traits: Sentence Fluency	2.9	3.8	0.8776
Six Traits: Conventions	3.2	3.8	0.527

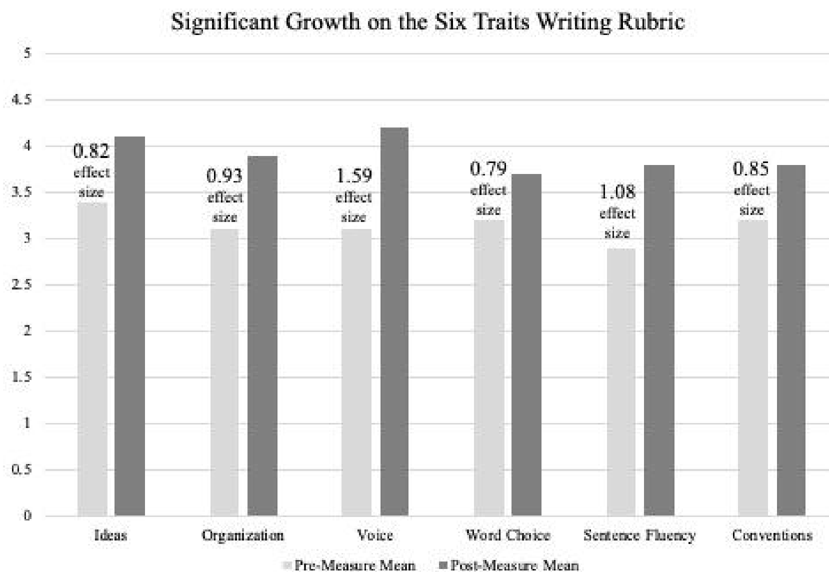
For paragraph structure, as measured with the Paragraph Writing Strategy score sheet, results of the paired-t test indicated that there is a significant medium difference between Group1 ($M = 54.8$,$SD = 19.5$) and Group2 ($M = 67.1$,$SD = 16$), $t(36) = 3.2$, $p = .001$. The magnitude of effect

for paragraph structure was medium (Cohen's d = 0.52). There were non-significant small differences for sentence structure: complete sentences, complicated sentences, and correct punctuation, as measured by the Sentence Writing score sheet (Schumaker & Sheldon, 1999). For use of complete sentences, results of the paired-t test indicated there was a non-significant small difference between Group1 (M = 83.6, SD = 14.5) and Group2 (M = 88.4, SD = 16.1), t(36) = 1.6, $p = .055$. For use of complicated sentences, results indicated there was a non-significant very small difference between Group1 (M = 49.4, SD = 20.2) and Group2 (M = 51.4, SD = 20.1), t(36) = 0.5, $p = .304$. For punctuation usage, results indicated there was a non-significant very small difference between Group1 (M = 58.4, SD = 23.1) and Group2 (M = 63.2, SD = 23.1), t(36) = 0.9, $p = .177$.

As measured by the Six Traits Writing Rubric, there were medium to large statistically significant differences for ideas, organization, voice, word choice, sentence fluency, and conventions. For the ideas trait, results of the paired-t test indicated that there was a significant large difference between Group1 (M = 3.4, SD = 0.9) and Group2 (M = 4.1, SD = 0.6), t(36) = 5, $p < .001$. For the organization trait, results indicated there was a significant large difference between Group1 (M = 3.1, SD = 0.9) and Group2 (M = 3.9, SD = 0.8), t(36) = 5.7, $p < .001$. For the voice trait, results indicated there was a significant large difference between Group1 (M = 3.1, SD = 0.7) and Group2 (M = 4.2, SD = 0.6), t(36) = 9.6, $p < .001$. For the word choice trait, results indicated there was a significant medium difference between Group1 (M = 3.2, SD = 0.8) and Group2 (M = 3.7, SD = 0.6), t(36) = 4.8, $p < .001$. For the sentence fluency trait, results indicated there was a significant large difference between Group1 (M = 2.9, SD = 0.8) and Group2 (M = 3.8, SD = 0.7), t(36) = 6.6, $p < .001$. Lastly, for the conventions trait, results of the paired-t test indicated that there is a significant large difference between Group1 (M = 3.2, SD = 0.8) and Group2 (M = 3.8, SD = 0.7), t(36) = 5.1, $p < .001$.

Using Cohen's d, the following observed effect sizes were large, indicating substantial improvement in scores: ideas (0.82), organization (0.93), voice (1.59), sentence fluency (1.08), and conventions (0.85). The effect size for word choice was medium (0.79). Figure 2 shows a graph of pre/post measurement means for each of the Six Traits and observed effect sizes.

Figure 2: Growth on Six Traits Writing Rubric



Discussion and Implications

Interpretation of Findings

The current study tested whether the *Writing with Purpose* (WWP) routine would improve adolescent writing quality. Medium to large statistically significant positive group differences were found for all Six Traits domains—ideas, organization, voice, word choice, sentence fluency, and conventions—and for paragraph structure. The WWP routine integrates a model-practice-reflect cycle with purpose-driven writing for authentic audiences. Each step may have contributed to gains. Steps P and U (plan purpose, understand audience) likely supported ideas and voice (Block & Strachan, 2019). Steps R and M (review models, ponder model moves) may have influenced word choice and organization by prompting students to emulate expert writing (Jagaiah et al., 2019; Graham et al., 2016). Step O (organize ideas) encouraged use of outlines or graphic organizers (Bulgren et al., 2009), contributing to organization scores. Step E (evaluate impact) supports reflection across traits. These findings align with Behizadeh (2014), who noted adolescents value authentic audiences and choice.

At first glance, results for sentence-level skills appear contradictory: no significant group effect on the Sentence Writing Score Sheet, yet large effects for sentence fluency and conventions on Six Traits. This reflects differences in instrument purpose and measurement. Six Traits assesses unconstrained skills (e.g., rhythm, varied structures, mechanics) using holistic ratings, while the Sentence Writing Score Sheet measures constrained skills objectively (sentence completeness, variety, punctuation). Scorers using Six Traits may be influenced by overall writing quality, whereas the score sheet isolates sentence-level accuracy. Students approached mastery on constrained skills at pre-test, suggesting a ceiling effect (Kalkbrenner, 2021). For example, sentence completeness averaged 83.6% pre and 88.4% post; variety 49.4% to 51.4%; punctuation 58.4% to 63.2%. Growth occurred but was insufficient for statistical significance at the group level, though some individuals showed significant gains.

Theoretical and Instructional Implications

The WWP routine occupies an intersection between sociocultural (Vygotsky, 1978) and cognitivist (Mayer, 1998) approaches to instruction. Some critics of adolescent writing instruction argue that teachers fail to engage students in authentic, motivating tasks (McArthur, 2019). Sociocultural approaches leverage students' experiences and interests, emphasizing writing's utility beyond the classroom (Block and Strachan, 2019). However, managing individualized projects for many students is challenging, especially when teachers lack confidence in teaching writing (Graham et al., 2014).

Conversely, some critics also advocate for fidelity to a "guaranteed and viable curriculum" (e.g., Marzano, 2003), reflecting a cognitivist stance. Curricula developed by companies or individuals often focuses on specific learning goals and targets, placed in a particular order and accompanied by implementation resources like pacing guides to help teachers plan their instruction. While this approach may provide administrators peace of mind that they can place any student in any classroom and (theoretically) have all students enjoy the same learning experiences, there are problems with this approach as well. They rarely account for students' unique motivations, leaving teachers to face the challenge of meeting the demands of multiple student motivations with curricula developed without their specific group of students in mind, as well as varying definitions of words like *guaranteed*, *viable*, and *fidelity*.

The WWP routine can be viewed as a purpose-anchored refinement of process writing, offering a structured yet flexible approach to writing instruction. The routine supports teachers to provide evidence-based writing instruction while leaving space for teacher and student agency to

shape writing tasks and topics. WWP aligns with the IES recommended model-practice-reflect instructional cycle and is broad enough to be used with varied text structures and genres. The co-created WWP guide supports students and teachers to work through a writing process together and provides guidance for teachers who may not have high efficacy for writing instruction. Further, its use of a co-created writing checklist based on models, and use of that checklist with an authentic audience to inform revision capitalize on the use of metacognitive strategies to improve student performance (van der Stel & Veenman, 2014). WWP is grounded in the premise that when educators intentionally change students' writing opportunities by grounding them in a meaningful purpose, students are likely to engage deeply and perform at higher levels.

Limitations

Several limitations related to internal validity and generalizability warrant consideration. The single-arm pre/post design without a comparison group allowed for initial exploration of the WWP routine, but precluded causal inference. Additionally, the limited sample size restricted generalizability and since the WWP routine was implemented only once, it is unclear what effects would be if used across a school year with multiple writing prompts. Relatedly, pre- and post-assessment prompts were teacher-generated to be aligned with course content, and conditions for pre-writing samples were not controlled. Although this approach supports ecological validity, it introduced variability in prompt complexity and relevance that may have influenced results. Finally, students responded to argumentative prompts, so it is unclear whether the WWP routine would produce similar effects across other genres (e.g., narrative, expository).

Conclusion and Future Directions

The WWP routine will be published and available to educators in the near future. Recent federally-funded work to develop an AI-enhanced online adaptive writing program called iSTAR will integrate the WWP routine to support generalizing sentence and paragraph writing strategies. We also look to further study WWP effects in different instructional environments.

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Author Biographies

Suzanne Myers, Ed.D., is an Assistant Research Professor and Co-Director of the Center for Research on Learning at The University of Kansas. She has worked in the education field for more

than 20 years as a high school English teacher, District Curriculum Coordinator, and State Education Agency Coordinator for Academic Standards and Leader of K-12 ELA Standards and Assessment. She is National Board Certified in Adolescent/Young Adult English Language Arts. Her current work and research centers on secondary literacy instruction, digital/connective literacies, adaptive professional learning, and virtual instructional coaching. Her work has been funded by the U.S. Department of Education, the Library of Congress, and various state agencies and educational organizations. She has served as Principal Investigator or Co-Principal Investigator on grants totaling more than $34 Million and helps to lead the CRL's long-term vision and strategic direction. She can be reached at suzannemyers@ku.edu.

Jocelyn Washburn, Ph.D., is an Assistant Research Professor, Co-Director, and Director of Professional Development for the Center for Research on Learning (CRL) at The University of Kansas. She provides leadership to the international network of Strategic Instruction Model (SIM) Professional Developers and helps to lead the CRL's long-term vision and strategic direction. She has been a special education teacher, instructional coach, district literacy coordinator, and regional technical assistance coordinator. Her research focuses on adolescent literacy, evidence-based practices, professional learning models, and educator collaboration. Dr. Washburn is a principal investigator for federally funded research to iteratively design, test, and scale professional learning tools for coaches as well as a technology-based adaptive writing intervention, using artificial intelligence. She has received funding from the U.S. Department of Education, Library of Congress, state departments of education, and local school districts. She can be reached at jwashburn@ku.edu.

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