Writing To Learn Across Content Areas

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WRITING TO LEARN ACROSS CONTENT AREAS

by

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CHAPTER ONE

Introduction

Overview

Mind racing. Eyes darting. Pages flipping. So many ideas in my head bouncing around that it is hard to grab just one. There is nothing to say and too much to say all at the same time. Words come in spurts followed by agonizing pauses. Sentences are reworked, added to, and deleted. This is reflection. This is the writing process. This is learning.

The three elements described above--reflection, writing, and learning--are closely tied together. While people may think of writing in terms of multi-draft multi-page essays assigned with a list of prescribed requirements, it can also be jotting down lists, reflecting on the day, and scribbling questions in the margin. This writing is testing the learning while in the middle of it, the learning that is not firmly implanted in one’s brain. It is not about being right or wrong--it is simply about a short pitstop to check what is and is not being grasped. While a fairly simple tool, it is one underused in many classrooms.

Looking at my own educational journey, as well as the classrooms I visit as an instructional coach, there exists a definite need to bring more writing to learn strategies to the forefront. According to Daniels, Zemelman, & Steineke (2007), writing to learn means “using writing as a tool of thinking” (p. 21). Writing allows thinking to be more visible and concrete.

My own path is one that has wandered at times, but never far from the idea of increasing student voice and empowerment. In order for learning to be student-centered,
students must assess their learning. In the beginning, I was mainly adding aspects of reflection in order to hold students accountable for time spent in student-directed work. In time, however, I began to see the power of more frequent and informal writing in order to solidify their process of learning. Changing educational roles has repeatedly illuminated new perspectives, including increasing the level of writing in all content areas. This leads to the question: *How can teachers across all content areas incorporate write to learn strategies in order to improve student learning?*

**My Reflective Journey**

As a new teacher, I relied heavily on my own experiences as a student. Being the type of student who could handle classroom practices such as study guides, copying notes, and listening to teachers lecture, I found success in most any educational environment. Outside of the classroom the real learning occurred as I explored content in my own way. After becoming a teacher, it was clear that not all students had this same ability, and while my classroom resembled the ones down the hall, from the beginning there was a focus on trying to help students find their voice and give them choice. A better way must exist in which all students could find success.

While I did not articulate this at the time, some assignments started shifting. For example, I ran across a poem called “Smithereens” by Roger McGough (McGough & Monks, 2004, p. 30) during student teaching which described collecting language heard and seen and then using it for something else. This was the basis of having students collect “smithereens” and then write a weekly one page commentary on one. These assignments were graded, but differed from other writing assessments due to their
informal nature and the level of choice granted to students. My students’ personalities emerged along with their ability to communicate clearly; however, it would take over a decade before a real shift occurred in my practice in regards to writing.

On a new stage. Journaling became a regular part of English classes, but students still were not doing much writing other than assigned essays. In my tenth year in education, I undertook a new position that included stage acting classes in my teaching assignment. At first I thought this was going to be an incredible opportunity to work with students serious about theatre. In reality, while there were a few serious actors in the mix, the majority of the class had little to no experience acting. Quickly the realization hit that this needed to look very different from what had been envisioned. It became a place for students to explore their communication and collaboration skills, as well as a time to push their comfort level and learn important lessons about empathy. Skill-based rubrics assessed their skills and content knowledge, but growth became the focus. This is when students first wrote reflections in any of my classes. My identification of their learning did not matter nearly as much as their own.

They always included learning that was not necessarily on the syllabus, and this fueled my focus in the classroom. I gained insight into what worked and what did not.

Learning through the arts. Then, in 2006, the school district developed an arts magnet school-within-a-school program. I started teaching the Arts Infused English 9 class, which was comprised with the same objectives as other ninth grade English classes. Where it differed included the way students demonstrated those objectives along with the use of the arts to teach them. At the onset, a rubric accompanied every type of art form
used for a project. The focus had shifted from course objectives to artistic ability. Enter reflection. A necessary element of the reflection became demonstrating how this project showed their understanding of the unit. More formal planning and proposals at the beginning of the project followed, during which they identified how this project would show what they know.

Initially, I was using metacognitive writing as an end-of-unit project reflection to demonstrate that true learning had occurred. It followed the tenet that a person has not really learned something until they can identify the conceptual change in their thinking (Akturk & Sahin, 2011). More experience with reflection led me to modify its use in my stage acting class. With the students spending the majority of time working on acting projects, a growing need for accountability emerged. I started experimenting with diverse types of learning logs in which they would describe not only how they managed their time, but also topics such as their learning, successes, and challenges. Various formats were tried, some more successful than others. Knowing that this was the direction I needed to go, I researched reflection, and found mostly prompts for service learning reflections which wasn’t the context being sought.

Necessary “soft skills” for academic success were also under consideration; students began reflecting on work habits and attitude, resulting in a goal for improvement. These reflections grounded parent conferences, resulting in some of the most successful conferences I had ever had.

**Advancement Via Individual Determination (AVID).** Seven years ago the high school in my district added an AVID elective class with some sharing of strategies to the
staff as a whole. One element that AVID recommended as essential to teaching and learning was writing, both process writing and writing to learn. This is the first I had heard of writing to learn, even though the idea of it has existed since the 1970s (Bazerman et al., 2005). I slowly started to include more of these techniques, although students were still turning in most of their writing for assessment. I had not fully empowered students to own their learning.

A New Perspective

During the past year, I have been working as an instructional coach. This was the third year the district had incorporated cognitive coaching into the program of professional development. Experiencing coaching as a teacher struck me with the power of reflection—and how that power increases when it is made concrete, either aloud or on paper. Even as an internal processing introvert, I experienced the power of having to put thoughts into words.

This method of observation centers on empowering the person being coached, as opposed to an evaluation of a teacher’s strengths and weaknesses. The teacher drives the process, while the coach uses paraphrasing and questioning in order to mediate the thinking of the teacher. It is much more difficult to figure it out for oneself, but it is so much more meaningful.

Annually, I write a reflective statement on my individual goal, Personal Learning Community work, and/or the observation process. This is a time to deepen my thinking, putting thoughts down in writing to clarify the learning that has occurred and document the thinking behind it. In Zinssler’s (1989) Writing to Learn, he described how writing
clarifies thoughts. “It compels us by the repeated effort of language to go after those thoughts and to organize them and present them clearly” (Zinsser, 1989, p. 49). Thinking about one’s thinking leads to the expression of those thoughts.

While my focus as an instructional coach is to help teachers reflect on their practice, it has also driven me to think more about my teaching practices. I immediately started a document titled, “Things to remember when I go back to teaching.” One area I have documented is metacognitive writing. The needed frequency and variety of writing to learn strategies has been missing from my classroom. In addition, most writing students have completed in my classes has been assessed.

With a move towards AVID schoolwide in my district, I began tracking the use of writing, inquiry, collaboration, organization, and reading (WICOR) in the secondary classes that I observed. What I learned is that over half of the classes had little to no writing during the lesson, and of those who did, it was mostly process writing that would result in a graded assignment. Occasionally quick writes on a topic related to the content would be used, but I observed very little reflection. This led me to more frequent conversations with teachers, building administration, and district leadership about the need for writing instruction in our classrooms and how I might provide professional development in this area. When offered the opportunity to receive more AVID training, I chose their new strand, Learning Through Writing.

**Educating Myself and Others**

This journey has spanned 26 years in education. While I have always been driven by my personal learning, this path has definitely been inspired by change. Each new
district or building or teaching assignment naturally renewed my reflective energy, and with past experiences in mind, I would approach the future as another question to be answered. Each answer led to more questions. This is the nature of learning. During this sabbatical from the classroom, my perspective has really shifted as I left my solitary work behind and have found myself in the midst of many educational contexts. I am drawn to this particular area that affects classrooms of all ages and all content areas.

My plan is to create professional development in my school district that explains the benefits of writing to learn across content areas and provides teachers with specific strategies, along with supporting their practice in using these strategies. This leads to the question: *How can teachers across all content areas incorporate write to learn strategies in order to improve student learning?*

Chapter two will survey the literature exploring writing to learn, including the discipline-neutral and discipline-specific approaches, the psychological and social processes involved in writing and learning, as well as research surrounding specific strategies. Chapter three will describe the project in more detail. Chapter four will come full circle with a reflection of my learning.
CHAPTER TWO

Literature Review

Introduction

"Writing is how we think our way into a subject and make it our own. Writing enables us to find out what we know--and what we don't know--about whatever we're trying to learn” (Zinsser, 1988, p. 16). This summarizes the most basic aspects of writing to learn, that it naturally engages the writer in the cognitive processes that lead to greater learning. Yet, many secondary teachers see writing as the domain of English teachers alone, when the reality is that writing can and should be incorporated into all disciplines.

This chapter will first trace the development of the practice in its more generalized approach, Writing Across the Curriculum, and then its more content area focused, Writing in the Disciplines, illuminating the historical path leading to more classrooms using this approach in order to bolster learning. Second, the contributions of psychological processes of writing on learning content material will be explored. This will include literature on spontaneous processes, cognitive processes, and metacognition. The research will show how writing uses processes in learning and makes them more intentional, providing the rationale for pursuing the question, How can teachers across all content areas incorporate write to learn strategies in order to improve student learning?

Learning is a social construct (“Sociocultural Theory,” 2009); therefore, the literature surrounding writing and sociocultural theory will next be explained. Finally, studies related to specific strategies and implications for teaching writing to learn will be
discussed. This will include the specific strategies and practices that have resulted in the greatest success.

The Development of Writing to Learn

Writing has been used since ancient times as a way to communicate content, and schools have long used it to have students demonstrate learning, but as Meiers & Knight (2007) stated, writing to learn is different than either of these types of writing. According to Daniels, Zemelman, & Steineke (2007), writing to learn means “using writing as a tool of thinking” (p. 21). Writing to learn is one aspect of writing across the curriculum.

Writing Across the Curriculum (WAC). Bazerman et al. (2005) defined WAC as "the pedagogical and curricular attention to writing occurring in university subject matter classes other than those offered by composition or writing programs" (p.9). In the elementary and secondary schools, Bazerman et al (2005) have found it more often referred to as writing across content areas because the content or subject areas are not as tied to academic disciplines as in higher education.

In the early 1930s, Alvin C. Eurich, a professor at the University of Minnesota, called for more writing across the curriculum after his study showed that not enough gains in writing were made by students enrolled in the freshman composition course (Bazerman et al., 2005). His concern centered on the quality of the writing, rather than the learning, that was taking place, but the movement definitely evolved with the work of James Britton in the 1970s. Britton was one of the early researchers to assert that writing naturally leads to learning, a view held and promoted by writing teachers at the time. He maintained that thoughts were shaped at the point of utterance, and that simply
expressing an idea made it clearer (Bazerman et al., 2005; Klein & Boscolo, 2016; Prain & Hand, 2016). Britton (1982) therefore valued expressive writing, seeing it as “language close to the self; language that is not called upon to go very far away from the speaker” (p. 96). His studies in the 1970s called for more expressive writing in secondary schools, although not because he had proven that expressive writing affected learning. He based his claim on the lack of this type of writing, and yet his study and recommendation were cited and adopted by the WAC movement (Bazerman et al., 2005; Klein & Boscolo, 2016).

Emig (1977), while a contemporary of Britton’s, did indicate a connection between writing and cognition. She viewed writing as containing all three ways of learning described by Jerome Bruner. Emig (1977) depicted writing through this lens as such: a writer transfers experience into language and then creates icons (words) with their hands. She contended that people learn by doing, by making images, and by attributing meaning to these symbols. Emig (1977) also focused on the importance of writing for learning based on the fact that it can so easily be reviewed.

According to Klein & Boscolo (2016) the focus changed in the 1980s to cognitive models. These models maintained that it is not writing alone that causes learning; rather, the strategies a writer employs increases learning. There is a difference between writing what you know and transforming what you know. They also acknowledged that different types of writing have different effects on learning (Bazerman et al., 2005; Klein & Boscolo, 2016; Prain & Hand, 2016).
This discipline-neutral approach incorporated basic strategies and prompts that do not have to change from one academic content area to the next (Klein & Boscolo, 2016). Writing is simply used in a general way to slow down the process and engage learners. Joan Countryman, the head of the mathematics department at Germantown Friends School in Philadelphia, would often have students describe in writing a math problem, their approach, and what they concluded. She described to Zinsser (1988) that “writing is a way to explore a question and gain control over it...But it also engages the imagination, the intellect and the emotions, and these are powerful aids to learning” (pp. 154-155).

**Writing in the Discipline (WID).** While there may be a misconception that WAC and WID are competing movements, in reality, writing in the discipline is more of a subset of writing in the curriculum. WID was seen by Bazerman et al (2005) as "both a research movement to understand what writing actually occurs in the different disciplinary areas and a curricular reform movement to offer disciplinary related writing instruction but within a program designed for that purpose" (Bazerman et al., 2005, pp 9-10). As WAC moved into more cognitive processes, argumentative writing became a type of writing turned to more often. The early development of WID arose from the awareness that disciplines vary in the way that they use evidence and argumentation (Klein & Boscolo, 2016; Prain & Hand, 2016). This moved into a closer examination of the writing within disciplines. Using professional models as guides, students moved beyond just learning content into the realm of learning how to think in the discipline and write like its professionals (Galbraith, 2015).
This resulted in disciplines having specific models for writing, such as the Science Writing Heuristic which focuses on inquiry “mediated largely by writing” (Klein & Boscolo, 2016, p. 324). In history courses, MacArthur (2014) has defined two significant modes of thinking, seeing an event in history from the perspective of the time and culture of the event rather than from today’s context and then critically examining the evidence and source as a result of understanding that historical accounts are arguments for a particular interpretation. These models showed how two different disciplines use writing more geared towards the work of professionals in the field.

Overall, writing across the curriculum is more of an all-encompassing umbrella for any type of writing beyond the general composition class. It includes both writing to learn and writing in the discipline (Bazerman et al., 2005). This writing movement began with hunches and personal beliefs, but has grown into a widely studied area of research in all ages and disciplines, mainly due to the identification of specific psychological processes used in both writing and learning (Klein & Boscolo, 2016; Prain & Hand, 2016).

Psychological Processes

When writing first began to garner attention as a tool of learning, it was relying on a spontaneous psychological process (Britton, 1982). Britton felt that the power in writing was in how freely it was allowed to happen. “Writing can in fact be learning in the sense of discovery. But...we must give more credit than we often do to the process of shaping at the point of utterance...” (Britton, 1982, p. 110). While research has put some validity in this method in certain situations, such as with students who are not strong self-monitors,
overall studies have shown much more benefit from the use of cognitive prompts (Galbraith, 2015; Klein, 2015; Prain & Hand, 2016).

**Cognitive Processes.** Cognition includes the "skills to encode and recall information: rehearsal, elaboration, organization, and comprehension-monitoring learning strategies ...and the processes of problem solving and critical thinking" (Reynolds, Thaiss, Katkin, & Thompson, 2012, p. 22). Writing itself does naturally include many of these skills, but students benefit more when they are explicitly taught and then practiced. Strategy instruction increases the benefits of writing by breaking down what proficient writers do in order to teach it to less proficient writers. This has resulted in research demonstrating that writing to learn is effective with students regardless of their skill as writers (Kieft, Rijlaarsdam, & van den Bergh, 2006; Klein, 2015; MacArthur, 2014; Ray, Graham, Houston, & Harris, 2016). One model for teaching strategies is self-regulated strategy development (SRSD). SRSD was first used to teach students how to write, but is increasingly used for teaching the types of strategies that can be taught to aid learning (Klein & Boscolo, 2016).

Graham & Hebert (2011) have shown writing to improve reading comprehension. They contended that this occurs because the student has to choose information from the reading to write about and find relationships in the text. An integral aspect of this requires that students do more than copy passages; rather, they need to be making meaning by composing in their own words. By doing this they are transforming the language of the text which results in more personal involvement. Students then can go back to their writing to further reflect on it (Graham & Hebert, 2011).
Metacognition. While metacognition is commonly defined as “thinking about thinking” (Moulin, 2006, para. 1), Akturk & Sahin (2011) produced the following definition, “individuals having information about their cognitive structure and being able to organize this structure” (Akturk & Sahin, 2011, p. 3732). There are two aspects, both being aware of one’s thinking and being able to do something about it. Cognition involves learning something, and metacognition helps one do so more effectively. Just as with cognition, it has been found that specific metacognitive prompts have a much more significant effect on learning, with students who have poor metacognitive skills performing worse than those with strong skills (Klein, 2015; Klein & Boscolo, 2016; Tanner, 2012). Effective metacognition happens throughout learning: before (when a writer plans), during (when a writer monitors their writing), and after (when a writer evaluates their writing). Using pre-assessments aids students in thinking about how they can go about learning the content, while identifying confusions along the way can help them plan independent learning or identify when they need support. While reflection strengthens thoughts, it also activates emotions, leading to a stronger personal connection to the content. When students have been taught metacognitive strategies and then start using them on their own, they are truly on their way to becoming lifelong learners (Akturk & Sahin, 2011; Klein & Boscolo, 2016; Tanner, 2012).

Psychological processes—spontaneous, cognitive, and metacognitive—explain why writing aids learning. It requires many of the same processes as any type of learning (Kieft, Rijlaarsdam, & van den Bergh, 2006; Klein, 2015; MacArthur, 2014; Ray, Graham, Houston, & Harris, 2016). If these strategies are taught, students have a manner
in which to approach their current learning as well as topics they may be faced with throughout their lives. Writing takes these processes that might be more contained within thoughts, and makes them visible. But learning does not just take place within a solitary person; the human brain is wired to socially make meaning ("Sociocultural Theory," 2009).

**Social Processes**

Social processes are also involved with writing, which uses sociocultural theory as its basis. Sociocultural theory is used “to explain how individual mental functioning is related to cultural, institutional, and historical context; hence, the focus of the sociocultural perspective is on the roles that participation in social interactions and culturally organized activities play in influencing psychological development” ("Sociocultural Theory," 2009, p. 851). Sociocultural theory helps to explain how and why thinking is affected by society. The social element of writing contributes to its effect on learning.

With school itself being a social setting, any writing done in school lends itself to the sociocultural theory automatically, but writing involves more social contexts than just sitting in a classroom with others. Another more specific context of writing is the aspect of audience. There is always an audience, and with forethought from the teacher, authentic audiences can be garnered for writers. Writers connect with readers through text, establishing a social relationship as they create an identity with whom they will share their writing. They will consider how to gain the audience’s attention and explain aspects so that another will understand (Bazerman, 2015; Beach, Newell, &
VanDerHeide, 2015). In addition to more contextual social involvement, intentional collaboration can also be implemented.

Collaboration can occur in many ways, from quick sharing of ideas to peer review of an individual's writing to two or more students composing a text. Collaborative writing can be seen as “a specific learning task in which two or more learners participate equally in constructing and writing a text” (Nykopp, Marttunen, & Laurinen, 2014, p. 277). Collaborative writing naturally informs collaborative learning. Students interact with each other in many ways, such as helping each other with writing skills or a deeper understanding of the content. They also solve problems together and learn more about how others think and work. Specific strategies such as collaborative completion can aid in this problem solving. In this strategy, one writer begins a sentence or an idea and a second completes it (Nykopp, Marttunen, & Laurinen, 2014).

Problem solving potentially leads students to cognitive conflict, a time when they are made aware of something that is in conflict to what they have thought to be true. In collaborative writing, if cognitive conflict is encouraged, then thinking and learning will also be strengthened. Students are aided in seeing different perspectives and in turn either defending or changing their own thoughts (Beach, Newell, & VanDerHeide, 2015; Nykopp, Marttunen, & Laurinen, 2014). This type of reflection is one way in which metacognition is also strengthened. It is also emphasized during the planning phase, when determining purpose and organizing thoughts is even more important so that each person involved in the writing can use it as a guide (Nykopp, Marttunen, & Laurinen, 2014).
The social aspect of learning is an integral part of writing. There are multiple ways in which writing can be influenced by social processes. Taking place within a school already establishes a social context for writing; the presence of an audience for the writing additionally contributes to it (Bazerman, 2015; Beach, Newell, & VanDerHeide, 2015). More deliberate steps can be taken to increase the social quality through collaboration (Nykopp, Marttunen, & Laurinen, 2014). These collaborations can occur at many times throughout the writing process whether the student is producing individual or collaborative work. Intentionality is an integral part of using strategies to increase learning through writing.

**Writing to Learn Strategies.**

Research on writing to learn focuses on specific strategies used and their effectiveness. Studies have included classes that used writing to learn with control classes which did not (Daniels, Zemelman, & Steineke, 2007; Peters, 2011). Analysis of this work has determined that using writing engages students with the content and helps them understand more deeply, ask questions, make connections, and apply what they have learned. By the end of the course, the class that included writing to learn was more successful and retained more content. Zinsser (1988) describes a math teacher who drew a triangle on the board and had students write how they might find out the size of the three angles once she gives them more information. When asked how it helps to write before solving the problem with numbers, she described how learners with aptitude will figure it out quickly and answer. They would not think as much about what they were
doing, and the other students would not think at all. This practice has all students thinking about how to solve a problem.

**General guidelines and implications.** While studies show there might be a small amount of inherent benefit from writing of any type, the effect it can have on student learning increases with the intentional teaching of strategies (Galbraith, 2015; Klein, 2015; Prain & Hand, 2016). In addition to teaching students strategies, they should also be taught how and why they aid learning; the results are further strengthened when writing is frequent and brief (Graham & Hebert, 2011; Klein, Arcon, & Baker, 2015). The use of specific cognitive and metacognitive prompts has also been supported by research, as they lend purpose to learning, which increases interest and critical thinking. These prompts are also most effective when modeled for students (Galbraith, 2015; Klein, 2015; Klein, Arcon, & Baker, 2015; Schmoker, 2018; Tanner, 2012).

Surveys have found that the most common types of writing, such as taking notes, completing worksheets, and answering questions at the end of the chapter, do not include much composing (Daniels, Zemelman, & Steineke, 2007; Ray, Graham, Houston, & Harris, 2016). Writing such as this is not as effective because students are not making the information their own; rather, it is merely the passive transcription of other people’s words (Daniels, Zemelman, & Steineke, 2007; Ray, Graham, Houston, & Harris, 2016).

Marzano (2012) outlined a more active approach to utilizing writing that will lead to deeper understanding.

1) **Record:** after being exposed to content, students record what they understand
with a focus on summarizing. This is done in their own words with little attention
given to how it is written.

2) Compare: students share in pairs to see if they have picked out similar details.
The teacher circulates in order to answer questions and look for any broad
confusions that students are encountering.

3) Revise: students revise their summary, adding and/or deleting information
based on what they learned by comparing with a peer along with any further
instruction by the teacher. More attention is given to how it is written at this point.
The teacher repeats these three steps multiple times throughout a topic/unit.

4) Combine: students revisit all of the record-compare-revise writings to make a
generalization that they then support in writing, using evidence from the previous
note-taking.

5) Review: before an end of unit or end of course assessment, students review all
writings.

This is a process that can be used in content areas for a variety of purposes.

Various models have been developed to increase the efficacy of writing. The
self-regulated strategy development (SRSD) model provides a structure to teach students
to be more self-regulated through the teaching of specific strategies (Santangelo, Harris,
& Graham, 2008). It is comprised of six stages: developing background knowledge if
there are missing prerequisite skills, discussing the purpose and benefit of the strategy
with students, providing models followed by students setting goals, helping students
memorize it so that it becomes a strategy they can return to whenever needed, supporting
it through scaffolded collaborative experiences, and ultimately students’ independent use of the strategy (Santangelo, Harris, & Graham, 2008).

**General types of writing included.** According to Daniels, Zemelman, & Steineke (2007) the types of writing that can be considered generally fit into three categories: short in-class writing, ongoing and/or more developed in-class writing, and extended, public writing. Short in-class writings are largely diagnostic. They are meant to have the students grapple with ideas and in turn allow the teacher to gauge their level of understanding quickly (Daniels, Zemelman, & Steineke, 2007). This includes activities such as taking a writing break, exit and entrance slips, brainstorming, clustering, self-assessments, and explanations of the part that is most confusing (Daniels, Zemelman, & Steineke, 2007; Meiers & Knight, 2007; Tanner, 2012).

Daniels, Zemelman, & Steineke (2007) asserted that while the short in-class writings are meant to be done in the moment, sometimes a sequence of short writings are used. These ongoing assignments, including journals, learning logs, written conversations, carousel brainstorming, and KWL, are more developed and/or trace learning over a timeframe (Daniels, Zemelman, & Steineke, 2007; Meiers & Knight, 2007). Daniels, Zemelman, & Steineke (2007) also recommended teacher-student correspondence. They suggested allotting 10-15 minutes at least once a month to have everyone write to the teacher addressing a prompt, with the opportunity to share other aspects of the class or their life. Most importantly, the teacher responds to each student and applies what they’ve learned in class so that students know that what they write matters. The “benefits will be higher class morale, deeper understanding of the material,
better-targeted instruction, and a more personal, meaningful relationship with your
students” (Daniels, Zemelman, & Steineke, 2007, p. 106).

Tanner (2012) described in more detail the option of reflective writing after
summative assessments such as tests. Using metacognitive prompts, students write about
their level of success, what worked as they prepared, and their plan for the future. During
the next unit, students revisit their reflection before the test and then assess how well their
advice to themselves worked.

Some of the first two types of writing to learn could be later developed into
assessments of learning. When including writing of this nature, Daniels, Zemelman, &
Steineke (2007) described it as substantial, planned, authoritative, composed using a
process, edited, geared towards an audience, and graded. Factors that improved student
performance with this type of writing include having choice, time in class to compose,
models of good writing, and feedback during the process.

Assessment. Ray, Graham, Houston, & Harris (2016) detailed a number of
reasons that teachers might refrain from writing in their classes, including a lack of
training or the fear that it will take time away from other content. An additional factor is
the apprehension surrounding the assessment of writing. Schmoker (2018) argued that
more writing does not have to mean more grading. As Strong (2003) put it, “If the
amount kids write is limited by what teachers have time to grade, there is no way they
will write enough to learn curriculum content” (p. 5). Most writing to learn needs no
grade at all beyond completion.
Strong (2003) also contended that there is a hidden curriculum involving assumptions that students have ‘learned’ about writing that is inhibiting. While some of these conjectures are more general, such as the goal of writing is to convey to teachers what they already know or keep students occupied, many of them revolve around grading issues. This commences with the idea that one writes in school to earn a grade. Strong (2003) explained how it proceeds with assumptions regarding the manner in which to receive a proficient score: guessing what the teacher wants, padding the paper to make the required limit, and working hard on it. When summative writing is a part of a class, more attention needs to be paid to the purpose and audience of the writing, as well as clear rubrics and models for what constitutes “good” writing (Strong, 2003).

**Benefits for teaching.** While the primary purpose of writing to learn is to use it as a tool for student learning, teachers can also gain from it. In Peters’ (2011) study of teachers who taught one class using write to learn strategies and one class not using them, teachers identified these benefits in their reflections. They were able to make adjustments along the way based on what they learned from their students’ short writing instead of waiting until the end of a unit.

When Zinsser (1988) worked with professors who were adding writing intensive courses, he talked with Lawrence W. Potts, a professor of chemistry, about the difference between student work that includes writing as opposed to just numerical answers. “The process also enables me to see how their mind worked....I can comment on it, and they can make use of my comment when they go back to the experiment...revising helps the student rethink” (p. 46).
There is much to consider when applying write to learn strategies, but being intentional with their use is the overall premise. Specific prompts are more effective than freewriting, and it is important to teach students how and why the strategies will aid them in their learning (Galbraith, 2015; Klein, 2015; Prain & Hand, 2016). Models such as the self-regulated strategy development model can be used to teach the strategies to students for more impact (Santangelo, Harris, & Graham, 2008). Writing to learn can take many forms, from very quick writing in class to developed multi-draft assessments (Daniels, Zemelman, & Steineke, 2007). It is best to have students write often and with purpose, and grading should be minimal with the shorter in-class pieces, and clearly defined with extended public ones (Schmoker, 2018; Strong, 2003). While student learning is at the focus of writing to learn, teachers also gain valuable information that can guide instruction and interventions (Peters, 2011).

**Rationale of Research**

Overall, the research demonstrates that there are benefits to using writing in order to strengthen student learning. When addressing the question, *How can teachers across all content areas incorporate write to learn strategies in order to improve student learning?*, it will be important to remember many of the same points that teachers are guided by when incorporating writing effectively. Success is greatest when teaching a strategy includes explicit instruction in how and why it is beneficial. With more understanding of why this works, teachers will likely be more apt to incorporate these strategies. They will also have an understanding of why they will help students, which will better prepare them to share this in their own classrooms. It is not enough to write
anything; more intentionality needs to be included. As Ray, Graham, Houston, & Harris (2016) discussed, much of the writing taking place in classrooms is not causing students to think deeply about the content. If teachers are not attaining the training needed to successfully implement writing for learning, they are not teaching the strategies involved, which is where the real benefits are seen.

Summary

Chapter two contains a review of the relevant literature to help answer the question *How can teachers across all content areas incorporate write to learn strategies in order to improve student learning?* The development of writing to learn was explored, from the early discipline-neutral practice of writing across the curriculum to newer emphasis on writing in the disciplines (Bazerman et al., 2005). Research demonstrated why writing affects learning and requires first establishing the psychological processes of cognition and metacognition that can be tapped into when writing (Kieft, Rijlaarsdam, & van den Bergh, 2006; Klein, 2015; MacArthur, 2014; Ray, Graham, Houston, & Harris, 2016). This was followed by the ways that writing is a social process, which in turn further aids learning (Bazerman, 2015; Beach, Newell, & VanDerHeide, 2015). Finally, research related to general implications and types of writing found to be most effective was included.

Chapter three will discuss the professional development designed to provide teachers with the information they need to successfully incorporate writing into their classrooms as a tool for learning. As part of the project description research will be provided on effective adult learning which guides the framework for the training.
CHAPTER THREE

PROJECT DESCRIPTION

In order to answer the question, *How can teachers across all content areas incorporate write to learn strategies in order to improve student learning?*, professional development for teachers will be prepared. This chapter will describe the training, setting, audience, and overall timeline. It will also describe the research-based framework for adult learning used to design it. In order to make sure the training is examined for effectiveness, a method for assessing the professional development will also be explained.

Project Description

Training has been prepared for one hour long session on writing to learn across content areas. The school district in which this training will occur has an established program of offerings for teachers that provide professional development and lane change hours. The hour will comprise of the research behind writing as a tool for learning and an orientation of the resources available to try in the teachers’ classrooms. There will also be the explanation and possible arrangement of support for teachers through the assistance of instructional coaches to further implement these strategies in the classroom.

The resources available to teachers include two modules of strategies. A PDF document organizes all of the resources through links. There is a video to orientate teachers to the resource and buttons that link to separate hyperdocs. The hyperdocs use the 5E Instructional Model (Duran & Duran, 2004) to lead teachers through a self-paced learning experience. The model begins with engagement, capturing attention to the
content and setting the stage for the learning. Next is exploration where various resources have been curated to allow a teacher to decide what information will be most beneficial to them. After learning about a strategy, the teacher will move on to the explanation stage. If this was in a classroom, there would be interaction at this point, so a link to a web-based sticky note service has been added for teachers to share their understanding. The next stage, elaboration, builds on this understanding by asking teachers to brainstorm ways to utilize the strategy in the classroom. This time a link to Flipgrid takes them to a board to record their ideas and hear about the ideas of others. The model concludes with evaluation, linking the teacher to a Google form that asks for reflection and provides an opportunity for collaboration and/or coaching.

**Audience and Setting**

The training will occur in a school district within a rural community with around 5800 students coming from three towns. There is one traditional high school, one alternative high school, one middle school, and six elementary schools. The ethnic makeup is predominantly white/caucasian (90%). There are approximately 330 licensed teachers in the district, with a majority having their masters and teaching over ten years (Minnesota Report Card, 2017). The participants will be teachers who voluntarily sign-up for the class through an established procedure offering professional development for district staff. The classes are provided free of charge and can be applied to lane change and continuing education hours. It will be offered in the afternoon, after the school day has ended.
Timeline

After the project completion during the fall 2018 term, the registration information for the course will be sent to teachers in the district via email. The initial training will be offered in the winter of 2019. Opportunities for follow-up and coaching will occur throughout the winter and spring of 2019.

Assessment of Training

Assessment of the training will occur in three manners: pre-assessment, formative assessment, and summative assessment. Once it has been determined who will be taking the class, a brief survey will be sent to each of the participants in order to determine their level of knowledge and experience relating to writing to learn as well as their content area and grade level. This will allow the training to be tailored more effectively to those in attendance.

During the training, informal observation will be used as formative assessment to determine the level of knowledge and skill with the new material. At the end of the first session, participants will complete a survey that will gauge their overall reaction to and understanding of the training. This will enable the opportunity to reach out to those teachers who feel they may need extra support. Further opportunities for follow-up and coaching will be offered to participants from the instructor or by communicating with the instructional coach working with the teacher.

Research Rationale

Research in both adult learning and professional development assessment helped to inform the project design. While the general theories of andragogy are at the basis of
the training framework, research about effective assessment contributed more specific characteristics of well-designed research-based adult learning.

**Andragogy.** The basic tenets of andragogy center around the unique qualities of a learner who is an adult, although many of these same tenets are also effective with children. Adults need to understand why they need to learn something, as well as feeling in control of the learning. Because of this, there should be a focus on providing support for self-directed learning. While all learners have prior experiences and knowledge that affect their learning experience, adults tend to have had experiences that should be tapped into as part of the learning experience. Intrinsic motivation is considered better than extrinsic motivation; in addition, adults tend to be more motivated to learn something that will help to solve a problem they encounter (Knowles, Holton III, & Swanson, 2005).

This is quite succinctly summarized by Knowles (1992) when he stated that “the process should start with and build on the backgrounds, needs, interests, problems, and concerns of the participants” (p.11). He explained how this framework for adult learning can be attained, even when the setting is a large venue with just one session. In situations such as this, the quality of the learning is based on the level of interaction that the learners experience. The first type of interaction involves what is happening on the platform or in the front of the room. At a minimum a visual aid should be utilized, but the inclusion of another presenter would be more beneficial (Knowles, 1992).

A second type of interaction that Knowles (1992) described is between the platform and the audience. This can be achieved through opportunities for the participants to ask questions and share experiences or finding ways to involve them more
directly on the platform itself. The third type of interaction delineated is amongst members of the audience, which can occur throughout the presentation. At the beginning it can be beneficial to have small groups propose questions and concerns that are shared with the whole group. During and after the presentation, audience members can interact to compile additional questions and clarifications, as well as ways to apply the learning. These basic principles of andragogy are important to remember in the design of professional development with teachers (Knowles, 1992).

**Purposes of evaluation.** Along with the andragogy framework of adult learning, there has been much research on the evaluation of adult learning experiences. Guskey (2005) described three purposes of evaluation that illuminated the various ways that assessment of training should be viewed. He first examined evaluation that occurs before training, which is used for planning purposes, giving those developing the training a clear objective, procedure, and manner of assessing the learning. It also determines the needs and backgrounds of the participants. Another purpose described is formative assessment during the training itself in order to determine whether or not the objectives are being met and identify needed adjustments. This can be done through observation, check-ins, or a survey much like the final one. The final purpose, summative, occurs after the program and allows developers the opportunity to examine the overall worth of the training, analyzing the results (Guskey, 2005).

**Levels of evaluation.** In addition to the purposes of evaluation, the levels should also be examined. According to Guskey (2005), the most common tier revolved around the reactions of the participants. This type of information is easy to gather through a
questionnaire and includes how they felt about the training, including its worth, clarity, and the presenter’s abilities. While it seems surface level in the areas addressed, it is still valuable information to garner and can be used to improve delivery and design.

Guskey (2005) described four additional levels of evaluation that should be addressed.

- Level 2 includes the participants’ learning: knowledge, skills, and possibly attitudes. Success indicators would need to be determined before the delivery of the program. If this is familiar information to some participants, their level of knowledge needs to be determined before the training. This type of evaluation can be collected via written assessments, demonstrations, simulations, portfolios, and reflections.

- Level 3 evaluation examines the organizational support. Knowledge of policies and available resources are considered to determine the feasibility of implementation of the learning. Evaluation of this nature can occur through questionnaires, interviews, and school records.

- Level 4 evaluation examines the participants’ use of the new knowledge and skills. Participants need to have time to discover ways to apply the learning to their practice, and because it is a process, it is recommended to gather this information multiple times. Questionnaires, interviews, reflections, and observations are ways in which this evaluation might occur.
● Level 5 evaluation pertains to the effect on student learning outcomes. All training should result in the improvement of student learning and achievement. While it can be difficult to attribute student outcomes to one variable, assessments, observations, questionnaires or interviews can be used to correlate the student achievement with the specific training. Guskey (2005) concluded by recommending that backward planning be used to assure that training is effective and includes all levels of evaluation instead of concluding with level one. Those developing training should first identify how student learning will be impacted, followed by identifying research-based practices that will lead to student outcomes. Then it is necessary to determine what organizational support is needed. Next, the knowledge and skills that participants will need to implement practices is identified, which leads to deciding on the types of experiences they will need to have in order to gain the knowledge and skills (Guskey, 2005).

**Tool for assessment.** A specific model will be used in the development of the training as well its assessment. The Observation Checklist for High Quality Professional Development Training (Noonan, Gaumer Erickson, Brussow, & Langham, 2015) was developed to be used by an observer to determine the quality of a training, as well as a tool for a trainer to use during development (See Appendix A for the full copy of the form). This form was created using known research on adult learning and assessment. It was based most strongly on Knowles’ andragogy, Showers’ research about the use of simulations and feedback, Guskey’s findings on the need for objectives and assessment, and the research synthesis of Trivette et al showing the highest impact coming from
real-life application, reflection, pre-class work, and assessment (Gaumer Erickson, Noonan, Brussow, & Supon Carter, 2017). The research was synthesized into 22 characteristics in six domains, including preparation of the training, introduction of the training to the participants, the demonstration of knowledge and skills, engagement of the participants, reflection and evaluation of the learning, and the presence of opportunities to master the content after the training (Noonan, Gaumer Erickson, Brussow, & Langham, 2015). This tool will provide a guideline for the development of the writing to learn training.

**Summary**

In Chapter 3 a description of the project completed has been provided. This includes a description of the audience, setting, and timeline for completion. The training will be strongly influenced by Knowles’ work with andragogy and Guskey’s research on the assessment of professional development. Their work, along with the Observation Checklist for High Quality Professional Development Training will provide a guideline for classes created for staff in the district.

Chapter 4 reflects on the entire process of researching and creating this capstone project. It includes the learning gained, from both the research analyzed as well as the experiences of creating training to share with teachers, and concludes with a discussion of future implications of this project.
CHAPTER FOUR

CONCLUSION

Introduction

Having come full circle with the question, *How can teachers across all content areas incorporate write to learn strategies in order to improve student learning?*, my hope is that I impart at least a fraction of the learning I have encountered to others. In reflection I have determined that the most significant aspect that this project has led me to revolves around my personal learning. This chapter summarizes what I have discovered about fear and failure in relation to the role I see myself in, the tendency for people to overestimate their abilities, and the undeniable reality that doing something for the first time will be difficult. While these gleanings are more personal in nature, they inform the work teachers do with writing.

Next, the literature review will be revisited, focusing on the sources that provided the most practical applications, as well as the new learning that has stuck with me the most: sociocultural theory and limitations on professional development. The importance of social learning is not new, but I had not thought of it being inherently a part of writing, and the research on professional development illuminated areas that could have a real impact on its effectiveness. The chapter will then cover the limitations of the project and future implications.

Learning

I wrote this book to try to ease two fears that American education seems to inflict on all of us in some form. One is the fear of writing. Most people have to do some
kind of writing just to get through the day--a memo, a report, a letter--and would almost rather die than do it. The other is the fear of subjects we don’t think we have an aptitude for...I now think that these fears are largely unnecessary burdens to lug through life. (Zinsser, 1988, p.vii)

Zinsser (1988) began his preface to *Writing to Learn* with these lines. As one of the first books I picked up when embarking on the literature review, it spoke to me. It tapped into some of my own fears, as well as the fears I observe in teachers and students on a daily basis. This was not the focus of my literature review, and honestly, it had been submerged underneath all of this work until now. During reflection, pulling out the sources in Chapter 2, I remembered this beginning. A rush of ideas flooded my mind including another book, Newkirk’s *Embarrassment and the Emotional Underlife of Learning* (2017). Newkirk (2017) synthesized personal experience, observations, and research to examine the effect that embarrassment has on learning. Rationally, failure should be a welcome part of learning, as Dweck (2008) has found in her research of growth and fixed mindset. Newkirk (2017), however, commented: “We can say that failure is healthy--just as we can say that pain is often necessary for health--but we instinctively want to avoid both” (p. 6). He contends that there are three principles that interfere with the knowledge that it is productive to fail: the performative principle, the vanity principle, and the awkwardness principle. These principles relate to my learning over the course of completing this capstone.

**The performative principle.** Newkirk (2017) defined the performative principle in this way: “In all social encounters we play roles that we desire to perform
competently. Embarrassment typically involves this discrediting information that undermines our performances” (p. 8). The performative principle was definitely at play in my learning. First of all, the constant juggling of roles played everyday and adding an additional one, graduate student, was an adjustment, and there was doubt whether I could “do it all.” Was this a role that could be added to my repertoire, or was I not cut out for it?

I claim to always be learning, but when challenged to dig deep, it was difficult. In the past, learning meant exploring topics and applying it in tasks that many would not see. This experience has truly been onstage, which is a challenging addition. Remembering the discord felt juggling many roles will inform future work with teachers and students.

The vanity principle. “Humans habitually tend to overestimate their capacities--which leads to dissonance and discomfort when we confront situations that fail to support this self-image” (Newkirk, 2017, p. 9). When reading this, I scoffed. With a tendency towards self-criticism, it seemed unlikely I overestimated my abilities. After thinking fully about it, however, the truth was clear: tasks chosen are tasks perceived as strengths. This has been the area of greatest growth for me.

As an English teacher, I felt writing should not have been a problem. During the practicum class few problems were brought to my attention, which resulted in even more confidence in my abilities. As the project course began and these views were challenged, I stumbled. I lost momentum. I questioned every instinct. This slowed but did not halt my progress. Beginning with the aspects that admittedly needed work was a start. After working through those, I was more open to turning a more critical eye to other comments.
By the end, after regaining the ability to look more objectively at my writing, revising was fun for the first time in a long time, and I was proud of how the final product was emerging.

**The awkwardness principle.**

“Any act of learning requires us to suspend a natural tendency to want to appear fully competent. We need to accept the fact that we will be awkward, that our first attempts at a new skill will, at best, be only partial successes. Moreover, we need to allow this awkwardness to be viewed by some mentor who can offer feedback as we open ourselves up for instruction. (Newkirk, 2017, p. 10)

The final principle Newkirk (2017) proposed brings to light the problems in the previous arenas. This work was unlike any I had really done before, writing in a manner that had not been attempted in many years if at all. Although wanting and expecting to succeed right away, that did not happen, and I was not ready to open myself up to instruction.

Most of the what has been related so far is more of a cathartic release and may not seem like a reflection of learning, but it is. By personally experiencing these emotional reactions to writing, it has fueled the conviction that this is part of the reason that not enough writing is seen in classrooms, and that write to learn strategies are the first step in rectifying this trend. This knowledge, along with training in cognitive coaching, will complement each other as I work with teachers and students in the future.

Cognitive coaching uses the states of mind and how they affect the ability to problem-solve (Costa, Ellison, Hayes, & Garmston, 2015). These states of
mind--consciousness, craftsmanship, efficacy, flexibility, and interdependence--are not fixed. When a person is “stuck”, one way a cognitive coach can help is to ask questions that lead a person to access their capacity in a state of mind that is currently low. My capacities in different states of mind fluctuated throughout this process. I needed to tap into these innate resources to get myself back on track. For example, when feeling unsure how to begin this chapter, I was convinced I had no idea what to write and that the directions were not clear enough. Asking myself what had worked in the past in situations like this led to remembering looking at examples and determining key components. This provided a starting point. Beginning with a feeling of low efficacy, there was a need to shift towards options that gave me more control over the situation.

The bulk of my learning has centered on personal states of mind and how they have affected the approach to this project. With the plan to teach others about incorporating more writing into their classes, this learning has been invaluable. As both Zinsser (1988) and Newkirk (2017) have asserted, fear and embarrassment can be burdens that impede learning. Having encountered this recently, I can incorporate these tenets into the research-based practices on which my project is based.

**Revisit the Literature Review**

When considering the research gathered and synthesized, a few sources stand out. Zinsser (1988), as previously stated, was one of the first sources examined. I related to his writing more than most because it was based on research from working with teachers, and not so much an academic study. While it might not hold as much weight as other
sources, it is stories from this text that I most often find myself sharing with teachers, and they are stories that resonate with them.

The most practical and applicable source was Daniels, Zemelman, & Steineke’s (2007). This again was not a study-based source; rather, it is a collection of research-based practices for teachers to incorporate into their classes to increase the amount of writing. This text provided the breakdown of types of writing: short in-class writing, ongoing and/or more developed in-class writing, and extended, public writing (Daniels, Zemelman, & Steineke’s, 2007). The research pointing towards the importance and benefit of writing to learn is crucial to training, but teachers need practical and executable ideas in order for a training to be valuable. This source provides many examples to share and will be a book included on suggested resources.

Graham & Hebert’s (2011) meta-analysis of studies showing a correlation between writing and reading comprehension is another source that teachers will find valuable. The answer to their first question, “Does Writing About Material Read Enhance Comprehension?” (p. 726) was “yes” in 94% of studies. Most of these studies involved secondary students, and over half occurred in science and social studies classes, so that will affect the audience for this source, although they concluded that writing improves reading comprehension in grades 2-12. They found that the four types of writing were effective: “extended writing, summary writing, note taking, and answering/generating questions” (Graham & Hebert, 2011, p. 733).

One aspect of writing I had not previously considered was its relation to sociocultural theory. The overview of writing as social process by Bazerman (2015)
provided a strong framework for understanding the academic research examining the social processes of learning as it relates to writing. Nykopp, Marttunen, & Laurinen (2014) described many specific collaborative structures in their study, which opened up a realm of new possibilities to incorporate into instruction.

The final area of research that has remained with me include two that informed the planning and evaluation of professional development. The observation checklist created by Noonan, Gaumer Erickson, Brussow, & Langham (2015) lined up crucial aspects of training to be considered, not just with this project but in the smaller trainings I am a part of as an instructional coach. Guskey (2005) also illuminated a weakness in professional development as it relates to evaluation. Often feedback is gathered mainly in relation to a surface reaction to the experience with a bit of response to the learning garnered. Rarely is there developed exploration of the effectiveness based on the organizational support present, how teachers use the new knowledge over time, and the ultimate effect on student outcomes.

**Limitations**

The most significant limitation of my project is that in order to actually present my training, a minimum number of teachers need to sign up. If that does not happen, the training will not happen. That does not mean, however, that my work will be in vain. There is always the possibility to share parts of this work at staff meetings or as part of a longer professional development day. Also, I have already shared much of this work with teachers in the district, and being more versed in the research to support writing across content areas allows me to speak with more authority and provide more specific ideas.
Another limitation of the project involves the required time to really implement some of these changes and check for the effect on student outcomes. I will be able to only provide a beginning piece of the work in this area within the constraints of an hour long training session. Additionally, there is always more to learn. One area that was not explored was the overall effect writing to learn has on the quality of writing to communicate, which English department colleagues would be very interested in. As a teacher leader I will be able to continue to support others in this work while continuing my personal learning.

**Future**

The future implications of this work will be most prevalent in my own classroom. After finishing this school year as an instructional coach, I will return to my role as a high school English teacher. It is easy in this role to impart what should happen day to day in a class; I know that once teaching again there will be times of overwhelm and losing track of priorities. Finding a method of self-checking my work to ensure the continuance of these strategies will be imperative. Once it becomes a common routine, it will be more set, but that will only come with intentionality.

While I will not be in a role that directly works with other teachers on a daily basis, I still will be working collaboratively with others, especially in professional learning communities. This work will continue to be at the forefront of my interactions with colleagues. The high school also has professional development every other week, and are always looking for teachers to present. With writing to learn being a part of the AVID schoolwide plan, I anticipate aiding with some professional development in the future.
Summary

In this chapter, my learning was the focus, from personal discoveries to the academic research that most informed my work. The limitations of this project were examined, as well as predictions of how the future will be affected by this work. This entire chapter, along with the rest of this capstone project, has addressed the question, *How can teachers across all content areas incorporate write to learn strategies in order to improve student learning?* by aiding my own learning through writing. This is proof that putting thoughts into words and sentences allows one to grapple with concepts in a concrete manner, resulting in tangible thoughts and actionable plans.
References


the benefits of professional development is more important than ever before.

*Journal of Staff Development, 26*(1), 10-18.


Lawrence, KS: University of Kansas, Center for Research on Learning. Retrieved from


Appendix A: Observation Checklist for High-Quality Professional Development Training

**Observation Checklist for High-Quality Professional Development Training**

The Observation Checklist for High-Quality Professional Development[^1] was designed to be completed by an observer to determine the level of quality of professional development training. It can also be used to provide ongoing feedback and coaching to individuals who provide professional development training. Furthermore, it can be used as a guidance document when designing or revising professional development. The tool represents a compilation of research-identified indicators that should be present in high quality professional development. Professional development training with a maximum of one item missed per domain on the checklist can be considered high quality.

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<thead>
<tr>
<th>Context Information</th>
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<tr>
<td>Date:</td>
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<tr>
<td>Topic:</td>
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<tr>
<td>Observer:</td>
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**The professional development provider:**

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<tr>
<th>Preparation</th>
<th>Observed? (Check if Yes)</th>
</tr>
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<tbody>
<tr>
<td>1. Provides a description of the training with learning objectives prior to training</td>
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<tr>
<td>• EXAMPLE 1: Training description and objectives e-mailed to participants in advance</td>
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<tr>
<td>• EXAMPLE 2: Training description and goals provided on registration website</td>
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<tr>
<td>• EXAMPLE 3: Agenda including learning targets provided with materials via online file sharing before training</td>
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**Evidence or example:**

2. Provides readings, activities, and/or questions in accessible formats to think about prior to the training

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<th>Evidence or example:</th>
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<tbody>
<tr>
<td>• EXAMPLE 1: Articles for pre-reading e-mailed to participants in advance</td>
</tr>
<tr>
<td>• EXAMPLE 2: Book for pre-reading distributed to schools before training</td>
</tr>
<tr>
<td>• EXAMPLE 3: Materials made available via online file sharing</td>
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3. Provides an agenda (i.e., schedule of topics to be presented and times) before or at the beginning of the training

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<th>Evidence or example:</th>
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<tr>
<td>• EXAMPLE 1: Paper copy of agenda included in training packet for participants</td>
</tr>
<tr>
<td>• EXAMPLE 2: Agenda included in pre-training e-mail</td>
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4. Quickly establishes or builds on previously established rapport with participants

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<th>Evidence or example:</th>
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<tr>
<td>• EXAMPLE 1: Trainer gives own background, using humor to create warm atmosphere</td>
</tr>
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<td>• EXAMPLE 2: Trainer praises group’s existing skills and expertise to create trust</td>
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</table>
- **EXAMPLE 3:** Trainer uses topical videos to break the ice with the audience

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<th>Evidence or example:</th>
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<tr>
<td><strong>Introduction</strong></td>
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<td>Observed? (Check if Yes)</td>
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5. Connects topic to participants' context
- **EXAMPLE 1:** The state leader introducing the presenter explains that the topic is related to the initiative being implemented across the state
- **EXAMPLE 2:** Trainer shows examples from classrooms, then asks participants to compare the examples to what happens in their school
- **EXAMPLE 3:** Trainer shares participating district data profiles and asks participants to consider how the intervention might affect students

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<tr>
<td><strong>6. Includes the empirical research foundation of the content</strong></td>
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<tr>
<td>Observed? (Check if Yes)</td>
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</table>

- **EXAMPLE 1:** Trainer provides a list of references supporting evidence-based practices
- **EXAMPLE 2:** Citations to research are given during PowerPoint presentation
- **EXAMPLE 3:** Trainer references key researchers and details their contributions to the training content during presentation

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<tr>
<td><strong>7. Content builds on or relates to participants' previous professional development</strong></td>
</tr>
<tr>
<td>Observed? (Check if Yes)</td>
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- **EXAMPLE 1:** Trainer explains how intervention relates to other existing interventions within the state
- **EXAMPLE 3:** Trainer uses participants' knowledge of other interventions to inform training

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<td><strong>8. Aligns with organizational standards or goals</strong></td>
</tr>
<tr>
<td>Observed? (Check if Yes)</td>
</tr>
</tbody>
</table>

- **EXAMPLE 1:** Trainer shows how the intervention fits in with the Elementary and Secondary Education Act and individuals with Disabilities Education Act
- **EXAMPLE 2:** Trainer discusses how the district selected this intervention for implementation as part of an improvement plan
- **EXAMPLE 3:** Trainer refers to the program as part of a federally-funded State Personnel Development Grant

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<tr>
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<tbody>
<tr>
<td><strong>9. Emphasizes impact of content (e.g., student achievement, family engagement, client outcomes)</strong></td>
</tr>
<tr>
<td>Observed? (Check if Yes)</td>
</tr>
</tbody>
</table>

- **EXAMPLE 1:** Participants brainstorm the ways the intervention will impact students, especially students with disabilities
- **EXAMPLE 2:** Trainer uses data to show that the intervention is shown to positively impact post-school outcomes and inclusion in the general education classroom for students with disabilities
- **EXAMPLE 3:** Trainer shares research that shows that the use of the instructional strategies improved academic achievement for students

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<tbody>
<tr>
<td><strong>Demonstration</strong></td>
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<tr>
<td>Observed? (Check if Yes)</td>
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</table>

10. Builds shared vocabulary required to implement and sustain the practice
- **EXAMPLE 1:** Trainer has participants work together to formulate definitions of the intervention components and then goes over the definitions as a group
<table>
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<tr>
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<tbody>
<tr>
<td>11. Provides examples of the content/practice in use (e.g., case study, vignette)</td>
</tr>
<tr>
<td>- EXAMPLE 1: Trainer provides video examples of the intervention in place within classrooms at different grade levels</td>
</tr>
<tr>
<td>- EXAMPLE 2: Trainer provides hands-on demonstrations of how to use new technology tools</td>
</tr>
<tr>
<td>- EXAMPLE 3: Trainer uses a case study to demonstrate how to implement the intervention</td>
</tr>
</tbody>
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<tr>
<td>12. Illustrates the applicability of the material, knowledge, or practice to the participants' context</td>
</tr>
<tr>
<td>- EXAMPLE 1: Trainer describes how the intervention will benefit schools/classrooms</td>
</tr>
<tr>
<td>- EXAMPLE 2: Trainer shows trend data before and after the practice was implemented in a school</td>
</tr>
<tr>
<td>- EXAMPLE 3: Trainer presents a case study of a teacher who has successfully implemented the intervention</td>
</tr>
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<tr>
<th>Engagement</th>
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<tr>
<td><strong>Observed?</strong></td>
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<td>[Check if Yes]</td>
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<tbody>
<tr>
<td>13. Includes opportunities for participants to apply content and/or practice skills during training</td>
</tr>
<tr>
<td>- EXAMPLE 1: Trainer has participants perform a mock lesson using the new instructional strategy</td>
</tr>
<tr>
<td>- EXAMPLE 2: After receiving training on how to complete a form, participants practice completing the form with a sample case</td>
</tr>
<tr>
<td>- EXAMPLE 3: Participants practice identifying various instructional strategies from sample videos</td>
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<tbody>
<tr>
<td>14. Includes opportunities for participants to express personal perspectives (e.g., experiences, thoughts on concept)</td>
</tr>
<tr>
<td>- EXAMPLE 1: Participants use their experiences and prior knowledge to fill in a worksheet on the advantages and disadvantages of various instructional approaches</td>
</tr>
<tr>
<td>- EXAMPLE 2: Participants work together to strategize ways to overcome barriers to implementation in their school</td>
</tr>
<tr>
<td>- EXAMPLE 3: In groups, participants share personal and professional experiences related to the topic.</td>
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</table>

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<tr>
<td>15. Facilitates opportunities for participants to interact with each other related to training content</td>
</tr>
<tr>
<td>- EXAMPLE 1: Participants independently answer questions, then discuss those answers as a large group</td>
</tr>
<tr>
<td>- EXAMPLE 2: Participants work in groups to assess implementation progress in their building</td>
</tr>
<tr>
<td>- EXAMPLE 3: Participants think/pair/share about questions within the training</td>
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<tbody>
<tr>
<td>16. Adheres to agenda and time constraints</td>
</tr>
<tr>
<td>- EXAMPLE 1: Breaks, lunch, and dismissal occur on schedule according to written or verbal agenda</td>
</tr>
<tr>
<td>- EXAMPLE 2: Trainer adjusts training content to accommodate adjustments to agenda (e.g. participants arriving late due to inclement weather)</td>
</tr>
<tr>
<td>Evidence or example:</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td><strong>Evaluation/Reflection</strong></td>
</tr>
<tr>
<td>17. Includes opportunities for participants to reflect on learning</td>
</tr>
<tr>
<td>- EXAMPLE 1: Participants strategize how to apply the knowledge from the training in their own schools</td>
</tr>
<tr>
<td>- EXAMPLE 2: Participants record 3 main points, 2 lingering questions, and one action they will take</td>
</tr>
<tr>
<td>- EXAMPLE 3: Green, yellow, and red solo cups at tables used to visually check for understanding at key points throughout training</td>
</tr>
<tr>
<td>Evidence or example:</td>
</tr>
<tr>
<td>18. Includes specific indicators—related to the knowledge, material, or skills provided by the training—that would indicate a successful transfer to practice</td>
</tr>
<tr>
<td>- EXAMPLE 1: Participants work in district-level teams to use a graphic organizer to create an action plan</td>
</tr>
<tr>
<td>- EXAMPLE 2: Expectations for completing classroom observations outlined for coaches</td>
</tr>
<tr>
<td>- EXAMPLE 3: Materials provided for educators to do mid-semester self-assessment to see if intervention is being implemented</td>
</tr>
<tr>
<td>Evidence or example:</td>
</tr>
<tr>
<td>19. Engages participants in assessment of their acquisition of knowledge and skills</td>
</tr>
<tr>
<td>- EXAMPLE 1: Post-test to assess trainee’s grasp of learning objectives</td>
</tr>
<tr>
<td>- EXAMPLE 2: After guided practice on how to complete an observation form, participants use the form to individually rate a video example and compare their responses to the trainer</td>
</tr>
<tr>
<td>- EXAMPLE 3: Participants complete performance based assessment, illustrating that they have mastered the learning targets.</td>
</tr>
<tr>
<td>Evidence or example:</td>
</tr>
<tr>
<td><strong>Mastery</strong></td>
</tr>
<tr>
<td>20. Details follow-up activities that <strong>require</strong> participants to apply their learning</td>
</tr>
<tr>
<td>- EXAMPLE 1: Participants complete an action plan with clear activities, a timeline, and individuals responsible</td>
</tr>
<tr>
<td>- EXAMPLE 2: Due dates for steps of student behavioral assessment process reviewed at end of training</td>
</tr>
<tr>
<td>- EXAMPLE 3: Implementation timeline with due dates provided and discussed</td>
</tr>
<tr>
<td>Evidence or example:</td>
</tr>
<tr>
<td>21. Offers opportunities for continued learning through technical assistance and/or resources</td>
</tr>
<tr>
<td>- EXAMPLE 1: Trainer describes future trainings and explains how training fits into the series</td>
</tr>
<tr>
<td>- EXAMPLE 2: Trainer provides contact information for technical assistance including e-mail address and phone number</td>
</tr>
<tr>
<td>- EXAMPLE 3: Trainer shows participants where to find additional materials and readings on the project website</td>
</tr>
<tr>
<td>Evidence or example:</td>
</tr>
<tr>
<td>22. Describes opportunities for coaching to improve fidelity of implementation</td>
</tr>
<tr>
<td>- EXAMPLE 1: Trainer describes follow-up in-building support to be provided by state-level coaches</td>
</tr>
<tr>
<td>- EXAMPLE 2: Trainer provides monthly two-hour phone calls to discuss barriers and strategize solutions</td>
</tr>
<tr>
<td>- EXAMPLE 3: Series of coaching webinars scheduled to provide follow-up support and additional information on how to implement the intervention</td>
</tr>
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Authors’ Note:

This checklist is not designed to evaluate all components of professional development, because as Guskey (2000) points out, professional development is an intentional, ongoing, and systemic process. However, training (e.g., workshops, seminars, conferences, webinars) is the most common form of professional development because it is “the most efficient and cost-effective professional development model for sharing ideas and information with large groups” (p. 23). Therefore, this checklist is designed to improve and evaluate the quality of training.

References


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