| Core Function | Personalized Learning: Cognitive Competency |
| Effective Practice | Intentionally addressing students' accessible background knowledge to facilitate new learning |

Indicator: All teachers and teacher teams plan instruction based on the aligned and expanded curriculum that includes rich reading, writing, memorization, and vocabulary development. (C3)

Explanation: The evidence suggests that standards and provided curricula provide a baseline upon which teachers should expand their instruction. The Cognitive Competency is clear that both teachers and students should demonstrate knowledge of the standards, but that cannot be the extent of their educational experience. Teachers must employ four basic but critical elements of learning to expand their students' knowledge and skill bases: rich reading, writing, memorization, and vocabulary. While these are all independent tasks, they can be interrelated as well, and their complementary natures help students learn more deeply and effectively.

Questions: How much time is being devoted to reading, writing, and vocabulary study? How can teachers work to either use that time more meaningfully or expand the amount of time they spend on these critical concepts? How are reading, writing, memorization, and vocabulary being used to aid each other and promote literacy and content-area skills and knowledge? How are teachers working together across the school to improve these elements of Cognitive Competency for all students?

What is the Cognitive Competency?

The Cognitive Competency refers to what teachers, families, and volunteers "need to know" to best help their students learn; this can include the standards, curricula, and the basics of both child and brain development that will help them encourage student mastery of the content that they are learning (Educator Competencies, 2015). This competency aims to connect what students are learning to their prior knowledge and previously mastered material to foster and assist in new learning. Vocabulary and writing tasks play a key role in the cognitive competency, as tools for connecting pieces of knowledge across content areas and domains (Redding, 2016).
In the era of the Common Core State Standards and comparable sets of state-level standards, expectations for what and how students will learn have risen. Focusing more on conceptual understanding than on rote learning and memorization, these sets of standards represent a different way of learning than many adults were exposed to during their own school experiences. This era of learning standards emphasizes interdisciplinary learning and demonstrating proficiency in context, across multiple content areas, such as teaching and assessing writing in a social studies course (Ryerse, Schneider, & Vander Ark, 2014). This shift in standards nicely fits into the Cognitive Competency, which emphasizes making connections between content, skills, and knowledge (Redding, 2016).

How Must Teachers Expand on the Curriculum Provided?

Redding (2006) writes that, "State learning standards provide a floor, a minimum but necessary set of knowledge and skills that all students should master" (p. 74). While the Cognitive Competency requires that teachers both fully understand and adhere to standards and curricula, that is not where their job ends. At a minimum, teachers must ensure that what they are teaching is aligned to the state learning standards, the assessments their students will be taking, and the supplemental materials available to them. This allows for congruence between the resources and requirements and creates a framework upon which teachers can build (Redding, 2006).

Redding (2014) stresses that the Cognitive Competency has two parts: the cognitive content that students must come to learn and the cognitive processes by which they learn new material. Both elements are critical for teachers to intentionally incorporate into their curricula and lessons. Content and process are important for four particular elements of the Cognitive Competency: rich reading, writing, memorization, and vocabulary development, all of which should be incorporated into reading, language arts, and content area classes (Kamil, et al., 2008).

It is no mystery that rich reading and writing are considered hallmarks of the Cognitive Competency. However, not all reading instruction is the same, and it certainly does not always help students build their capacity for learning. Allington (2002) identifies six elements of the most effective reading and writing instruction that he has gleaned from his research. He notes that the most effective teachers dedicate about half of their instructional time to active reading and writing. While other activities – such as learning about the topic of the book, facilitating classroom talk about the book, or doing projects to reflect and expand on what was read – are also important for the child's overall comprehension and knowledge, increasing the amount of time spent simply reading and writing is very helpful for students to grow. Importantly, students must spend this time reading at their appropriate independent or instructional levels in order to effectively practice their skills and develop new knowledge. Teachers are responsible for helping students understand what effective reading looks like, through modeling and explicit instruction, as well as by helping them choose the texts that meet their interests and skill levels (Allington, 2002; Kamil, et al., 2008).

Graham and Hebert (2011) identify the infusion of writing tasks in the classroom as another way to complement reading instruction. They write, "In short, writing about text should facilitate comprehending it, as it provides students with a tool for visibly and permanently recording, connecting, analyzing, personalizing, and manipulating key ideas in text" (p. 712). They also assert that reading and writing, while different, are complementary – that instruction in one should work to enhance the other. As teachers are looking for ways to promote the Cognitive Competency in their classrooms, teaching reading and writing in complementary ways can improve their skills in both.

In current teaching discourse, little is said about memo-rization, and teachers are often discouraged from having students "drill and kill." However, memorization is not only a key skill for students to practice, but the content that becomes committed to memory serves as a learning tool for students as they accumulate new knowledge throughout their educational careers (Redding, 2014). Redding (2014) writes,

The content of memory— what is learned and committed to long-term memory—is a resource upon which the student draws in tackling new learning challenges. For this reason, what is learned (and committed to memory) is an aid in learning apart from the skill of memorization. (p. 7)

Much like the other three concepts, teachers must devote time for explicit instruction and practice in vocabulary development. Kamil, et al. (2008) explain that students typically learn vocabulary both through memorizing, reciting, and researching definitions, but they must also learn strategies for when they encounter new words in increasingly harder texts and in a variety of subject areas. Teachers must instruct students in how to use context clues and make inferences so that they are prepared to tackle new vocabulary words both within the classroom structure and when they are independently reading. Much like Allington (2002) concluded, key components of effective vocabulary instruction are devoting specific time for it, explicitly teaching strategies to help students with vocabulary, and to utilize the interplay of reading and writing to allow students to apply their new word knowledge.

As teachers work to enhance the Cognitive Competency within their instruction, they must remember that these four basic concepts of learning – rich reading, writing, memorization, and vocabulary – are still relevant and important for students to move beyond the "floor" that standards have established for their learning.

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