Recommendations for Revision of

The Reading Framework for the National Assessment of Educational Progress

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Align the definition of reading with cognitive targets. The current NAEP definition of reading is:

> "[R]eading is an active and complex process that involves:
>
> - Understanding written text.
>
> - Developing and interpreting meaning.
>
> - Using meaning as appropriate to type of text, purpose, and situation"
>
> (National Assessment Governing Board, 2017, p. 2).

Most definitions of reading focus on comprehension as the ultimate goal of reading. However, the above NAEP definition posits that we read to comprehend text, and then *use* what we comprehend for different purposes. Comprehension, when framed this way, is a midpoint in acts of reading. In contrast, current NAEP cognitive targets are locate/recall, integrate/interpret, and critique/evaluate. My concern here is that the current cognitive targets are better aligned with the idea that we read to comprehend than with the idea that we read to comprehend and then use what we comprehend. For example, if cognitive targets were better aligned with the third bullet above ("using meaning as appropriate…"), the targets might include *application of information gained from reading*, *synthesis of meaning gained from reading*, *contrasting and comparing diverse accounts of phenomena*, and *problem-solving with information gained from text.*

The tension between the definition of reading and the cognitive targets needs to be resolved, and I believe the most judicious solution path involves revisions of the cognitive targets. The targets should be expanded to include readers' cognitive activities involved in *using* what is learned from text.

Consider a new NAEP cognitive target: Realizing and constructing potential texts.

The NAEP cognitive targets account for a range of reading strategies, but there is an additional cognitive target worthy of consideration. Students, curriculum, and reading itself are becoming more focused on the Internet, and with this change, the strategy of locating texts becomes a possible cognitive target. For example, school reading tasks require that students independently search the vast resource of the Internet and find texts appropriate to the task at hand (e.g., find, read, compare and contrast, evaluate and synthesize a set of readings on wildlife management). Here, students use preliminary strategies like "realizing and constructing potential texts to read" (Afflerbach & Cho, 2009) to commence and then monitor their reading. Such strategies and targets, especially related to new forms of reading, should be a focus of the framework revision.

Consider the development of noncognitive targets.

Noncognitive factors, including motivation and engagement (Guthrie, Klauda, & Ho, 2013) and self-efficacy (Schunk, 2012), influence students' strategy and skill development, as well as their reading achievement. The popular concepts of grit (Duckworth, 2016) and positive mindset (Dweck, 2007) describe students who persevere in the face of difficulty—due, in part to motivation and high self-efficacy. We know the power of these factors, but the current NAEP Framework does not acknowledge them or

provide a means to address them. Establishing noncognitive targets will bring deserved attention to their prevalence and power in student reading.

The inferences made from NAEP results often guide thinking as to what we can do better—how teachers, schools, and society might best help our struggling readers. A NAEP Reading Framework that maintains exclusive focus on the cognitive aspects of reading will be limited to suggesting only cognitive remedies to what are often more broadly based student challenges. Because the Nation's Report Card is a valuable resource for describing "what matters" in reading education (National Academies of Sciences, Engineering, and Medicine, 2017), NAEP can offer considerable guidance on the nature and influence of these noncognitive factors.

Include metacognition as part of the NAEP Reading Framework focus.
Metacognition, which is central to students' successful reading, is characterized by strategies such as setting goals and monitoring progress (Veenman, 2016). Despite the contribution that it makes to reading, metacognition is rarely an assessment focus (Yang & Embretson, 2007). With the current NAEP, we infer students' metacognition from their successful performance, and the lack of metacognition from less accomplished performance. Acknowledging that metacognition is an essential element of reading may facilitate development of the NAEP Framework and related assessments that accurately describe the contribution of metacognition to students' reading.

Expand "aspects of literary and informational texts" to include author's purpose.
The current "aspects of literary and informational texts" include *Genres and types of text*, *Text structures and features*, and *Aspects of author's craft*. I recommend that a framework revision consider *Purpose of text* or *Author's purpose*. There is certainly

sufficient research literature and related classroom practice to warrant consideration of *Author's Purpose* as a first order aspect of text. It is especially important given the fact that students are increasingly asked to critique and evaluate what they read, and to search for and find trustworthy texts on their own through Internet reading.

Expand the notion of reader prior knowledge that is required to comprehend text.

Prior knowledge is essential for readers to construct accurate meaning from text, but it can unduly influence test performance and our interpretation of student reading achievement (National Research Council, 2001). In the past, NAEP Reading has aimed for texts believed to be not overly familiar to most students, but also not totally unfamiliar. Hitting this "sweet spot" involves educated guesswork, informed by NAEP pilot data on texts and items, and expert judgment as to a text's prior knowledge demand.

Historically, this prior knowledge demand has been conceptualized as content area-based (e.g., are students who are reading a NAEP passage about dinosaurs already familiar with *tyrannosaurus rex* and *velociraptors*?). Recent research demonstrates that successful readers also use prior knowledge related to reading task, genre, and task expectation. In later grades, students make judgments about trustworthiness of text, and source reliability. These decisions and strategies relate to epistemological prior knowledge (Ferguson & Braten, 2013). Proposals to provide prior knowledge to students prior to their reading of NAEP passages must consider this broad array of prior knowledge.

Expand notions of multiple texts comprehension.

Current NAEP Reading assessments include tasks that require students to read two texts. Accompanying test items require students to compare texts and focus on content and style, claims and evidence, and authorial approaches. In schools, students are reading text

sets (n > 2), with the expectation that they will synthesize relevant information across those texts, identify similar and contrary information, determine text/author biases, and vet each text for trustworthiness. As the current NAEP definition of reading focuses on "text" and not on "texts," the movement from singular to plural is an important consideration for the Framework, cognitive targets, assessment tasks, and related items.

Reflect the prevalence of multi modal reading.

Across the history of print, texts have included graphics and illustrations—multimodal reading is not new. However, the types of information included in contemporary texts now include embedded video, interactive charts, and click-throughs. While research focuses on how different modes of information complement (or detract from) one another to influence comprehension, texts in and out of school will continue to see migration of different modalities of information to accompany print. Going forward, NAEP Reading should reflect this migration with suitable texts and related test items.

Indicate when NAEP Reading involves higher order thinking.

Higher order thinking in reading demands that students synthesize, analyze, evaluate, and take epistemological stances towards texts (Afflerbach et al., 2015). Also, higher order thinking is associated with school and life success. Designating NAEP test items as requiring higher (or lower) order thinking, and reporting out student performance (i.e., indicating how higher order thinking relates to *Basic*, *Proficient*, and *Advanced* NAEP reading levels) will bring added value to the NAEP effort. It also presents an alternative means of describing and classifying cognitive targets.

Consider using commissioned "pseudo-authentic" texts.

NAEP Reading has, admirably, sought authentic texts for the assessment passages. While the attempt to "find" texts in the real world honors the goal of authenticity, it may be time to consider the value gained by commissioning the writing of texts that are tailored to the specific reader-text-task-context interactions that are called for by NAEP. Such specially commissioned texts might achieve a better fit in relation to text genre, content, required prior knowledge, assessment task, and test items.

References

Afflerbach, P., & Cho, B. (2009). Identifying and describing constructively responsive comprehension strategies in new and traditional forms of reading. In S. Israel & G. Duffy (Eds.), *Handbook of reading comprehension research*, 69-90. Mahwah, NJ: Erlbaum Associates.

Afflerbach, P., Cho, B., & Kim, J. (2015). Conceptualizing and assessing higher order thinking in reading. *Theory Into Practice, 54*, 203-212.

Duckworth, A. (2016). *Grit: The power of passion and perseverance*. New York: Scribner.

Dweck, C. (2007). *Mindset: The new psychology of success.* New York: Ballantine Books.

Ferguson, L., & Bråten, I. (2013). Student profiles of knowledge and epistemic beliefs: Changes and relations to multiple-text comprehension. *Learning and Instruction, 25*, 49–61.

Guthrie, J., Klauda, S., & Ho, A. (2013). Modeling the relationships among reading instruction, motivation, engagement, and achievement for adolescents. *Reading*

Research Quarterly, 48, 9–26.

National Academies of Sciences, Engineering, and Medicine. (2017). Evaluation of the

achievement levels for mathematics and reading on the National Assessment of

Educational Progress. Washington, DC: The National Academies Press.

National Assessment Governing Board. (2017). Reading Framework for the 2017

National Assessment of Educational Progress. Washington, DC: U.S. Department

of Education.

National Research Council. 2001. Knowing what students know: The science and design

of educational assessment. Washington, DC: The National Academies Press.

Schunk, D. H. (2012). Social cognitive theory. In K. Harris, S. Graham, & T. Urdan

(Eds.), *APA educational psychology handbook: Vol. 1. Theories, constructs, and

critical issues,* 101-123. Washington, DC: American Psychological Association.

Veenman, M. (2016). Metacognition. In P. Afflerbach (Ed.), *Handbook of individual

differences in reading: Reader, text, and context,* 26-40. New York: Routledge.

Yang, X., & Embretson, S. (2007). Construct validity and cognitive diagnostic

assessment. In J. P. Leighton & M. J. Gierl (Eds.), *Cognitive diagnostic

assessment for education: Theory and applications*, 119-145. Cambridge, UK:

Cambridge University Press.