

Higher Education Reviewers - Initial Review, June 2015

ELA

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“I have reviewed the English standards and found them clear, succinct, and concise. They make sense and are admirable learning goals. Students can do well in English if they adhere to these standards. Thank you for allowing me the opportunity.”

Sara Jane Richter

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The following is a review of the ELA standards draft to determine if the standards presented will, if mastered, ensure students are college-ready.

Because of a limited knowledge of early childhood benchmarks and specific learner outcomes in reading, I consulted with our Transitional Reading and Writing instructor, Christy Green, to determine the quality of the standards presented in the drafts entitled **FOUNDATIONAL READING AND WRITING SKILLS** and **PreKindergarten-4th Grade ELA Standards**. **FOUNDATIONAL READING AND WRITING SKILLS**.

- The terminology for Learning Outcome for PreK “will begin to demonstrate” is somewhat vague. The preK-12 draft standards, for the most part, address the recommendation from the OSRHE PASS standards report that precise measurable terms be incorporated into the learner outcomes. Some terminology in the draft standards could be replaced with more precise wording. For example, terms such as identify, use, and demonstrate could be clarified or could be paired with a more

specific outcome measure. The outcome “understand” is vague and should not be used.

PreKindergarten-4th Grade ELA Standards

- The 4th grade learner outcome states, “Students will continue to apply reading skills and strategies to continue developing fluency and comprehension while reading and writing.” There is also reference to “prereading” skills. However, this terminology is not specific. A recommendation identified in the OSRHE PASS Standards report states, “Context clues, structural analysis, wide reading, and reference tools work together within a framework of a specific reading task.” More emphasis on Active Reading strategies should be incorporated and be reinforced in upper grades. Many of the students who are required to take transitional courses in college do not have adequate reading and study skills necessary to success. Specifically,
 - a. note-taking
 - b. scanning
 - c. organizational patterns
 - d. reading rate
 - e. annotating
 - f. test-taking
- Under 3rd grade Comprehension, it states, “Students will monitor their reading and apply fix up strategies when necessary.” What exactly are “fix up” strategies?
- Under 2nd grade Writing, outcome b. it states that “students will practice safe and ethical behaviors” when communicating with others. Vague.
- Graphic literacy needs to be incorporated into the learner outcomes early and reinforced in upper grades. The ability to analyze charts, graphs, and other non-verbal information is included in all standardized testing. While there are references to non-print and non-verbal texts, there is no specific reference to outcomes related to the ability to analyze data based upon graphs and charts.
- The traditional reading skill sets are included in the outcomes with the exception of cause and effect. This strategy is important in college level courses throughout disciplines. The recommendation in the OSRHE PASS Standards report noted the importance of the interpretation and construction of critical text structures and stated specifically, “Students should be engaged every year in analyzing and composing texts that use cause/effect....”
- Some literacy experts prefer a distinction be made between “purpose” and “intent” in terms of identifying rhetorical strategies. In the ACT College and Career Readiness Strategies, under Purpose and Point of View, a 16-19 score range question requires

the reader to “Recognize a clear intent of an author or narrator” in a passage. Whereas, in a 20-23 score range, the reader is asked to “identify a clear purpose” of a passage. The ELA PASS review team noted in its recommendations that the ELA PASS Glossary should be updated “to provide definitions of a broader range or terms.”

Grades 5-12 English Language Arts Standards

- The Reading standard under 1. Speaking and Listening refers to “knowledge of print and non-print texts.” However, the outcomes identified make no reference to either print or non-print texts but only to the ability to discourse in pairs, groups, in whole class. Should the outcomes mention the discourse is directed discourse based upon print and or non-print texts?
- Under 2. Reading Process/Writing Process subset Reading, learner outcome for 7th grade says students will “begin to generalize.” That is vague and not measurable.
- While several specific learner outcomes address summarizing, paraphrasing, etc., the need to identify main idea and supporting details has not been sufficiently reinforced since its introduction in the 3rd and 4th grades unless “citing textual evidence” which is found in numerous outcomes could be interpreted to include incorporating the main idea and supporting details.
- Under Writing 3. Vocabulary, The learner outcome states, “Students will expand vocabulary through reading, word study, and class discussion.” The use of context clues is not addressed beyond the 4th grade standards. See the recommendation from the OSRHE ELA PASS report above.
- Reinforcing the author’s intent and purpose specifically relating to logical fallacies should be incorporated. Learner outcomes emphasize citing textual evidence to support claims and evaluation of sources, but no learner outcomes address logical fallacies explicitly. In the OSRHE ELA PASS standards report, the evaluators noted that there should be a clear distinction between argumentation and persuasion in writing standards as argumentation is a common form of writing in college. This should include logical fallacies.
- In section 5. Language, the outcomes identified do not seem to have any cohesive progression. In other outcome sets, terminology is repeated throughout grade levels; whereas, in section 5. Language, the outcomes are essentially “taught and forgot.” In the recommendation section of the OSRHE ELA PASS standards report, evaluators noted “A close review or sub-standards within Grammar/Usage and Mechanics Standards at each grade level would resolve some vague expectations for student writer and editors.” While the learner outcomes in 5 are now very specific, they are not carried through multiple grade levels.

- Under Multiple Literacies, Reading, Grade 12 learner outcome references “non-verbal texts” as well as “multimedia texts.” The terminology needs to be defined. Graphs and charts are often non-verbal and can be either print or multimedia.
- The last section on independent reading and writing says in part “students will read independently for pleasure.” Can’t require a person to like it. Do it, yes. No teacher should be held accountable for requiring a student to like reading. The section on independent reading does address the ELA PASS report recommendation that the ability to read independently is important. However, the outcomes do not address the aspect of “Learning how to interpret literature and informative highly technical and often lengthy reading passages should be an overarching goal of ELA PASS.” Perhaps the independent reading and writing outcomes can be refined.
- One recommendation made by the ELA review committee and included in the OSRHE PASS standards report identified that it would help if a matrix were to be developed to help teachers, schools, and parents identify when students are introduced to a standard and when they are expected to master it. The headings in the **Grades 5-12 English language Arts Standards** are confusing. Under 1. Speaking and Listening, there are two sections-reading and writing, though the outcomes are related to speaking or listening. **PreKindergarten -4th ELA standards identifies 1.Speaking and Listening: Reading/Listening: Learning Outcome: Listening and Understanding.** Then, there are actual speaking and listening outcomes.

Overall, the standards appear thorough, and students who master these specific outcomes would be college ready.

I decided to review these standards from the point of view of a physics professor (which I am). While I did look at the specific wording of items I was really focused on the whether or not students who were competent in these items would be ready for College Physics I (prerequisite of college algebra (no trig)). The following are skills we hope our students have on the first day of physics I.

- 1) Solve linear or higher power equations for any of several variables in the expressions
- 2) Solve quadratic equations for both roots
- 3) Be able to interpret numerical results as reasonable in the context of the problem
- 4) Graph practically any function...but particularly linear data
- 5) Draw conclusions from graphs using slopes, tangent lines, area under curve, and unit analysis
- 6) Good grasp of geometric relationships and definitions such as perimeter, area, volume
- 7) Good grasp of angular relationships in intersecting lines and in triangles
- 8) The Pythagorean Theorem

- 9) Solve systems of equations using various methods including graphical analysis
- 10) Knowledge of exponentiation and algebraic rules involving exponents and roots
- 11) Some basic statistical knowledge...mean, median, mode, and some measure of “spread” or error.

I found each of these skills represented directly in at least one standard....usually multiple times throughout the pre- algebra, geometry, algebra sequence. A student who has reached competency in standards listed will, in my opinion, be ready for college level mathematics and physics. I was particularly impressed with the sine, cosine, tangent standards in Geometry (G5.4 and G5.5). This is essentially what we teach our incoming physics students who have not had trigonometry. I don't recall that being taught in my high school geometry course (~1982).

When reviewing the PASS standards last year my major concern was that the higher level reasoning and “interpretation” material was optional. I don't recall the exact language but it amounted to giving individual districts the option of teaching to those standards... effectively making the “same” algebra course different from district to district. I am glad to see that language is missing from this material.

As far as concrete “proofreading” things I did notice that two standards seem to be incomplete...essentially ending in mid – sentence. These are 2.A1.2 and 4.D1.3

Thanks for the opportunity to review and comment.
Yours

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MATHEMATICS STANDARDS FIRST DRAFT REVIEW

1. Are the proposed standards on the path to resolving the issues contained in the “Findings” portion of the report?

Concern 1 and its recommendation address the ACT standard and language, “work with numerical factors,” and the need for clarification in the high school standards. The inclusion of *Number and Operation* (strands?/domains?/elements?) in Pre-Algebra, Algebra I, and Algebra II provide expectations and remove the need for interpretation regarding level/rigor of the phrase.

Concern 2 (vagueness) is addressed through the detail in the standards. The rigor (concern 3) has increased, particularly in the lower grades, and is evident in the detail of the standards. The format of the document and the stem of the standards places emphasis on the process standards (concern 4).

2. **What issues/concerns remain to be addressed?** All concerns from the report have been addressed.

3. **What specific changes/edits do you recommend?**

- There appears to be a change in the format of the labels in the middle grades (Grade 4: 4.A2.1; changes to 5.A.2.1) then changes back for HS.
- The sample section says, "Sample problems *OR* classroom activities." It would be beneficial to provide BOTH when possible.
- While it was noted that vertical alignment is not fully considered in the draft, there should be a clear lineage of vocabulary and concepts within grade strands and standards. A teacher should know that x.A2.1 will scaffold.

For example, 6.A.2, "Apply the associative, commutative, and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers."

5.A.2.1, "Recognize and Apply the commutative, associative, and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers."

4.A2.1, "Use number sense, properties of multiplication (commutative, identity, and associative) and the relationship between multiplication and division to find values for the unknowns that make the number sentences true."

4. **Other Comments**

All levels of mathematics instruction were represented on the writing team, and it is obvious that the team was well informed with the findings from the report and with mathematics content. I still have a concern about how well teachers will initially react to some of the increases in rigor (ex: 'fractions' being part of kindergarten language), but I believe that sample problems and classroom activities will be a significant benefit.