

Arizona Reading Content Standard to NAEP Reading Framework



Alignment Study

Executive Summary
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*“Today a reader, tomorrow a leader.”
- Margaret Fuller*

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Introduction

"Once you learn to read, you will be forever free."

— Frederick Douglass

The Arizona Reading Standard was compiled to provide a clear delineation of what students need to know and be able to do. Likewise the National Assessment of Educational Progress (NAEP) Reading Framework was created to examine reading comprehension of students in Grades 4, 8, and 12. While both documents are highly regarded nationally by experts in the field, the Arizona Superintendent of Public Instruction, Tom Horne, of the Arizona Department of Education felt it necessary to check the alignment between the two documents prior to the revision to the Arizona Reading Standard in 2008.

The current Arizona Reading Standard was articulated by grade level in 2003 by Arizona educators with guidance from the Arizona Department of Education in order to meet federal guidelines. The committee referenced the National Council of Teachers of English and the National Reading Panel in their work. The previous Standard was written in grade-level bands and had benchmarks at grades 3, 5, 8, and high school. The standard is set to be revisited in 2008-2009 to fulfill the schedule for periodic review.

While working within the requirements of NCLB, Arizona schools have also participated in the NAEP since the early 1990s. The NAEP is used to measure student performance and how that performance changes over time across the nation and state-by-state. Under the No Child Left Behind Act (2001) legislation, schools across the nation accepting Title I funds are required to participate in the NAEP. The Arizona Board of Education has taken the participation a step further by deeming the NAEP a necessary national assessment for all Arizona schools to participate in if selected. Although

there are no awards or penalties tied to NAEP performance, every state is able to see the trend of their students' progression over time in key content areas such as mathematics and reading.

The National Assessment Governing Board, whose purpose is to set policy for the NAEP, called for the development of a new reading framework to replace the operational framework from 1992. In 2009, the new reading framework (which references the National Council of Teachers of English, the National Reading Panel, the RAND Reading Study Group, the Progress in International Reading Literacy Study, and the Programme for Student Assessment) will become operational for the National and State NAEP. This alignment study is to compare the 2009 NAEP Reading Framework for grades 4 and 8 to the current Arizona Reading Standard for grades 1 through 8. The research questions for this study are:

- 1) Which NAEP Reading Framework objectives are exact matches, partial matches, or not covered by the current Arizona Reading Standard Performance Objectives?
- 2) In which grade(s) are the NAEP Reading Framework objectives taught in the current Arizona Reading Standard?

The purpose of this study is to provide the Arizona Reading Standard revision committee with a report on the alignment of the current Arizona Reading Standard to the NAEP Reading Framework with the goal of producing a fully aligned revision. The alignment committee met for three days, February 25-27, 2008 at the Desert Willow and Black Canyon Conference Centers in Phoenix, Arizona to complete the study. The results will be presented to Superintendent Horne, the Arizona Reading Standard Revision Committee and the Arizona State Board of Education.

Methodology

Researching current national alignment models revealed that there wasn't a model that only compared standards to standards in the detail we needed for the revision committee, so a new one was devised. Participants compared the content of the NAEP Reading Framework objectives for grades 4 and 8 to the Arizona Reading Standard for grades 1 through 8. Two groups were formulated (five participants in the elementary group and five participants in the intermediate group) to examine grade spans 1 through 4 and 5 through 8 (See Appendix A). In order to qualify as a rater for this project the committee members had to be proficient with the Arizona Reading Standard and had to have at least 3-5 years of teaching experience.

The first morning the participants were given background information about the NAEP, the process of developing the NAEP Reading Framework, and how Arizona students score on the NAEP. The complete agenda can be found in Appendix B. The committee members were trained and given guidelines to follow throughout the alignment process. Each committee member as provided with a copy of:

- the Arizona Performance Objectives from the Arizona Reading Standard,
- Arizona Reading Standard Glossary,
- NAEP Reading Framework,
- reference materials, including a dictionary, NAEP released test items, and Arizona Item Specifications.

Interrater Agreement

An interrater agreement assessment was given to the groups to confirm that all participants understand the process of rating the contents and to see how much agreement could be expected on average from our groups. Three NAEP objectives were used for each group during this session. The groups were given 20 minutes to decide if there were “exact matches,” “partial matches,” or “no matches” in the Arizona performance objectives. The group also had the option of marking the “unsure” column and adding comments. This task was completed individually followed by a second task of a group discussion regarding their ratings of the three objectives. The elementary group had 93.0 percent complete agreement with each other and the intermediate group had 80.0 percent complete agreement. This was found acceptable after reviewing their worksheets in detail. (See Appendix C for a detailed description.) There was a scribe assigned to each group to provide a transcript of the discussions for the final report.

Alignment Model

There were two packets of worksheets for the committees to work through. These worksheets were also available to the committee members on a computer. The first worksheet (see Appendix D for an example of Worksheet #1) had a NAEP objective listed at the top and contained a table with four columns marked “exact match,” “partial match,” “unsure,” and “comments.” The participants were asked to first work alone to list the Arizona performance objectives they felt fell into these categories. Next, they discussed their individual results within their group. After discussion, participants were permitted to change their selections. The elementary group had 123 NAEP objectives to work through and the intermediate group had 41 NAEP objectives.

The second set of worksheets (known as Worksheet #2) had the Arizona Reading Performance Objectives listed down the side with five columns titled “exact match,” “partial match,” “unsure,” “no match,” and “comments” (see Appendix E for an example of Worksheet #2). Worksheet #2 required that the participants work individually. This worksheet provided a different perspective of alignment between the Arizona Standard and the NAEP Framework. The purpose of this worksheet was to reveal the detailed information we needed to tell what we may or may not be missing from the Arizona Standard. A training was incorporated prior to the groups working on Worksheets #1 and #2.

During the three-day study, we had a scribe assigned to each group to record any comments that participants made pertaining to the Arizona standard/performance objectives, NAEP framework/objectives, or the alignment model. On the third day the participants handed in an evaluation sheet regarding the alignment model we were piloting with this study.

Results

The data review and the participant comments indicated that the NAEP reading objectives were presented in a list fashion without any further explanation whereas the Arizona Reading Performance Objectives are much more defined and in many cases contain examples. This caused frustration among the raters when it came to looking for exact matches on Worksheet #1. As a result, the raters listed a number of Arizona performance objectives under any one NAEP objective that would create a full or partial match. Both worksheets were combined to show if there were matches between the NAEP Framework and the Arizona Reading Standard, exactly what performance objectives made up those matches, and what grade spans these elements were being taught at in order to answer both research questions.

Reading – NAEP/AZ Alignment of Performance Objectives

We were also able to determine which elements were missing from the Arizona Reading Standard to complete an exact match. It should be noted that there were “exact” matches, “partial” matches, and “no” matches found along with a list of Arizona Reading Objectives that are not covered by NAEP.

Tables 1 through 4 read left to right; however, you may see a number of Arizona Performance Objectives listed for one NAEP Objective. This is the result of the difference in breadth of the NAEP Objectives versus the Arizona Performance Objectives (see Figure 1).

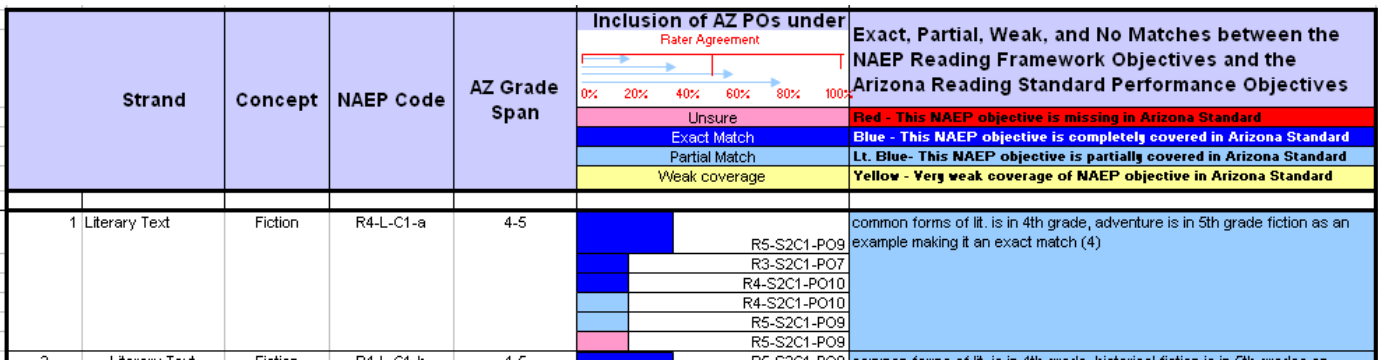


Figure 1.

This NAEP objective shown above is *Literary Text* and the content strand is *Fiction*. Our raters found that there was only a partial match of the objective (as seen by the blue indication of the last column) to the Arizona Standard in grade span 4-5. The Arizona performance objectives that make up that partial match are listed in column six, R5-S2C1-09, R3-S2C1-07, and R4-S2C1-10. Of the raters, 40% felt that R5-S2C1-09 was *completely included* in the NAEP objective, and 20% felt that R3-S2C1-07 and R4-S2C1-10 were *completely included* in the NAEP objective. Twenty percent also felt that R4-S2C1-10 and R5-S2C1-09 were *only partially included* in this NAEP objective, and 20% of the raters were *unsure* whether R5-S2C1-09 was included at all. Combining the Arizona Performance Objectives does not form a full match to the NAEP objective, meaning that there are still elements left out of the Arizona Reading Standard that are being assessed on NAEP.

Grade 4

Table 1 (shown on page 12) shows that there are 50 NAEP objectives or nearly 41% (shown in red), that are not covered in the current Arizona Reading Standard. When combined with those NAEP objectives that are “weakly” covered (2%) by the Arizona Reading Standard, 43% of the NAEP Framework is not covered by Arizona teachers. (The term “weakly” in this context refers to the fact that the teachers believed one aspect of the NAEP objective might be covered, but not enough to be considered partial coverage). For example, the NAEP Objective in Informational Text/Argumentation & Persuasive Text, R4-I-C2-s, *Graphic Features: Sidebars* was found by the raters not to have been covered at all in the Arizona Reading Standard.

In the table below (Figure 2), the NAEP Objective shown below in *Literary Text/Fiction*, R4-L-C1-j and R4-L-C1-l, were designated as a “no matches” by our raters (as indicated by the color red in the last column) because they are exact matches at grade 5 in Arizona’s Reading Standard. Eighty percent and 100% of the raters agreed that this NAEP objective is an exact match to the grade 5 Arizona performance objective as indicated in blue in column six.

Strand	Concept	NAEP Code	AZ Grade Span	Inclusion of AZ POs under Rater Agreement	
				0% 20% 40% 60% 80% 100%	Exact, Partial, Weak, and No Matches between the NAEP Reading Framework Objectives and the Arizona Reading Standard Performance Objectives
				Unsure	Red - This NAEP objective is missing in Arizona Standard
				Exact Match	Blue - This NAEP objective is completely covered in Arizona Standard
				Partial Match	Lt. Blue- This NAEP objective is partially covered in Arizona Standard
				Weak coverage	Yellow - Very weak coverage of NAEP objective in Arizona Standard
10	Literary Text	Fiction	R4-L-C1-j	5	In grade 4 students are only asked to identify the moral of a literary selection, in 5th grade they are instructed on identifying theme (4). Exact match at Grade 5.
12	Literary Text	Fiction	R4-L-C1-l	5	In grade 4 students are only asked to identify the moral of a literary selection, in 5th grade they are instructed on identifying theme which lessons is a component of (3), Lesson is first mentioned in 5th grade

Figure 2.

Many of the NAEP objectives are partially covered (34%), as shown in Figure 3, which means that although there are some Arizona Performance Objectives included under a particular

Reading – NAEP/AZ Alignment of Performance Objectives

Strand	Concept	NAEP Code	AZ Grade Span	Inclusion of AZ POs under the Percentage of Rater Agreement	Exact, Partial, Weak, and No Matches between the NAEP Reading Framework Objectives and the Arizona Reading Standard Performance Objectives																							
				Unsure	Red - This NAEP objective is missing in Arizona Standard																							
				Completely Included	Blue - This NAEP objective is completely covered in Arizona Standard																							
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				Weak coverage	Yellow - Very weak coverage of NAEP objective in Arizona Standard																							
8	Literary Text	Fiction	R8-L-C1-h	9	<table border="1"> <tr><td></td><td>R5-S1C4-PO3</td><td rowspan="12">Not in AZ standards until 9th grade (5)</td></tr> <tr><td></td><td>R6-S1C4-PO4</td></tr> <tr><td></td><td>R7-S1C4-PO4</td></tr> <tr><td></td><td>R8-S1C4-PO4</td></tr> <tr><td></td><td>R5-S2C1-PO7</td></tr> <tr><td></td><td>R6-S1C4-PO4</td></tr> <tr><td></td><td>R5-S1C4-PO4</td></tr> <tr><td></td><td>R6-S2C1-PO6</td></tr> <tr><td></td><td>R7-S2C1-PO6</td></tr> <tr><td></td><td>R8-S2C1-PO6</td></tr> <tr><td></td><td>R7-S2C2-PO1</td></tr> </table>		R5-S1C4-PO3	Not in AZ standards until 9th grade (5)		R6-S1C4-PO4		R7-S1C4-PO4		R8-S1C4-PO4		R5-S2C1-PO7		R6-S1C4-PO4		R5-S1C4-PO4		R6-S2C1-PO6		R7-S2C1-PO6		R8-S2C1-PO6		R7-S2C2-PO1
	R5-S1C4-PO3	Not in AZ standards until 9th grade (5)																										
	R6-S1C4-PO4																											
	R7-S1C4-PO4																											
	R8-S1C4-PO4																											
	R5-S2C1-PO7																											
	R6-S1C4-PO4																											
	R5-S1C4-PO4																											
	R6-S2C1-PO6																											
	R7-S2C1-PO6																											
	R8-S2C1-PO6																											
	R7-S2C2-PO1																											

Figure 4.

There are 12 NAEP objectives (30%) that are partially covered by Arizona performance objectives (shown in Table 3) and 2 NAEP Objectives (5%) that are completely covered (shown in blue in the last column of Table 4, page 44) by the Arizona performance objectives.

Conclusion

The NAEP framework, as a whole, was specifically written to have every objective assessed; therefore, if we find that Arizona standards are not covering an area in the NAEP framework, the chances of our students scoring higher on that portion of the NAEP are extremely slim.

The raters felt that the NAEP Framework was too vague in certain areas. For example, under Literary Text, Literary Nonfiction: Organization, the word “description” is stated without any explanation as to what specifically is needed to be described. Many of the NAEP Framework objectives are covered in the Arizona Reading Standard later than grade 4 or 8 and therefore were considered a “no match” or “partially covered” at those grade levels.

When studying the matrix for “partially covered” NAEP objectives (indicated by light blue in column 7 of Tables 1 and 3), reading experts will be able to tell by omission in column 6 (“Inclusion of AZ POs”) the elements missing from the Arizona Reading Standard that are being tested on

NAEP Reading. A total of 42% of NAEP objectives at Grade 4 and 63% of NAEP objectives at Grade 8 are not covered in the Arizona standard by those grade levels. Therefore, we cannot assume these reading elements are taught by teachers in our schools. This is only one piece of the puzzle to form an alignment with NAEP. Addressing the results of this study should make some impact in students' performance on the state NAEP.

References

- Murphy, K. R., DeShon, R. (2000). Interrater correlations do not estimate the reliability of job performance ratings. *Personnel Psychology*, 53, 873-900.
- Tziner, A., Murphy, K., Cleveland, J., Beaudin, G., Marchand, S. (1998) Impact of rater beliefs regarding performance appraisal and its organizational contexts on appraisal quality. *Journal of Business and Psychology*, 12, 457-467.

**Note: All tables and appendices will be distributed upon request. Please call the Arizona Department of Education, Standards and Assessment Section for any requests regarding this report at 602-542-5031.*

In addition to the tables in the full report there are two additional tables that indicate the Arizona Reading Standard performance objectives that are not assessed on NAEP Reading (i.e., Appendices F and G).