

*Aligning
Standard to
Standard*

Arizona Standard Alignment Model (SAM)

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Problem

- Standards aligned to the NAEP Frameworks?
- If no alignment was found at grades 4 and 8 then where?

Research Questions

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

Goal

- Deliver results to the Arizona Standards Revision Committee prior to revision of our standards:

Revision Schedule	
Mathematics	Summer, 2007
Reading	Fall, 2008

Alignment Models

Assessment

Standard

SEC

Webb Model

HumRRO – Kentucky Dept. of Education

Achieve, Inc. – Michigan Dept. of Education

Standard

Standard

Arizona Standard Alignment Model (SAM)

Overview

- Consists of two parts
- Compared newest NAEP Framework to *current AZ Standard* (prior to AZ revision)
- 13 Raters - Math
10 Raters - Reading
- Two Observers
- Four support staff

Arizona Standard Alignment Model (SAM)

Raters

Rater Selection Criteria

- Highly qualified teachers with at least 3-5 years of teaching experience in Arizona
- Needed solid knowledge of current AZ Standards

Team Formation

- Two teams were formed
 - AZ Grades 1-4 to NAEP Grade 4
 - AZ Grades 5-8 to NAEP Grade 8
- Gave them ground rules to follow during each of the three days together
- Gave them a timeline

Model Training

Inter-Rater Agreement Measures

- To see what kind of agreement they had as a group
- Check comfort level of raters with the model
- Get a picture of the group dynamics

Arizona Standard Alignment Model (SAM)

Methodology –Part I

Worksheets were provided that listed one NAEP Framework Objective per page.

- Codes were created for NAEP & Arizona Objectives
- The raters were to list which AZ Performance Objective(s) were a full match or a partial match.
- Comments were added when the rater felt it necessary.
- Raters started by working individually and then holding a group discussion
- Provided an overall picture of alignment (or lack thereof)
- Provided comments on every NAEP Framework Objectives

Arizona Standard

Methodology – Part I

Rater: *[Signature]*
 M4 - N - C1-j
Number Properties and Operations
Number Sense
 j) Order or compare whole numbers, decimals, or fractions.

Exact Match	Partial Match
① M4 - S1 - C1 - 07	
② M4 - S1 - C1 - 08	
③ M4 - S1 - C1 - 12 ✓	
M3 - S1 - C1 - 13 ✓	
M5 - S1 - C1 - 04 ✓	
M6 - S1 - C1 - 02 ✓	
④ M4 - S1 - C1 - 13 ✓	
M3 - S1 - C1 - 14 ✓	
M5 - S1 - C1 - 05 ✓	
M6 - S1 - C1 - 03 ✓	
⑤ M4 - S1 - C1 - 15 ✓	
⑥ M4 - S1 - C1 - 15 ✓	

NAEP		Arizona
127	R4-L-C2-e EXACT	
128	R4-L-C2-e PARTIAL	
129	R4-L-C2-e COMMENTS	RD4-s2c1-P08 in literary text,
130		
131	R4-L-C2-f EXACT	
132	R4-L-C2-f PARTIAL	
133	R4-L-C2-f COMMENTS	RD6- S1c6-P06
134		Never uses the term chronology, chronological order is used in grade 6- AZ does not have a strand "Literary
135	R4-L-C2-g EXACT	
136	R4-L-C2-g PARTIAL	
137	R4-L-C2-g COMMENTS	RD5-s2c1-po5
138		RD3-s2c1-po5, RD4-s2c1-po6
139	R4-L-C2-h EXACT	AZ uses term "identify speaker or narrator" and the term "point of view" not used until grade 5.
140	R4-L-C2-h PARTIAL	
141	R4-L-C2-h COMMENTS	RD5-s2c1-P02
142		
143	R4-L-C2-i EXACT	But not exclusively literary

C145
 Content Standards Alignment
 Po's
 B

06/16

June 11-13, 2007

Arizona Standard Alignment Model (SAM)

Methodology –Part II

Worksheets were provided that listed Arizona Performance Objectives.

- Same codes were used from Worksheet #1
- The raters were to list which NAEP Framework Objective(s) were a full match or a partial match.
- Comments were added when the rater felt it necessary.
- Raters were to work individually
- Provided comments on every AZ Performance Objective
- Provided a list of AZ Performance Objectives that are not assessed by NAEP®

Arizona Standard Alignment

Methodology – Part II

Arizona Mathematics Content Standards/NAEP Framework Objectives

Arizona Performance Objectives	Exact Match	Partial Match	No Match	Comments
1 G1-S1C1-01				
2 G1-S1C1-02				
3 G1-S1C1-03				
4 G1-S1C1-04				
5 G1-S1C1-05				
6 G1-S1C1-06				
7 G1-S1C1-07				
8 G1-S1C1-08				
9 G1-S1C1-09				
10 G1-S1C1-10				
11 G1-S1C1-11				
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269 G1-S1C1-269				
270 G1-S1C1-				

Arizona Standard Alignment Model (SAM)

Methodology

Both Worksheets:

- Answered RQ 1 and RQ 2
- Provided a “checks and balances” between both worksheets
- Provided (by omission) what was missing from the AZ Standard that was preventing a full match from a partial match

Worksheet #1 ensured that every NAEP Objective was covered

Worksheet #2 provided us with the knowledge of how many AZ Performance Objectives were not covered by NAEP

Alignment Data

		Inclusion of AZ POs under 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	
		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	
Strand		R4-S2C1-PO2		"Resolution" is first used in grade 4 and "Solution" is used in grade 2 R02-s2c1-p01 no clear definition of these two terms (5). IS THE RESOLUTION AND SOLUTION THE SAME?	
		R2-S2C1-PO1			
		R5-S2C1-PO1			
		R5-S2C1-PO1			
		R4-S2C1-PO2			
16	Literary	R5-S2C1-PO6		Setting is introduced in Kindergarten and increases in complexity to include "all aspects" in grade 4. (5).	
		R4-S2C1-PO7			
		R3-S2C1-PO1			
17	Literary	R3-S2C1-PO1			
		R4-S2C1-PO8			
		R4-S2C1-PO8			
		R4-S2C1-PO8			
20	Literary	R5-S2C1-PO7		R8-s1c4-P04 8th grade "hyperbole" is an exact match (4). Exaggeration is viewed as a persuasion technique, a narrow use in grade 4. Not until Gr. 8 is exaggeration used in literary texts.	
		R3-S2C1-PO2		Very little of objective m is found in the AZ standards (1). Author's techniques are introduced here, but not as extensively as the NAEP description (1). The 4th grade po is preparation for 5th grade R5-S2C1-PO7 - but both are incomplete (1).	
		R5-S2C1-PO7			
35	Literary	R2-S2C1-PO1			
		R4-S2C1-PO5			
		R3-S2C1-PO4			

	R5-S2C1-PO7
	R1-S2C1-PO2
	R3-S2C1-PO5
	R5-S2C1-PO7

36	Literary Text	Literary Fiction	R4-L-C2-n	4-8	R5-S2C1-PO7	R8-S1C4-04 Exact match - Exaggeration is used as a form of persuasion in nar
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Evaluation of SAM

June 2007

N = 13

Some of the suggestions from the raters were incorporated into the February 2008 Reading Alignment study

Evaluation of SAM

N=13

1) Was the quality of training sufficient to carry out the task? **Y(11) N(1)**

1a. If not, what would you suggest is done differently?

- More feedback on papers first done [Interrater Agreement] and more training for aligning NAEP to ADE [Wrksht #2]
- Maybe give groups time to read NAEP over for a bit – since it was new to many.

2) Did you feel you had enough time to discuss the objectives with your group during the alignment sessions? **Y(10) N(2)**

2a. If not, what would you suggest is done differently?

- No – at middle school we have so many objectives

Evaluation of SAM

N=13

3) Do you feel the alignment model (process) used was appropriate for the purpose of this study?

Y(10) N(2)

3a. If not, what would you suggest is done differently?

- I think step 2 was easier and would have made step 1 easier
- It would have been beneficial to go over worksheet 1 again after worksheet 2. After the second [worksheet] I had a better understanding of the NAEP objectives.

4) Any additional comments?

- The language differences between AZ & NAEP and within NAEP led to interpretation struggles.
- Thanks for the opportunity. Super experience!!

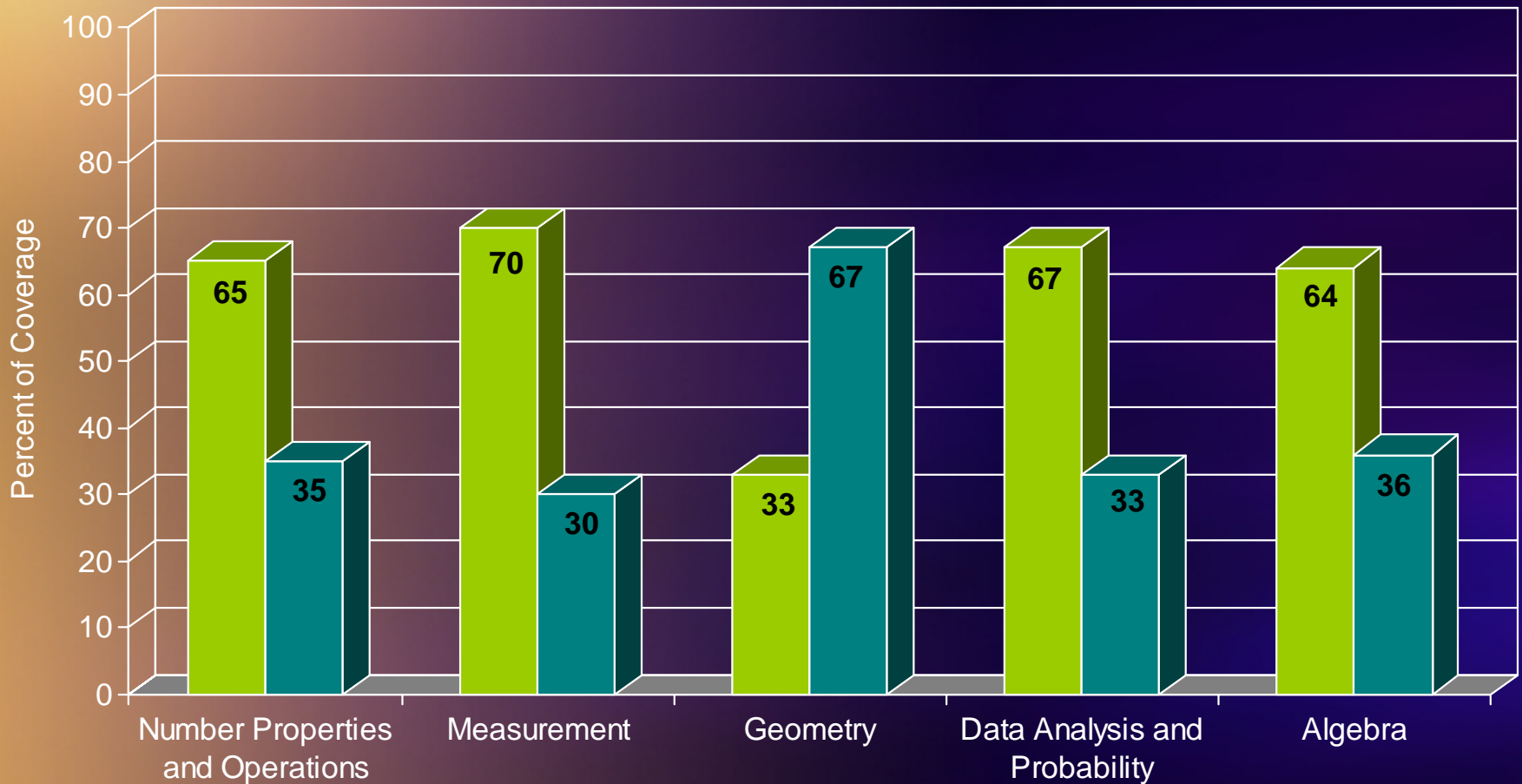
Results

Alignment of AZ Standard and NAEP Framework

Mathematics	Elementary	Intermediate
Arizona Alignment to NAEP	42% No match	36% No match
	40% Partial	52% Partial
	18% Exact	12% Exact
NAEP Alignment to Arizona	25% AZ POs not assessed by NAEP	11% AZ POs not assessed by NAEP

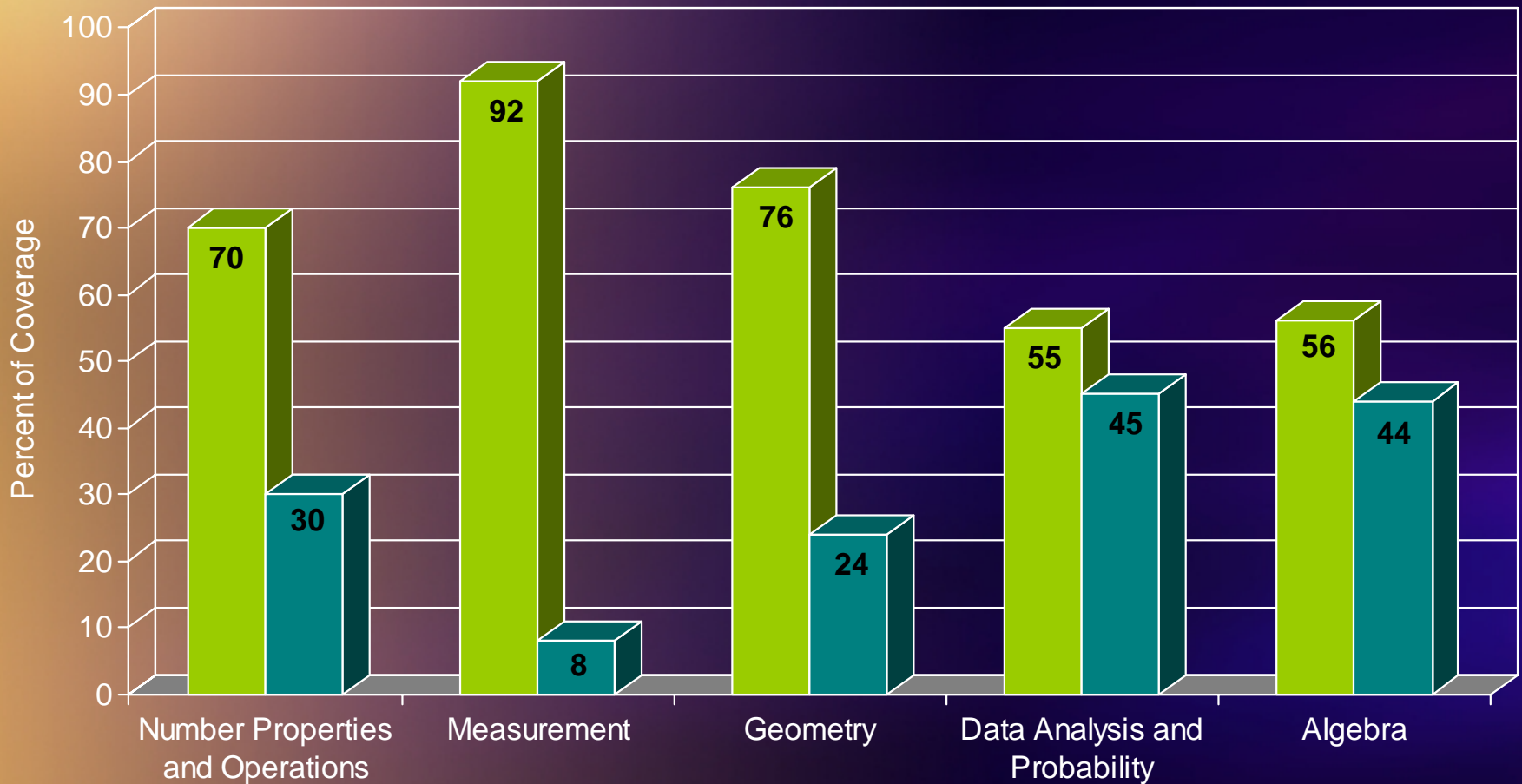
Alignment to NAEP Grade 4 Mathematics

■ Full & Partial Matches ■ No Matches



Alignment to NAEP Grade 8 Mathematics

■ Full & Partial Matches ■ No Matches



- **100% alignment between the 2008 Arizona Mathematics Standard and the 2005 NAEP Mathematics Framework**
- **New AZ Mathematics Standard will be implemented in 2008-2009 and tested in 2009-2010 using the Arizona's Instrument to Measure Standards (AIMS)**

Looking forward to the 2011 NAEP Mathematics results for Arizona

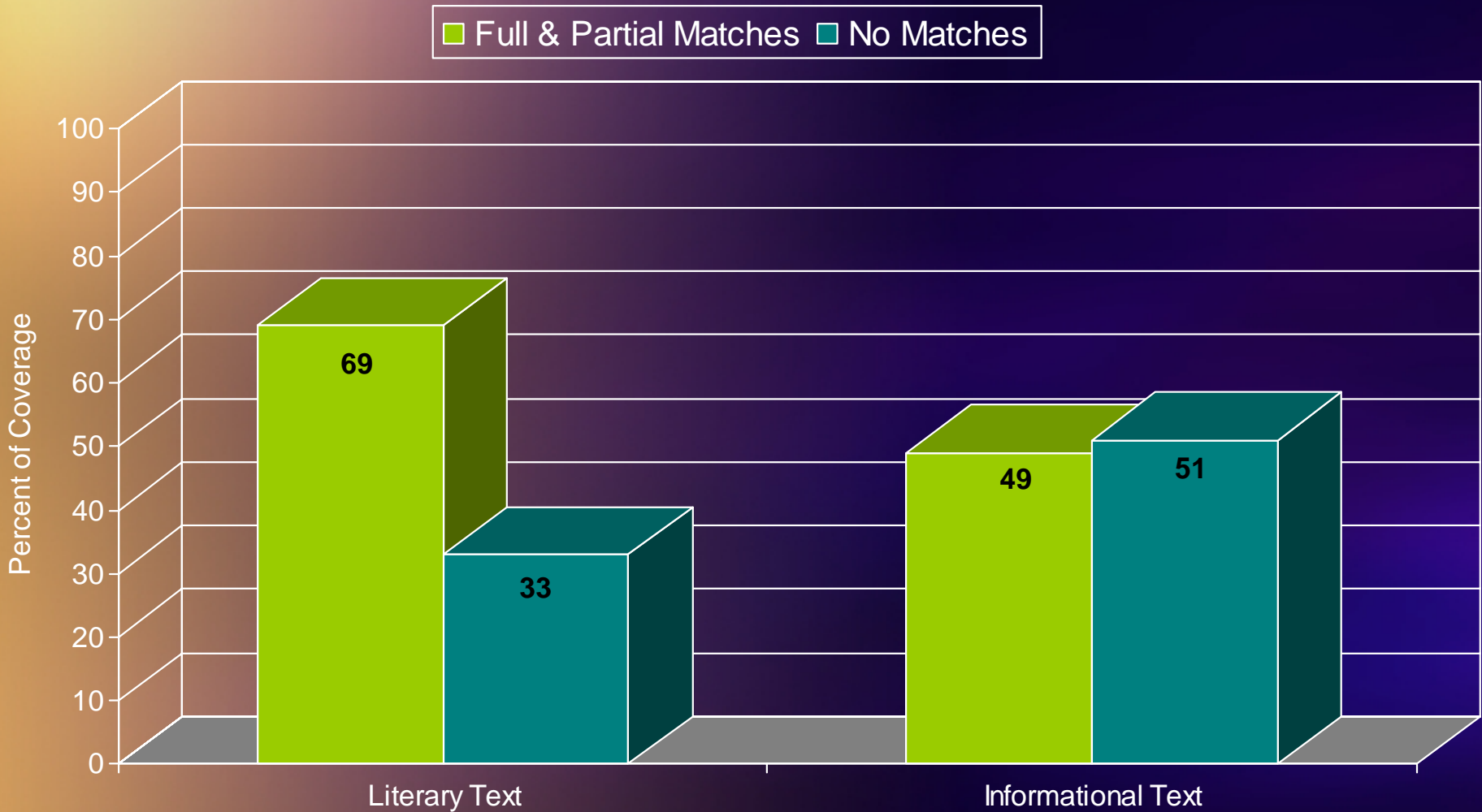
Results

Alignment of AZ Standard to NAEP Framework

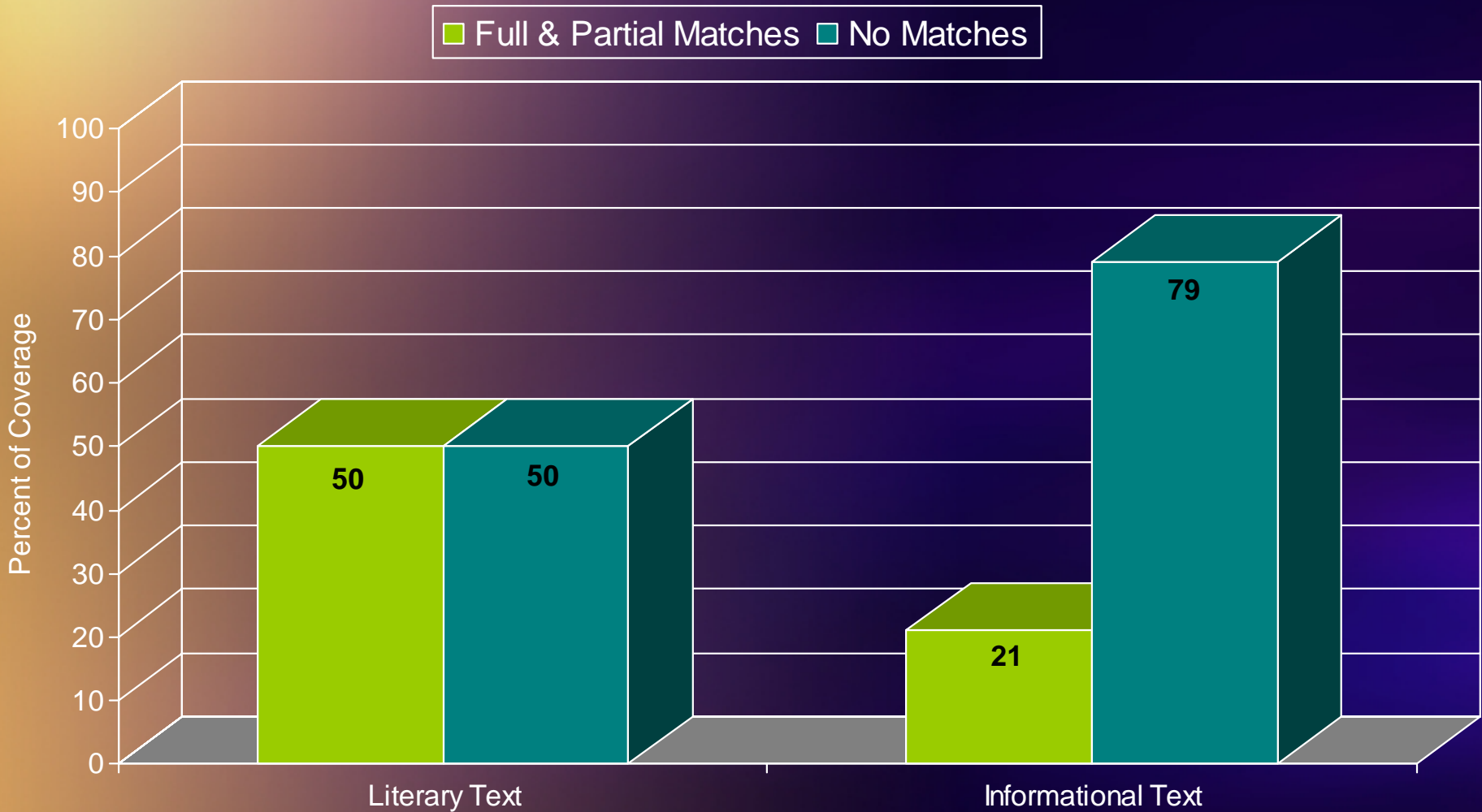
Reading	Elementary	Intermediate
Arizona Alignment to NAEP	43% No match	65% No match
	34% Partial	30% Partial
	23% Exact	5% Exact

NAEP Alignment to Arizona	45% AZ POs not assessed by NAEP	13% AZ POs not assessed by NAEP
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Alignment to NAEP Grade 4 Reading



Alignment to NAEP Grade 8 Reading



Outcome

***Arizona Standards Revision
Committee will meet this fall to
revise the Reading Standard***

Arizona Standard Alignment Model (SAM)

Thank you

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