

Smarter Balanced Assessment Consortium

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Director, Support for Under-represented Students



Council of the Great City Schools
Accessibility and Accommodations Webex
Tuesday, June 25, 2013

Agenda

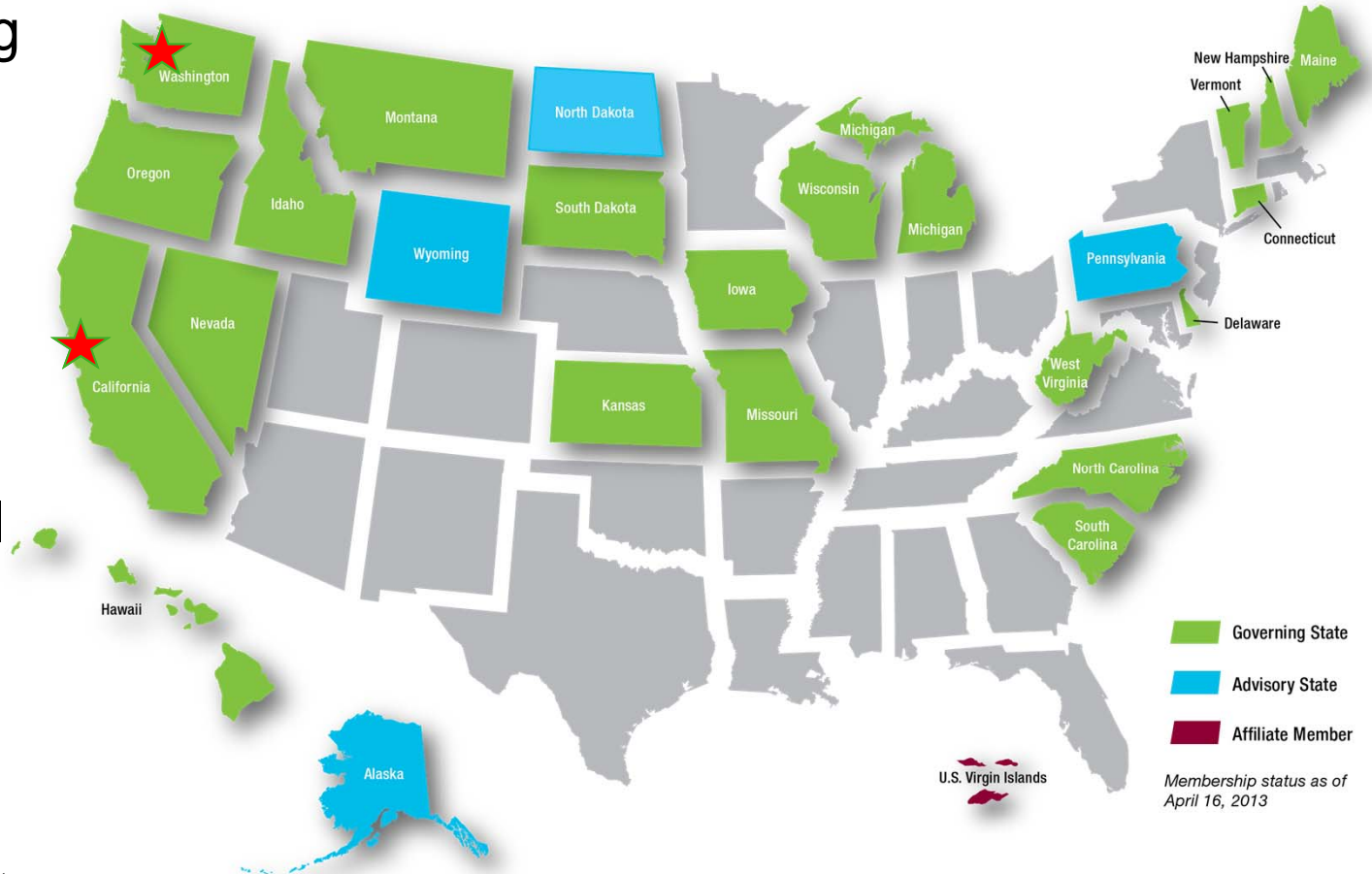
- Smarter Balanced, Overview
- Accessibility and Accommodations, Overview
- Translations
 - Translations background
 - Gathering information for decisions
 - Selecting the best translation option
 - Selecting languages
- Examples

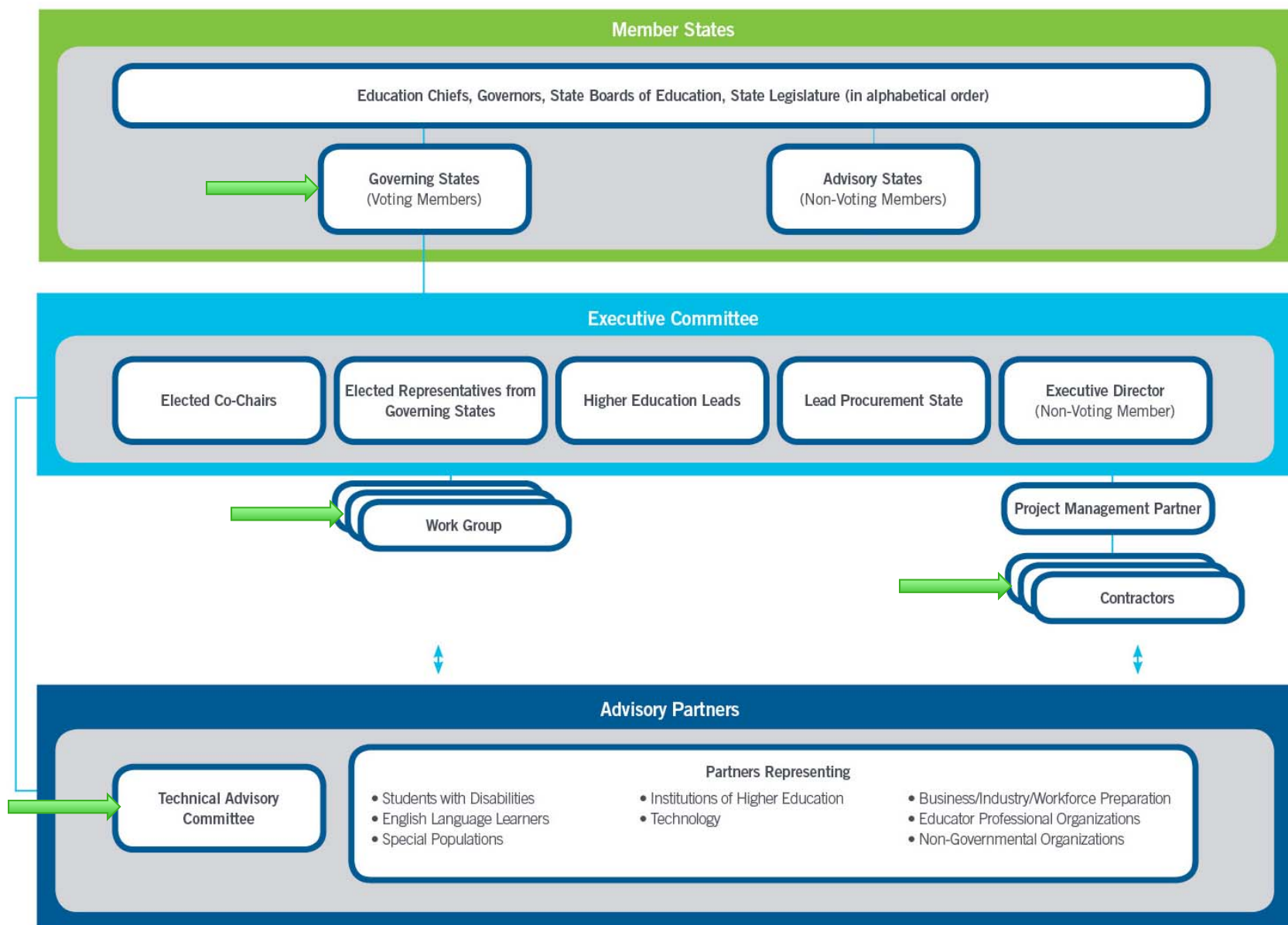
Smarter Balanced Overview



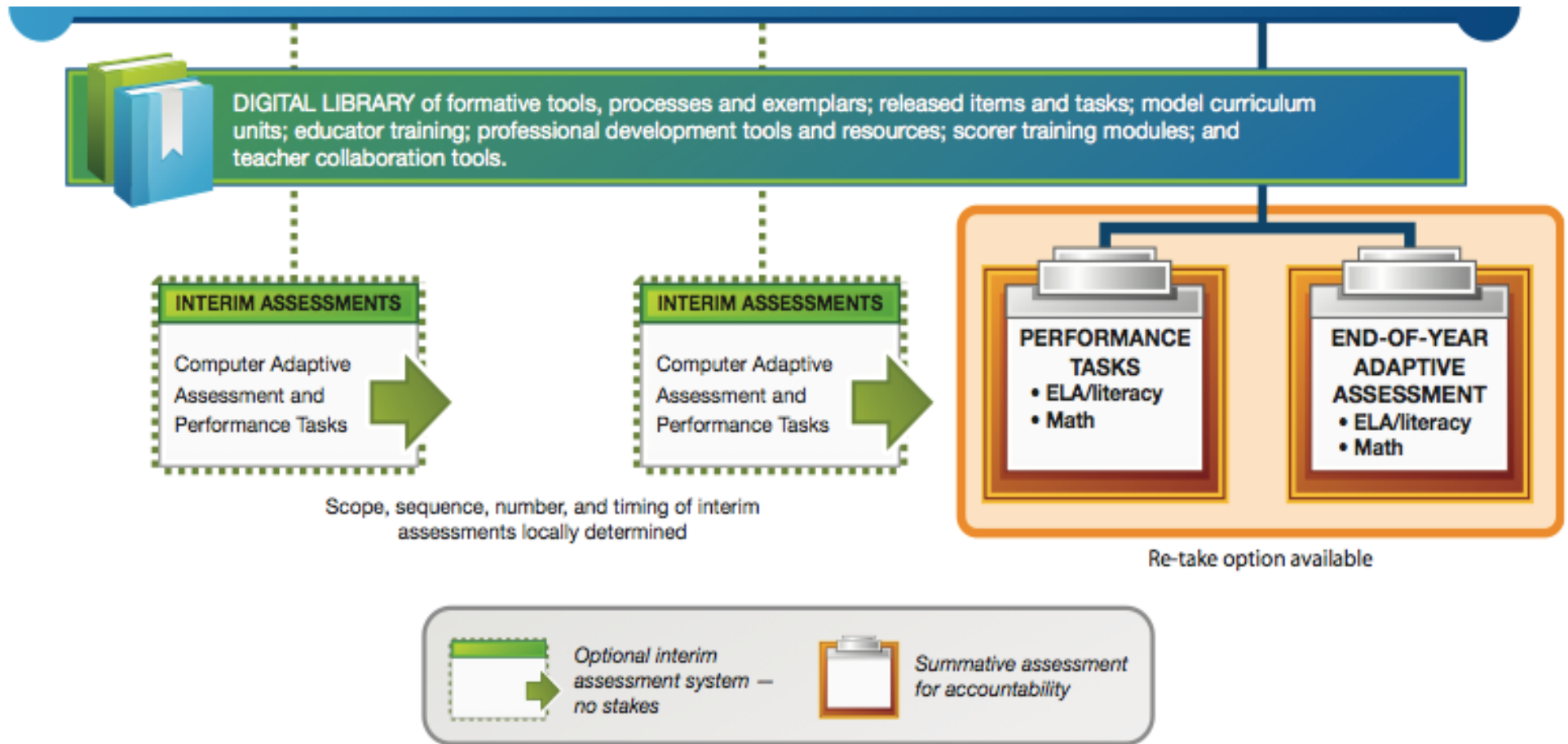
A State-led Assessment Consortium

- 21 Governing States, 4 Advisory States, 1 Affiliate Member
- Washington state is fiscal agent
- WestEd provides project management services





Assessment System - Structure



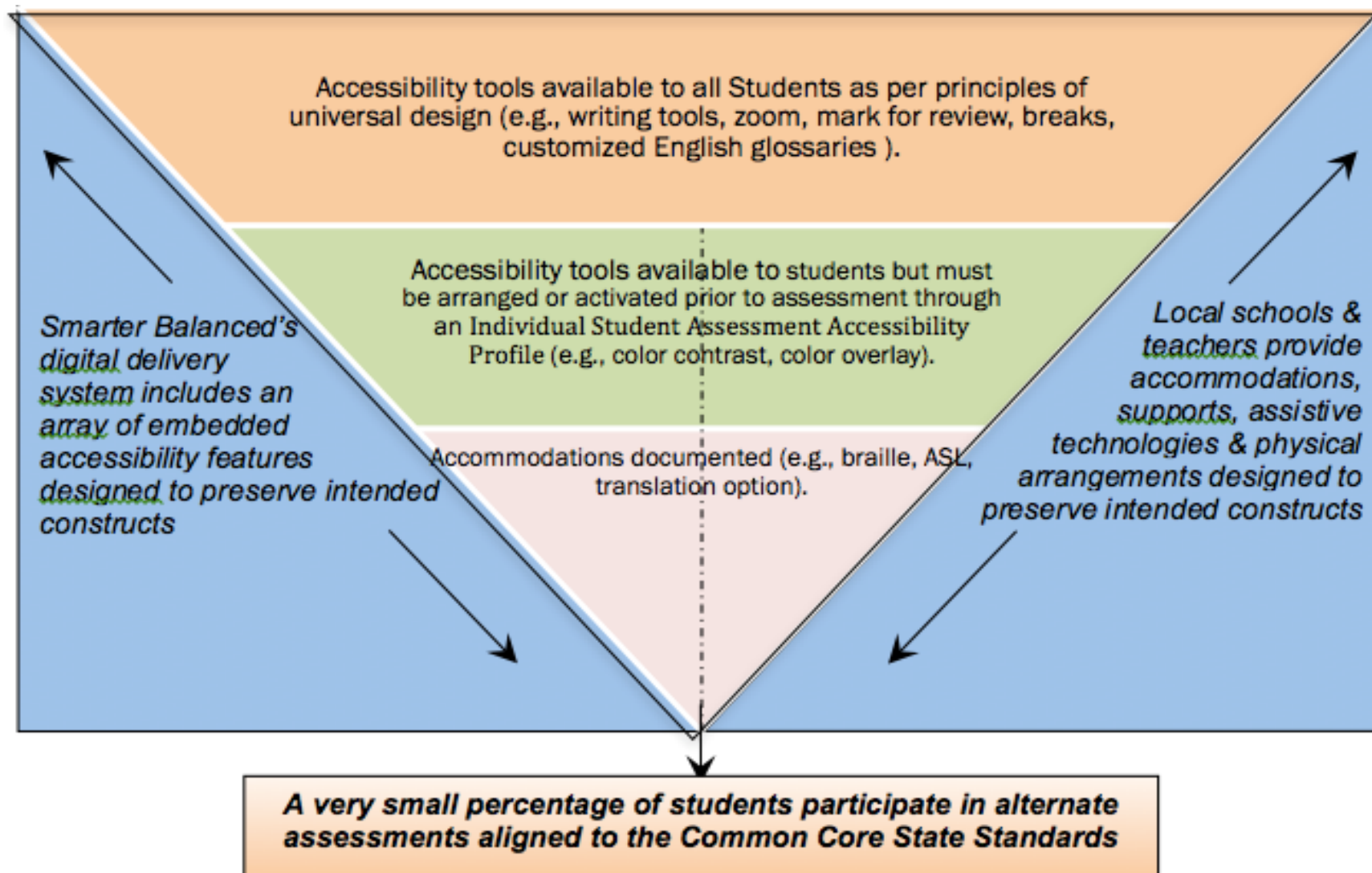
*Summative assessments for grades 3 – 8 and 11; Interim assessments available for grades 3 – 12.

**Time windows may be adjusted based on results from the research agenda and final implementation decisions.

Accessibility and Accommodations Overview



Conceptual Model



Research: Pilot Test

- Cognitive labs
 - Oversampled under-represented populations
 - Research questions directed at SWD
- Small-scale trials
 - Examine AI Scoring for ELLs and SWDs
- Item development
 - Linguistic complexity evaluation
 - Construct-irrelevant language identification
 - Psychometric studies on special forms
 - Read aloud, Braille
 - Translations, glossaries

Research: Pilot Test Student Results

- Gather information about the process of providing accommodations and results of offering them
- Provide feedback to states, work groups, experts
- Incorporate what we learn into field test development work

Language Complexity-example

Descriptors					
TEXT COMPLEXITY		1	2	3	4
	Information Density	An average of one to three verbs, nouns or adjectives per sentence	An average of four to six verbs, nouns or adjectives per sentence	An average of seven to ten verbs, nouns or adjectives per sentence	An average of greater than 10 verbs, nouns or adjectives per sentence
	Passage Length	One to three paragraphs	Four to six paragraphs	Six to ten paragraphs	More than ten paragraphs
LANGUAGE FORM AND STRUCTURE					
	Language Forms	Mostly simple sentences and/or grammatical forms	A few more sophisticated sentences and/or grammatical forms (e.g., compound S, prepositional phrases)	A mix of sophisticated and simple sentences or grammatical forms	A substantial number of more complex sentences and/or grammatical forms (e.g., relative clauses, adverbials, passive voice, reported speech)
VOCABULARY					
	Vocabulary	All high frequency, commonly used vocabulary	Few content-specific,, metaphoric, uncommon meaning, or idiomatic words	A number of content-specific, technical, metaphoric, uncommon meaning and/or idiomatic words or expressions	A large number of content-specific, technical, metaphoric, uncommon meaning' or idiomatic words or expressions

Source: Cook and MacDonald (2012). Presentation for Smarter Balanced Assessment Consortium.

Translations Overview



Translations Background

- Need for linguistic supports
- Smarter Balanced to offer a translation option
- Five languages
 - Spanish
 - American Sign Language
 - Three other languages

Key Questions

- Gathering information
 - State information: Survey and Pilot
 - Experts: Framework and ELL Advisory Committee
- Translation option
 - Address dialects
 - Customized for grade, context
 - Construct-irrelevant terms
- Languages
 - Top 4 consortium-wide (plus ASL)?
 - Common among several states?
 - Individual state languages?

Experts

- **Jamal Abedi**
- **Edward Bosso**
- Donna Christian
- Richard Duran
- Kathy Escamilla
- **James Green**
- **Kenji Hakuta**
- **Okhee Lee**
- **Robert Linqianti**
- Maria Santos
- **Guadalupe Valdes**
- **Guillermo Solano-Flores**
- **Judit Moschkovich**
- **Judith Scott**

Translation Options

Translation Accommodations and Their Likely Ability to Meet Validity and Fairness Dimensions

Translation Accommodation	Validity and Fairness Dimensions			
	Acceptable to Untargeted Test Takers	Sensitivity to Individual Test Takers' Needs	Fidelity of implementation	Usability
Test version in the native language	Low	Low	High	High
Side-by-side bilingual version of the test	High	High	Medium	Medium
Directions translated into native language	Low	Low	High	High
Bilingual glossary	High	High	High	Medium
Test taker responses in native language	Low	Medium	Low	Low
Directions read in the student's native language	Low	Medium	Low	Low

Validity and Effectiveness

Accommodations For ELLs	Research	Validity Decision	Effectiveness Decision	Overall Decision
Dual Language Translation of Test	<p>Only slightly effective when administered with extra time. Lacked validity evidence for non-ELLs under restricted time (Pennock-Roman & Rivera, 2011).</p> <p>The increased length of a dual language translation necessitates generous time limits. Effectiveness was unobserved for this Grade 8 assessment perhaps because of the test length and because the accommodation were offered to students who were neither fluent in Spanish (the language of the accommodation) nor who recently received math instruction in Spanish (Abedi, Courtney, Leon, Kao, & Azzam, 2006).</p> <p>Effective on a grade 8 math assessment in English and Spanish (Duncan et al., 2005).</p> <p>A dual-language test booklet doesn't appear to provide significant improvement in assessment results for students using this accommodation (Sireci et al., 2003).</p>	Unsure / Moderate Evidence	Unsure/ Moderate Evidence	Use/Moderate Risk

Abedi, J. and Ewers, N. <http://www.smarterbalanced.org/wordpress/wp-content/uploads/2012/08/Accommodations-for-under-represented-students.pdf>

Validity and Effectiveness

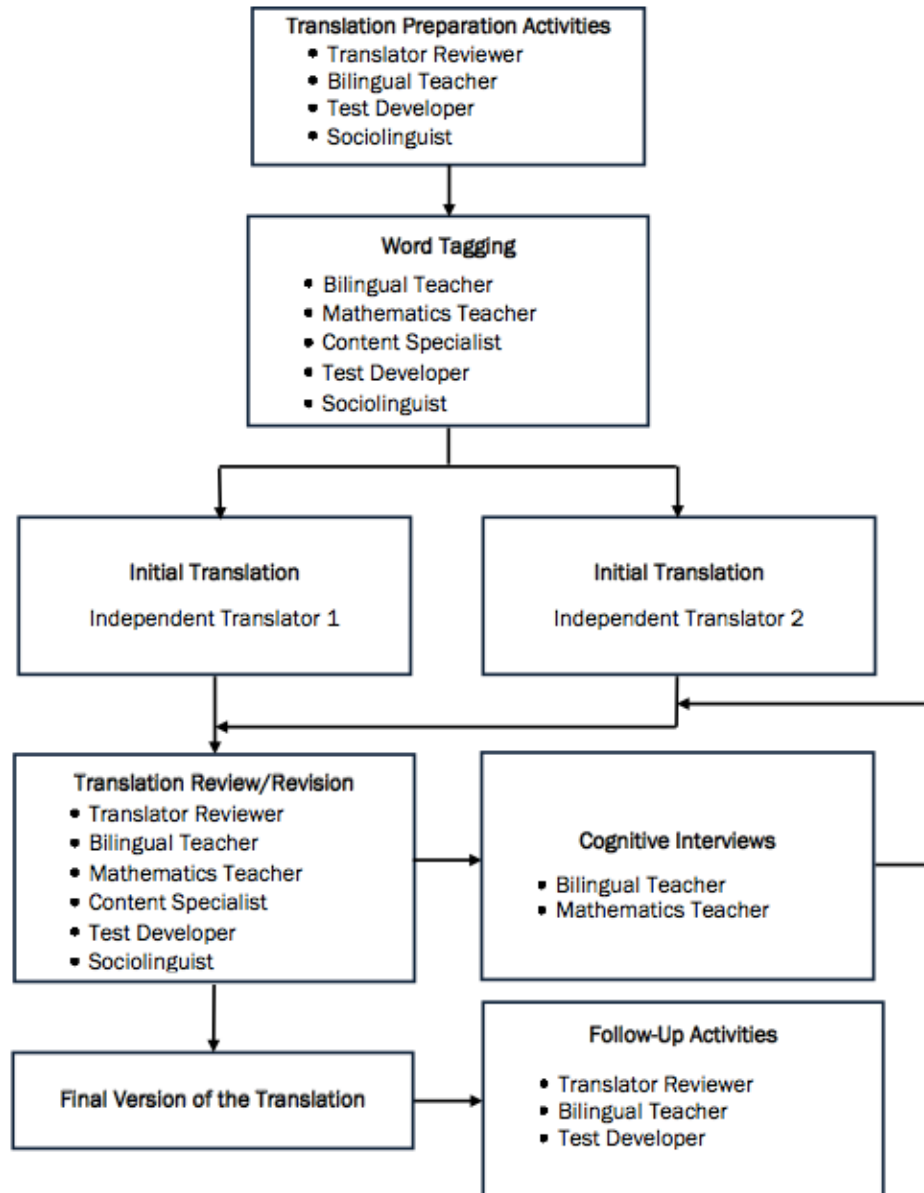
Accommodations For ELLs	Research	Validity Decision	Effectiveness Decision	Overall Decision
Pop-up Glossary (CBT) (content related terms excluded)	<p>A meta-analysis indicated effectiveness when ELL students were not disaggregated by proficiency levels (Pennock-Roman & Rivera, 2011).</p> <p>Effective when selected for students according to language proficiency, time in US school, native country schooling, testing experience, and US school needs, and classroom experiences. Also effective when combined with read aloud of test items when selected for students according to characteristics described above (Kopriva et al., 2007).</p> <p>Accommodations should be selected according to the unique needs of English language students (Shafter Wilner, Rivera, Acosta, 2007).</p> <p>Effective and valid for grade 4 and 8 students on a math assessment (Abedi et al., 2003b).</p>	Use	Use	Use Access (only for English-English)

Abedi, J. and Ewers, N. <http://www.smarterbalanced.org/wordpress/wp-content/uploads/2012/08/Accommodations-for-under-represented-students.pdf>

Validity and Effectiveness

Tool	Validity	Effective- ness	Overall Decision
Dual Language Translation	Unsure	Unsure	Use/Moderate Risk
Pop-up glossary (CBT)	Use	Use	Use

Translation Model 1



Translation Model 2

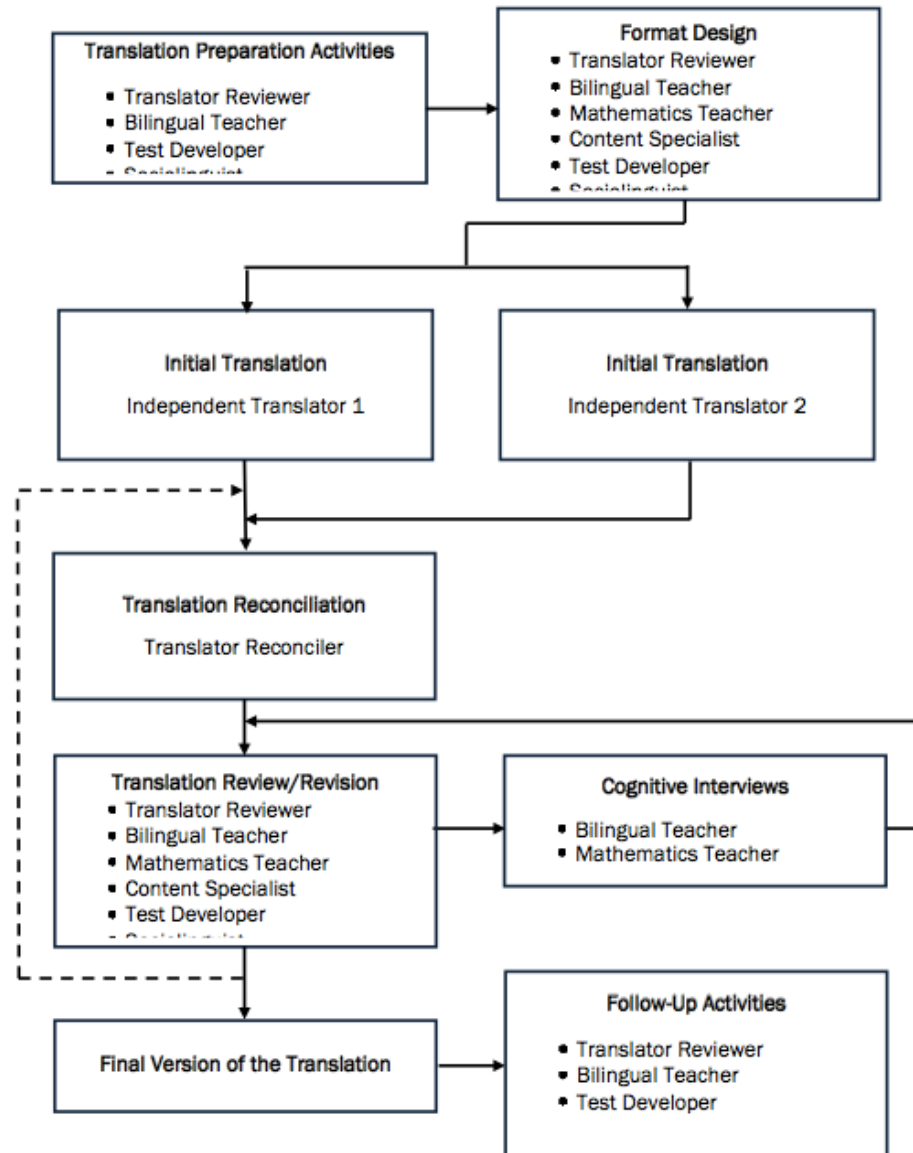


Figure 5. Translation model for the Side-by-Side Bilingual Version of the Test translation accommodations: Process components and professionals involved.

Smarter Balanced State Language Survey

- Number of LEPs
 - By language
 - By grade
- Recently arrived LEPs
 - By language
 - By grade
- Current supports
 - Assessment used for accountability
 - By content area
 - For appropriate grades

Languages for Translation

- High Frequency*
 - Spanish (79%)
 - Vietnamese (2.3%)
 - Arabic (2.0%)
 - Tagalog (1.3%)
 - Cantonese (1.1%)
 - Mandarin (0.9%)
 - Korean (0.8%)
 - Russian (0.8%)
- More than one state
 - Somali (Main and North Dakota)

* Consortium is committed to providing ASL and Spanish

Languages for Translation

- Low Frequency/Highly Concentrated
 - Hawaiian (Hawaii)
 - Ilokano (Hawaii)
 - Dakota (North Dakota)
 - Hutterite (South Dakota)
 - Karen (South Dakota)
 - Lakota (South Dakota)
 - Ojibwa (North Dakota)
 - Yup'ik (Alaska)

Translations: Scope

- Provide qualified experts
- Math translation option for specified languages
 - Items
 - Reporting
 - Supporting materials in formative assessment
- Full human video translation in American Sign Language
 - Math items
 - ELA listening items

Examples



Examples

- https://sbacpt.tds.airast.org/student/login.aspx?c=SBAC_PT
- Sign in
- Grade 3, 7, or 11
- Start G[3] Math
- Word List: 'Spanish Glossary'
- Select

Matching

Go Home

Go Back

Flag Message Board

View-Attributes

View-Reviews

Score

Font Size 14pt TTX Rules General Ed Color Codes None

ENU ESN

GUEST, GUEST (SSID: GUEST 0) Technology Enhanced Items Pages: 1

ZOOM IN

ZOOM OUT

PAUSE

BACK


NEXT

ITEM SCORE

END DEMO

Interview with a Zookeeper

Listen to the presentation. Then, answer the questions.



817

Match the types of zoos on the right to the phrases on the left that describe them.
More than one type of zoo may match with each phrase.

are mainly for entertainment

keep animals and people safe

are used for breeding rare animals

have small cages that are easy to clean

make animals' environments look like nature

New zoos

Old zoos

“Table”

Go Home

Go Back

Flag Message Board

View-Attributes

View-Reviews

Score

Accessibility

Ustim

Item

Reject

Previous

Next

GUEST, GUEST (SSID: GUEST 0) Technology Enhanced Items Pages:

ZOOM IN

ZOOM OUT

PAUSE

BACK


NEXT

ITEM SCORE

END DEMO

Interview with a Zookeeper

Listen to the presentation. Then, answer the questions.




1504

Complete the chart by clicking in the boxes next to the statements that describe new zoos or old zoos.

A statement may be used for both types of zoos.

	New Zoos	Old Zoos
are mainly for entertainment		X
keep animals and people safe	X	
are used for breeding rare animals	X	
have small cages that are easy to clean		X
make animals' environments look like nature	X	

 **Smarter
Balanced**
Assessment Consortium

Table

Go Home

Go Back

Flag Message Board

View-Attributes

View-Reviews

Score

Accessibility

Ustim

Item

Reject

Previous

Next

GUEST, GUEST (SSID: GUEST 0)

Technology Enhanced Items

Pages:

ZOOM IN

ZOOM OUT

PAUSE

BACK

NEXT

ITEM SCORE

END DEMO

1511

The chart shows causes and effects from the text.

Complete the chart by clicking in the boxes to connect the causes with the effects.

Effects	Project Shelter made artificial hermit crab shells.	Hermit crabs moved into small bottles and plastic cups.	More hermit crabs could find better homes.	Fewer snails made shells.
Causes	Seawater changed due to pollution.			
People realized hermit crabs needed new homes.				
There were not enough seashells in the ocean.				
Project Shelter put artificial shells in the wild.				

New Homes for Hermit Crabs

by Bart King

Hermit crabs are nature's recyclers. Like many other crabs, the hermit crab eats waste. By living on sea scraps, hermit crabs help keep oceans and shores clean. Some hermit crabs hide in reefs or live in shallow waters, while others scuttle on the ocean floor. There are also hermit crabs that spend most of their lives ashore.

Unlike other crabs, the hermit crab has a thin outer shell over its soft tail. This makes the hermit crab easy prey for hungry predators. Hermit crabs stay safe by living in old seashells. A hermit crab is picky; it tries on many shells until it finds one that fits just right. The hermit crab backs into its new home and uses its tail and rear legs to grab onto the shell and carry it. If a predator shows up, the crab retreats into its shell and blocks the entrance with its strong claws.

During a lifetime, one hermit crab will inhabit many different seashells. As a hermit crab grows, the crab leaves its home, upgrading to a larger shell. In recent years, however, many hermit crabs have had trouble finding their perfect homes. What is the problem? There are not enough shells to go around!

One reason for the seashell shortage is that ocean water is not as clean as it once was. This has caused chemical changes to seawater. Some sea animals, like snails, are affected by these changes. Now there are fewer snails making shells. People visiting the beach often take shells home as souvenirs. This is another problem. Other people even take shells for their own

Drag and Drop

?

GUEST, GUEST (State-SSID: GUEST -89086)

G6 Math (0 out of 25)

Questions: 1

ZOOM IN

ZOOM OUT

SAVE

PAUSE

BACK

NEXT

1

Drag each expression into the correct column.

Equal to 5.42	Not Equal to 5.42

2.36 + 3.06

2.16 + 3.36

2.71 × 2

1.80 × 3

9.53 - 4.11

8.01 - 2.69

Table

?

GUEST, GUEST (State-SSID: GUEST -89086)

G6 Math (0 out of 25)

Questions: 1

+

+

+

ZOOM IN

-

-

-

ZOOM OUT

o

o

o

SAVE

||

||

||

PAUSE

←

←

←

BACK

→

→

→

NEXT

1

...

o

Drag each expression into the correct column.

Equal to 5.42

NOT Equal to 5.42

Translation

? GUEST, GUEST (State-SSID: GUEST -90522) G11 Math (5 out of 23) Questions: 6

ZOOM IN ZOOM OUT CALCULATOR SAVE PAUSE BACK NEXT

6



A car rental company charges customers an initial charge plus a daily charge to rent cars. The initial charge is \$30 and the daily charge is \$25.

The rental company charged Jacob \$180.

Create an equation that can be used to find the number of days, x , Jacob rented the car.

Click the buttons to create your answer.

← → ↶ ↷ ✕

1	2	3	x									
4	5	6	+	-	×	÷						
7	8	9	<	≤	=	≥	>					
0	.	-	$\frac{\Box}{\Box}$	\Box^\Box	()		$\sqrt{\Box}$	$\sqrt[n]{\Box}$	π	i		
			sin	cos	tan	arcsin	arccos	arctan				

Translation

6

A car rental company charges customers an initial charge p and the daily charge is \$25.

The rental company charged Jacob \$180.

Create an equation that can be used to find the number of

Translation

6

A car rental company charges customers a base fee and the daily charge is \$25.

The rental company charged Jacob \$150.

Create an equation that can be used to find the number of days Jacob rented the car.

Translation

QUEST, GUEST (State-SSID: GUEST -90522) G11 Math (5 out of 23) Questions: 6

ZOOM IN ZOOM OUT CALCULATOR SAVE PAUSE BACK NEXT

6

dailycharge

Spanish Glossary
carga diario

A car rental company charges customers an initial charge to rent cars. The initial charge is \$30 and the daily charge is \$25.

The rental company charged Jacob \$180.

Create an equation that can be used to find the number of days, x , Jacob rented the car.

Click the buttons to create your answer.

← → ↶ ↷ ✕

1	2	3	x
4	5	6	+ - × ÷
7	8	9	< ≤ = ≥ >
0	.	-	$\frac{\Box}{\Box}$ \Box^\Box (\Box) $\sqrt{\Box}$ $\sqrt[\Box]{\Box}$ π i
sin cos tan arcsin arccos arctan			

Embedded

QUEST, QUEST (State-SSID: QUEST -90522) G11 Math (11 out of 23) Questions: 12

ZOOM IN ZOOM OUT CALCULATOR SAVE PAUSE BACK NEXT

12

An equation is shown.

$$y = \frac{3}{\sqrt{x}}$$

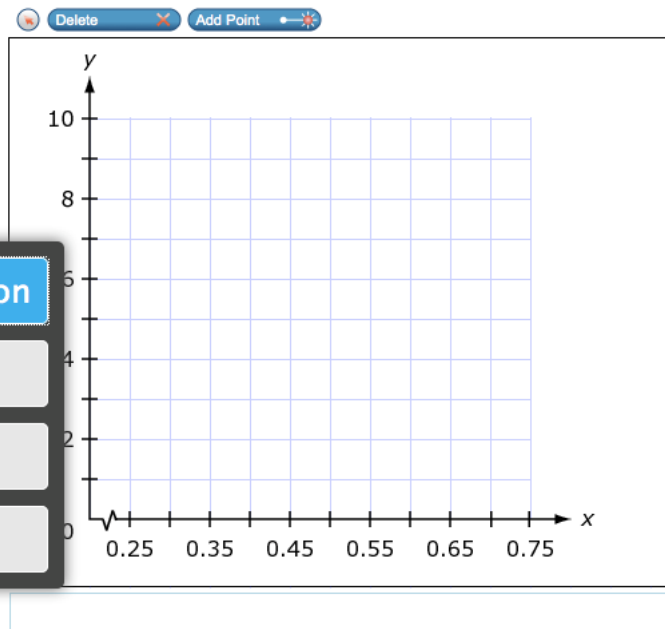
Use the Add Point tool to plot three solutions to the equation on the coordinate grid.

Highlight Selection

Mark for review

Notepad

Tutorial



Embedded

22



The functions $f(x) = 500(1.015)^x$ and $g(x) = 500(1.021)^x$ give the total amounts in two different savings accounts after x years.

How do the graphs of $f(x)$ and $g(x)$ compare?

- ☒ A They have the same y -intercept, but the graph of $f(x)$ rises more quickly over time.
- ☐ B They have the same y -intercept, but the graph of $g(x)$ rises more quickly over time.
- ☐ C The function $f(x)$ has a greater y -intercept and rises more quickly over time.
- ☐ D The function $g(x)$ has a greater y -intercept and rises more quickly over time.

Strikethrough

How do the graphs of $f(x)$ and $g(x)$ compare?

- ☒ A They have the same y -intercept, but the graph of $f(x)$ rises more quickly over time.
- ☐ B They have the same y -intercept, but the graph of $g(x)$ rises more quickly over time.

THANK YOU

