



The Navy Assessment System: Monitor Specific Learning in Real Time

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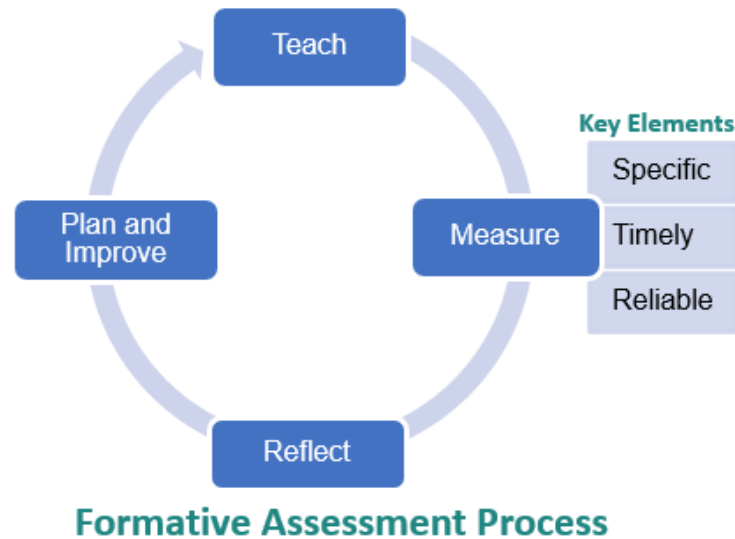
Navvy Assessment System

Assessment *for* learning:

Navvy is a **classroom-embedded** system used on-demand throughout the year to support a formative assessment process: monitor real-time standard-by-standard, on-going learning to inform instructional support for improving learning

- Designed to do so in a valid and reliable way so the actions we take are helpful for student learning

Districts use Navvy as their common district assessment system



Teacher Example Dashboard

- Progress monitor learning standard-by-standard in real-time with validity evidence
- Specific (granular), timely (up to date, real-time), reliable (diagnostic measurement)

First	Last	%	IN.1 (Data)	IN.2	IN.3 (Data)	IN.4 (Data)	IN.5 (Data)	IN.6	IN.8 (Data)	IN.9 (Data)
Alexa	Allende	100.00	✓	🔒	✓	✓	✓	🔒	✓	✓
Bobbie	Brass	50.00	✓	🔒	✓	✗	✗	🔒	✓	✗
Cathy	Clarke	66.67	✗	🔒	✓	✓	✓	🔒	✓	✗
Dontarius	Dawson	50.00	✗	🔒	✗	✓	✓	🔒	✓	✗
Eta	Emankum	83.33	✓	🔒	✓	✓	✓	🔒	✗	✓
Frank	Farr	66.67	✓	🔒	✗	✓	✓	🔒	✗	✓
Georgia	Gray	100.00	✓	🔒	✓	✓	✓	🔒	🔒	🔒
Hector	Hernandez	83.33	✓	🔒	✓	✗	✓	🔒	✓	✓
Irma	Ince	83.33	✓	🔒	✓	✓	✓	🔒	✓	✗
Jackson	Jarris	66.67	✓	🔒	✗	✓	✓	🔒	✗	✓
%			80.00	--	70.00	80.00	90.00	--	66.67	55.56

Teacher Example Dashboard

- Sort columns to identify needs for personalized instruction and meaningful groups for differentiated instruction

First ↑↓	Last ↑↓	% ↑↓	IN.1 (Data) ↑↓	IN.2 ↑↓	IN.3 (Data) ↑↓	IN.4 (Data) ↑↓
Jackson	Jarris	66.67	✓	🔒	✗	✓
Dontarius	Dawson	50.00	✗	🔒	✗	✓
Frank	Farr	66.67	✓	🔒	✗	✓
Bobbie	Brass	50.00	✓	🔒	✓	✗
Cathy	Clarke	66.67	✗	🔒	✓	✓
Eta	Emankum	83.33	✓	🔒	✓	✓
Hector	Hernandez	83.33	✓	🔒	✓	✗
Irma	Ince	83.33	✓	🔒	✓	✓
Alexa	Allende	100.00	✓	🔒	✓	✓
Georgia	Gray	100.00	✓	🔒	✓	✓
%			80.00	--	70.00	80.00

Type of Feedback Aligned with Type of Psychometric Model Aligned with Theory of Action

- Standards-level feedback
 - Standards-level psychometrics are needed to give standards-level feedback
 - Primary Result: Competency Diagnosis
 - Competency or non-competency of the standard
- Actionable Feedback
 - The action: Focus learning supports on standards for which students need support
 - Create student groupings for personalized instruction based on competency diagnoses

Student Dashboard

- Students collect micro-certs for learning standards
- Our goal is to help students have a healthy learning/growth mindset by improving:
 - Goal-setting and goal-reaching
 - Ownership and agency of learning
 - Motivation for learning

Progress - Dontarius Dawson



Math Grade 6
Miller | Grade 6 Math - A
English Grade 6
Oster | Grade 6 English - A

Math

English

Reading Informational 8 Total Badges | 3/6 Badges Earned | 50% Competency



IN.1



IN.2



IN.3



IN.4



IN.5



IN.6



IN.8



IN.9

Reading Literary 7 Total Badges | 0/0 Badges Earned | --% Competency



RL.1



RL.2



RL.3



RL.4



RL.5



RL.6



RL.9

Writing 3 Total Badges | 0/0 Badges Earned | --% Competency



W.1



W.2



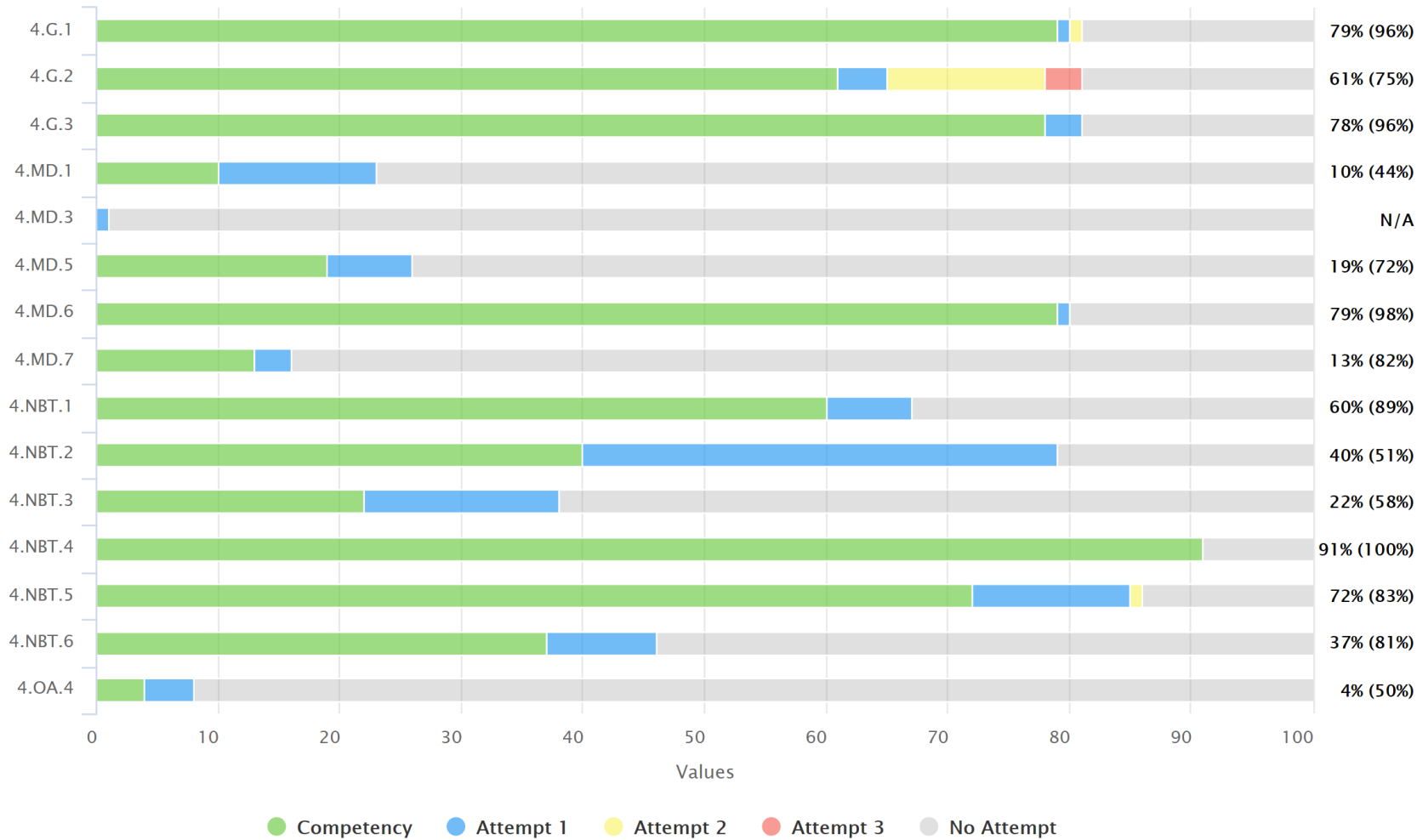
W.3

Student Learning Map

- Track competencies of standards
 - Within grade
 - Across grades
- Unfinished learning (sometimes called “gaps” in learning) is being monitored in real time as part of everyday assessment practice using Navvy
 - We have disruptions to learning (sometimes called “learning loss”) pinpointed, as part of regular assessment practice with Navvy

3	4	5	6	7	8	Alg	Geo
✓ 3.NBT.1	🔒 4.MD.8	🔒 5.NBT.2	6.G.2	7.NS.1	8.F.3	A.REI.4	G.GMD.4
✓ 3.NBT.2	✓ 4.NBT.1	✓ 5.NBT.3	6.G.3	7.NS.2	8.F.4	A.REI.6	G.GPE.1
✓ 3.NBT.3	✓ 4.NBT.2	✓ 5.NBT.4	6.G.4	7.NS.3	8.F.5	A.SSE.3	G.GPE.4
✓ 3.NF.1	●●● 4.NBT.3	✓ 5.NBT.5	6.NS.1	7.RP.1	8.G.1	F.BF.2-E	G.GPE.5
●○○ 3.NF.2	✓ 4.NBT.4	✓ 5.NBT.6	6.NS.2	7.RP.2	8.G.2	F.BF.2-L	G.GPE.7
●○○ 3.NF.3	✓ 4.NBT.5	🔒 5.NBT.7	6.NS.3	7.RP.3	8.G.3	F.IF.1	G.SRT.2
✓ 3.OA.1	✓ 4.NBT.6	🔒 5.NF.1	6.NS.4	7.SP.1	8.G.4	F.IF.2-L&E	G.SRT.4
✓ 3.OA.2	✓ 4.NF.1	🔒 5.NF.2	6.NS.5	7.SP.2	8.G.5	F.IF.2-Q	G.SRT.5
✓ 3.OA.3	🔒 4.NF.2	🔒 5.NF.3	6.NS.6	7.SP.3	8.G.6	F.IF.4-E	G.SRT.7
✓ 3.OA.4	✓ 4.NF.3	🔒 5.NF.4	6.NS.7	7.SP.4	8.G.7	F.IF.4-L	G.SRT.8
✓ 3.OA.5	●○○ 4.NF.4	🔒 5.NF.5	6.NS.8	7.SP.5	8.G.8	F.IF.4-Q	

School or District Level Reporting



Which 3 standards in 4th grade math are most challenging for our students to learn?

- What instructional supports or PL can we provide for teachers on those standards?
- Which schools/teachers are performing well on these standards? Can they provide PL for other teachers?

Doubling as an Accountability System: Technical Consideration Discussion

Navy Consortium Members

- Committed to assessing competencies at the standards level and focusing local accountability on gaining competencies of the standards
 - Syncs with competency-based education or learning model
 - Flexibility allows personalized learning and pacing
- Aim for state accountability to be aligned with this model: aggregate, or summarize, standards-level competencies to create accountability metrics without additional testing

Aggregation: Creating Annual Summative Determinations

- Creating annual summative determinations federally required
- Navy standards-level competency results will form the basis for categorizing students into Achievement Levels

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Eta	Emankum	83.33	✓	🔒	✓	✓	✓	🔒	✗	✓
Frank	Farr	66.67	✓	🔒	✗	✓	✓	🔒	✗	✓
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%			80.00	--	70.00	80.00	90.00	--	66.67	55.56

Accountability Technical Consideration: Aggregation

Technical consideration: How to best aggregate Navy standards-level competency results to produce annual summative determinations for accountability?

- Overarching consideration for the task at hand
- Decision Point
- Different promising ways to aggregate
 - Let's look at 4 approaches
- Additional considerations

Accountability Technical Considerations: Aggregation

Technical consideration: How to best aggregate Navy standards-level competency results to produce annual summative determinations?

- Overarching Consideration:
- Navy is a new way of thinking about assessment for accountability
 - The profile itself is arguably the best way to communicate to students, student families, and educators about what students know, understand, and can do
- Dimensionality assumption is different than traditional through-year or end-of-year measures
 - Navy is a **multidimensional** assessment system
 - Students have competency of some standards and not others
 - Traditional systems are **unidimensional** systems
 - Students are proficient on “the standards” as a whole or not

Accountability Technical Consideration: Aggregation

Technical consideration: How to best aggregate Navy standards-level competency results to produce annual summative determinations?

- **Decision Point:** Will the attempt number be a factor in competency status that contributes to achievement level?
 - **Decision:** No; the students' current competency status for each standard will be used for the aggregate result
 - **Rationale:**
 - Reflects what has been learned to date
 - Does not penalize a student for completing a formative assessment earlier in the during learning process

Accountability Technical Consideration

Technical consideration: How to best aggregate Navy standards-level competency results to produce annual summative determinations?

- Approach 1
 - Multivariate competency profile
 - Which patterns of standards competency correspond to each achievement level?

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Cathy	Clarke	66.67	✗	🔒	✓	✓	✓	🔒	✓	✗
Dontarius	Dawson	50.00	✗	🔒	✗	✓	✓	🔒	✓	✗
Eta	Emankum	83.33	✓	🔒	✓	✓	✓	🔒	✗	✓
Frank	Farr	66.67	✓	🔒	✗	✓	✓	🔒	✗	✓

- Consideration: A wide variety of patterns to reach a given achievement level
- Opportunity: Throughout the year, set clear goals to attain a given level (i.e., I still need to learn Standard K and M to reach Proficiency)

Accountability Technical Consideration

Technical consideration: How to best aggregate Navy standards-level competency results to produce annual summative determinations?

- Approach 2
 - Aggregate numerical result
 - Learning what percentage of the standards corresponds to each achievement level?

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Cathy	Clarke	66.67	✗	🔒	✓	✓	✓	🔒	✓	✗
Dontarius	Dawson	50.00	✗	🔒	✗	✓	✓	🔒	✓	✗
Eta	Emankum	83.33	✓	🔒	✓	✓	✓	🔒	✗	✓
Frank	Farr	66.67	✓	🔒	✗	✓	✓	🔒	✗	✓

- Opportunity: Throughout the year, set clear goals to attain a given level (i.e., I still need to learn 2 standards reach Proficiency)
- Consideration: Should some standards have higher weights than others?
 - A combination of which and how many

Accountability Technical Consideration

Technical consideration: How to best aggregate Navy standards-level competency results to produce annual summative determinations?

- Approach 3: Blends
 - Non-compensatory Combination
 - Some specific standards required for each level **and** some minimum percentage reached
 - Compensatory Combination
 - Some specific standards required for each level **or** some minimum percentage reached

Accountability Technical Considerations

Technical consideration: How to best aggregate Navy standards-level competency results to produce annual summative determinations?

- **Opportunity: Coordinate educator expertise with empirical data**
 - Leverage understanding the relationship among standards to inform decision-making (i.e., are some standards pre-requisite for learning others?)
 - What do patterns of competency reveal about learning patterns?
 - Utilize the current period of completing Navy assessments alongside state assessment to understand the impact data resulting from different aggregation techniques
 - Impact on the concordance with current state assessment achievement levels

Achievement Level Descriptions

- Multidimensional Navy approach:
 - Proficiency on increasing number of standards
- Unidimensional current state approach:
 - Increasing degree of proficiency on the standards as a whole

State's ALDs

- Unidimensional framework
- Increasing degrees of proficiency on standards as a whole
- Expected increasing degree of proficiency on each standard
- A Proficient Learner is expected to have met the standard on each standard

ALD	Standard	Beginning Learner	Developing Learner	Proficient Learner	Distinguished Learner
Policy		Beginning Learners do not yet demonstrate proficiency in the knowledge and skills necessary at this grade level/course of learning, as specified in Georgia's content standards. The students need substantial academic support to be prepared for the next grade level or course and to be on track for <i>college and career readiness</i> .	Developing Learners demonstrate partial proficiency in the knowledge and skills necessary at this grade level/course of learning, as specified in Georgia's content standards. The students need additional academic support to ensure success in the next grade level or course and to be on track for <i>college and career readiness</i> .	Proficient Learners demonstrate proficiency in the knowledge and skills necessary at this grade level/course of learning, as specified in Georgia's content standards. The students are prepared for the next grade level or course and are on track for <i>college and career readiness</i> .	Distinguished Learners demonstrate advanced proficiency in the knowledge and skills necessary at this grade level/course of learning, as specified in Georgia's content standards. The students are well prepared for the next grade level or course and are well prepared for <i>college and career readiness</i> .
Range		A student who achieves at the Beginning Learner level tends to read and comprehend informational texts and literature that do not meet the demands of grade level texts that would signal this student is on track for college and career readiness and requires substantial instructional support to improve reading skills.	A student who achieves at the Developing Learner level tends to read and comprehend informational texts and literature of low-to-moderate complexity and sometimes struggle to meet the demands of grade level texts that would signal this student is on track for college and career readiness and requires some instructional support to enhance reading skills.	A student who achieves at the Proficient Learner level reads and comprehends informational texts and literature of moderate-to-high complexity and is meeting the demands of grade level texts that signal this student is on track for college and career readiness.	A student who achieves at the Distinguished Learner level reads and comprehends informational texts and literature of high complexity and is meeting and often exceeding the demands of grade level texts that clearly signal this student is on track for college and career readiness.
	6.RL.1	Refers to the texts to support analyses of what texts say explicitly.	Identifies textual evidence to support analyses of what texts say explicitly.	Cites textual evidence to support analyses of what texts say explicitly as well as inferences drawn from the texts.	Cites strong and thorough textual evidence to support in-depth analyses of what texts say explicitly and elaborates on inferences drawn from the texts.
	6.RL.2	Identifies themes or central ideas of texts and provides simple summaries of texts.	Describes themes or central ideas of texts and provides basic summaries of texts distinct from personal opinions or judgments .	Determines themes and/or central ideas of texts and how they are conveyed through particular details and provides summaries of texts distinct	Analyzes themes or central ideas and how they are conveyed through particular details and provides comprehensive summaries of

State's ALDs

- Unidimensional framework
- A Proficient Learner is expected to have met the standard on each standard
- This column is the language of the standard

				from personal opinions or judgments.	texts distinct from personal opinions or judgments.
	6.RL.3	Identifies basic plots of particular stories or dramas and refers to characters.	Explains how plots of particular stories or dramas unfold and how main characters change.	Describes how plots of particular stories or dramas unfold in a series of episodes as well as how characters respond or change as plots move toward resolutions.	Analyzes how the responses and changes of complex characters contribute to the plots of stories and dramas as they move toward resolutions.
	6.RL.4	Uses apparent textual evidence (e.g., context clues, embedded definitions) to determine meanings of words and phrases as they are used in texts.	Uses apparent textual evidence (e.g., context clues, embedded definitions) to determine meanings, including basic figurative and connotative meanings, of words and phrases as they are used in texts and identifies the impact of word choices on meaning and tone.	Determines meanings, including figurative and connotative meanings, of words and phrases as they are used in texts and analyzes the impact of specific word choices on meaning and tone.	Determines meanings, including figurative and connotative meanings, of words and phrases as they are used in texts and analyzes and critiques the impact of specific word choices on meaning and tone (e.g., how the language evokes a sense of time and place, how it sets a formal or informal tone).
	6.RL.5	Identifies particular sentences, chapters, scenes, or stanzas that contribute to the overall structure of texts.	Describes how particular sentences, chapters, scenes, or stanzas contribute to the overall structure of texts.	Analyzes how particular sentences, chapters, scenes, or stanzas fit into the overall structure of texts and contribute to the development of themes, settings, or plots.	Analyzes how sophisticated sentences, chapters, scenes, or stanzas affect the overall structure of texts and contribute to the development of themes, settings, or plots.
	6.RL.6	Identifies the narrators' or speakers' points of view in texts.	Describes the narrators' or speakers' points of view in texts.	Explains how authors develop the narrators' or speakers' points of view in texts.	Analyzes how an author develops the narrators' or speakers' points of view in texts, citing evidence from the texts to support the analyses.
	6.RL.7	Compares the experience of reading stories, dramas, or poems to listening to or viewing audio, video, or live versions of the texts.	Compares and contrasts the experience of reading stories, dramas, or poems to listening to or viewing audio, video, or live versions of the texts.	Compares and contrasts the experience of reading stories, dramas, or poems to listening to or viewing audio, video, or live versions of the texts, including contrasting what he or she "sees" and "hears" when reading texts to what is	Compares and contrasts the experience of reading stories, dramas, or poems to listening to or viewing audio, video, or live versions of the texts, including analyzing what he or she "sees" and "hears" when reading the text compared to what is perceived when

Accountability Technical Consideration: Aggregation

Technical consideration: How to best aggregate Navy standards-level competency results to produce annual summative determinations?

- Additional consideration: Are all attempts required?
 - Decision: No
 - Tension: Readiness and relevance vs Maximum tries
 - Attempts relevant to personalized learning
 - Maximum opportunities to show what has been learned

Accountability Technical Consideration: Aggregation

Technical consideration: How to best aggregate Navy standards-level competency results to produce annual summative determinations?

- Additional consideration in a more flexible competency-based education approach: Which standards are required?
 - Tension with personalized learning and pacing vs grade level expectation

N A V V Y
E D U C A T I O N

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