

Promoting Accurate Score Report Interpretation

Meagan Karvonen, Russell Swinburne Romine,
Amy Clark, Jennifer Brussow & Neal Kingston

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Previous and Current Research Phases

- 2013-14: Needs assessment
- 2014-15: Prototype evaluation
- 2016: Preliminary interview results - interpretations and intended uses
- 2017: focus on misconceptions and misinterpretations
 - Understanding interpretive pitfalls
 - Developing and testing a tutorial to improve interpretation

Dynamic Learning Maps Alternate Assessments

- Based on large, fine-grained learning maps
- Alternate content standards (Essential Elements, EEs) are layered in the maps and grouped into Conceptual Areas
- Each EE has testlets at 5 associated linkage levels
- Cognitive diagnostic modeling
 - Mastery/non-mastery of each linkage level
 - Total linkage levels mastered is used to determine overall performance level

Performance Profile: Overall Results

Students in Grade 4 English Language Arts are expected to be administered assessments covering 45 skills for 9 Essential Elements. Noelle mastered 17 skills during the year.

Overall, Noelle's mastery of English Language Arts fell into the second of four performance categories: **approaching the target**. The specific skills Noelle has and has not mastered can be found in Noelle's Learning Profile.



EMERGING:

The student demonstrates **emerging** understanding of and ability to apply content knowledge and skills represented by the Essential Elements.

APPROACHING THE TARGET:

The student's understanding of and ability to apply targeted content knowledge and skills represented by the Essential Elements is **approaching the target**.

AT TARGET:

The student's understanding of and ability to apply content knowledge and skills represented by the Essential Elements is **at target**.

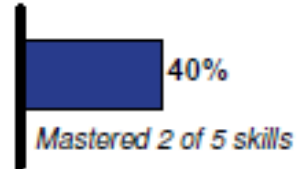
ADVANCED:

The student demonstrates **advanced** understanding of and ability to apply targeted content knowledge and skills represented by the Essential Elements.

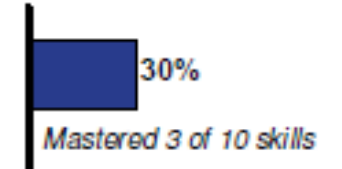
Performance Profile: Conceptual Areas

Conceptual Area

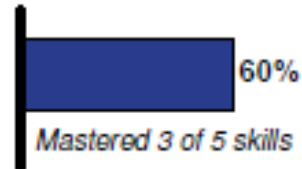
Determine critical elements of text



Construct understandings of text



Integrate ideas and information from text



Use writing to communicate



Performance Profile: Mastery Statements

Determine critical elements of text

Noelle showed these skills during the assessment:


- Determine similar or different
- Name or identify objects in pictures

Construct understandings of text

Noelle showed these skills during the assessment:

- Identify familiar people, objects, places, or events
- Understand object names
- Identify character actions in a familiar story

Learning Profile

Area	Essential Element	Level				
		1	2	3	4 (Target) 	5
ELA.C1.2	ELA.RL.7.4	Understand words for absent objects and people	Identify definition of words	Identify word meaning of multiple meaning words using context clues	Determine the meaning of idioms and figures of speech	Determine the connotative meaning of words and phrases
ELA.C1.2	ELA.RI.7.1	Differentiate between text and pictures	Identify illustrations for a familiar text	Identify words related to explicit information	Identify explicit information and the need to make implicit associations	Recognize the difference between direct statements and inferences
ELA.C1.2	ELA.RI.7.2	Match a picture representation with a real object	Identify concrete details in an informational text	Identify the implicit main idea in an informational text	Identify multiple main ideas in an informational text	Summarize a familiar informative text
ELA.C1.2	ELA.RI.7.4	Identify descriptive features and words	Recognize the literal meaning of a word or phrase	Determine the meaning of phrases using context	Determine how word choice persuades or informs	Determine the connotative meaning of words and phrases
ELA.C1.2	ELA.RI.7.6	Identify familiar people	Identify concrete details in an informational text	Identify the author's point of view	Identify the author's point of view and reason for writing the text	Identify examples of the author's point of view
ELA.C1.2	ELA.RI.7.8	Anticipate the consequences of actions	Recognize the main idea of a paragraph	Understand how parts of the text affect overall text structure	Understand the reason for the structure of claims	Describe the structure of informational texts
ELA.C1.3	ELA.RL.7.3	Identify descriptive features and words	Relate character feelings to actions	Identify a character's response to a challenge	Understand the relationship between story elements	Associate a character's actions with their causes

Study #1

- 8 individual interviews, 2 paired interviews
- Teachers from two states
 - range of grade levels, length of experience with AA-AAS
- Protocol
 - 2 contrasting reports
 - Initial interpretation
 - Explanation to parents
 - Uses for instruction (especially paired interviews)

Uses of Report Sections

- Performance Profile narrative: characterize the student's overall performance
- Conceptual Areas (CAs): summarize general strengths and weaknesses
- Mastery list: explain specific skills to parents
- Learning Profile: talk about next steps for instruction

- Frequent use of graphics and learning profile; less use of narrative sections, key

Example Misinterpretations

- Percentile vs. percent
- Percent of skills mastered vs. accuracy, percent of repeated trials
 - Imposing 80% goal
- “Percent proficient” where proficient is 100% of skills
- Performance level labels vs. linkage level labels
- Linkage levels tested vs. linkage levels mastered

Study #2

- Evaluate video tutorial designed to promote accurate interpretations
- Broad survey recruitment message to 14 states
- Survey available late February/early March
- 93 teachers started the study
 - 6 states
 - 62% had seen a DLM score report before

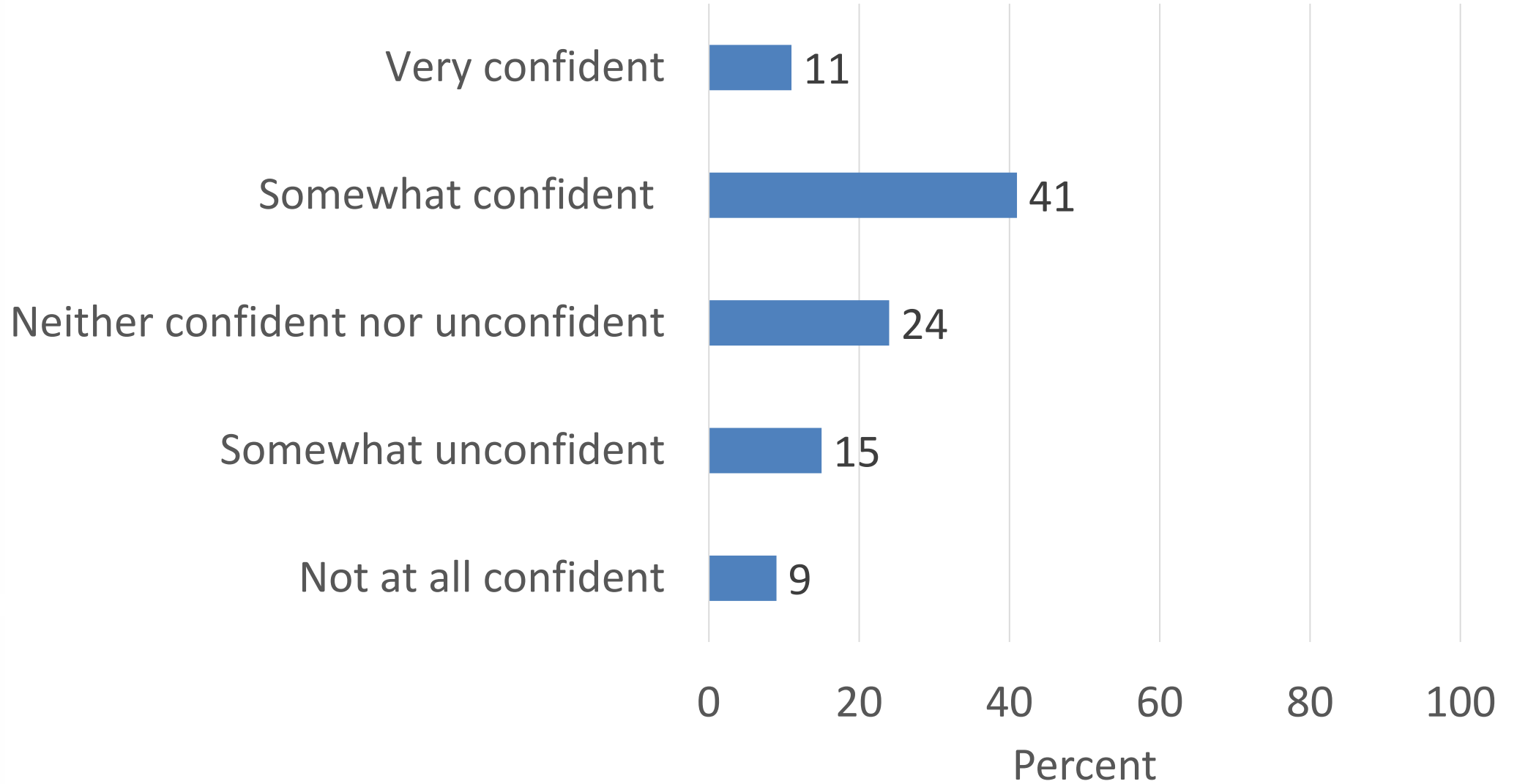
Module Design

- Pre-rating of confidence in score report interpretation
 - “Pre-test” items
 - Uses of DLM score reports, not interpretation
 - Video
 - 20 min year-end model, 30 min integrated model
 - Post evaluation questions
 - Post-test knowledge
- Opportunity to retake for 80% correct

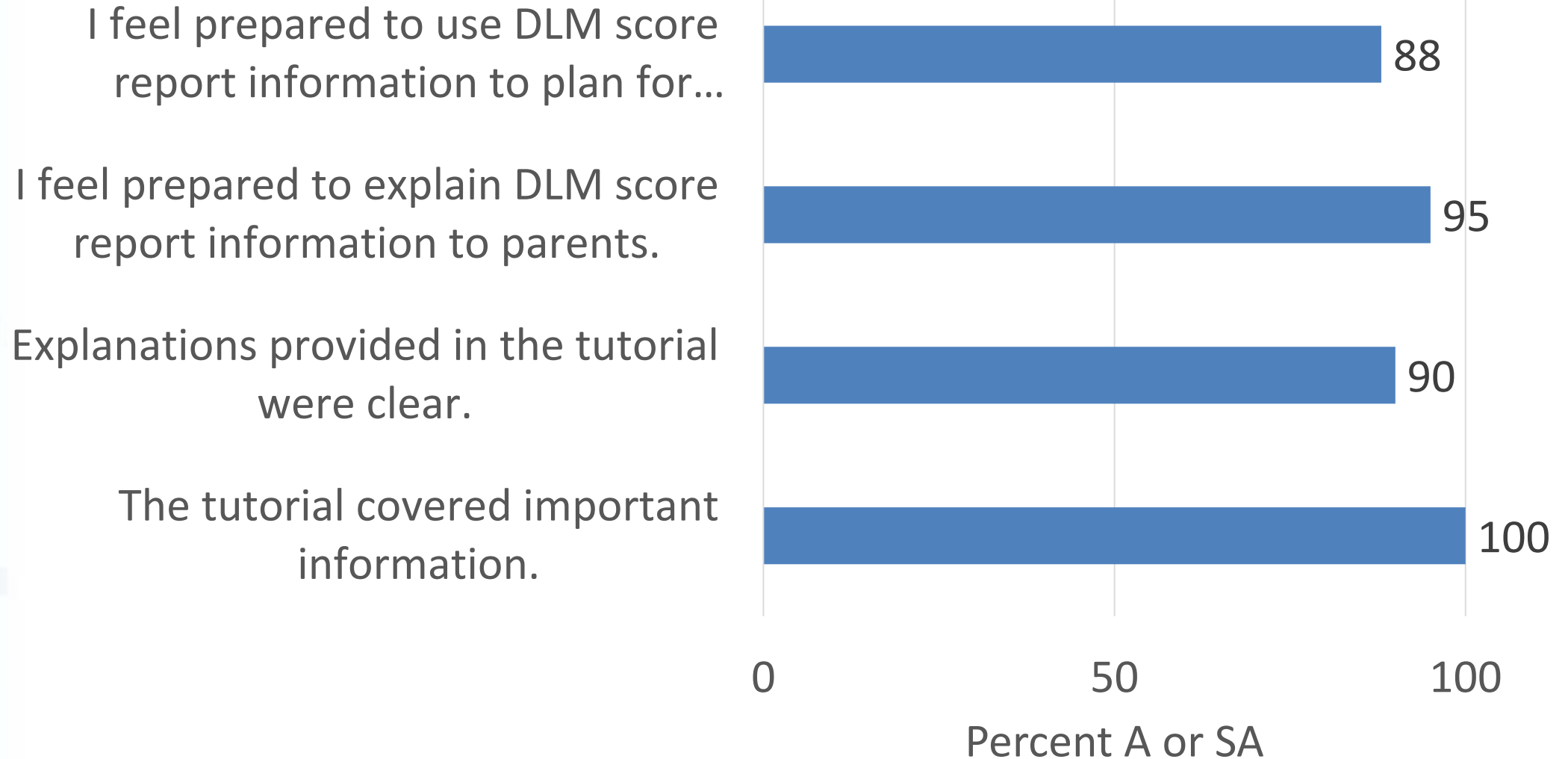
Participation

	N Teachers - Integrated States	Year-End States
Started	67	26
Completed video	46	18
Completed evaluation	40	15
Completed post-test	36	14
Retook	5	7

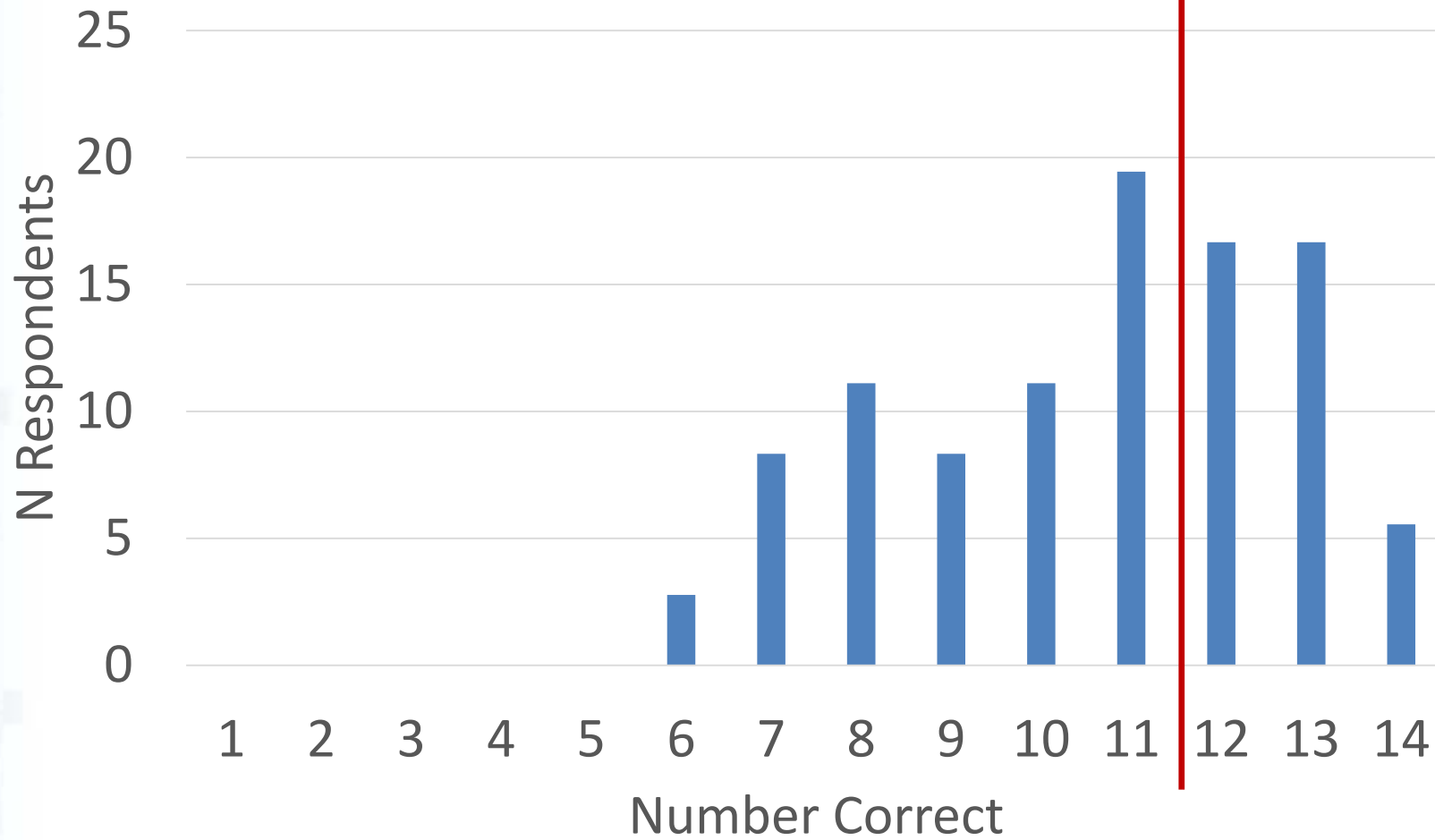
Confidence in Interpretation Prior to Tutorial



Evaluation Questions (n = 40)



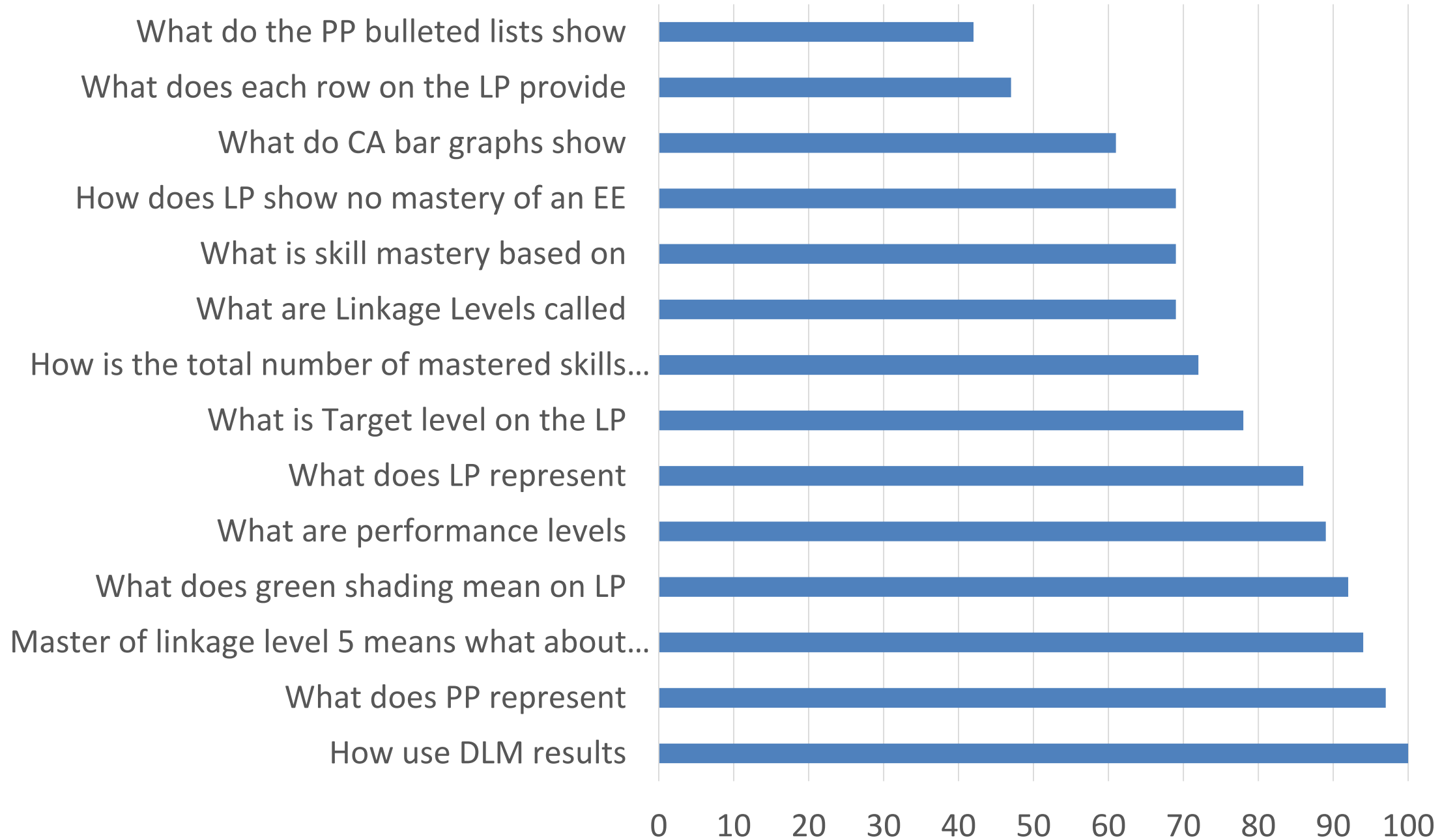
Post Test Total Score



n = 36

- 39% of all completers passed
- 41% of pre neutral to unconfident passed

Percent Correct Responses Per Item



Potential Misconceptions

What is skill mastery based on?

- *The number of trials and percentage of correct results*
- 11%
- Absolute confidence that a student has mastered the skill - 3%
- The best estimates of mastery based on the student's responses to assessment items - 69%*
- *Evidence that the student will show skill mastery in other situations, such as during instruction* - 17%

Implications for Practice

- Change in shading on learning profile
- Revisions to tutorial
 - Design/package like DLM instructional PD modules
 - Multiple tutorials (shorter topics)
 - Strengthen message about skill mastery uncertainty
- Additional resources
 - Provide sample score report with the video
 - Provide sample instructional plan based on the report contents

THANK YOU