

Standard Setting

What Is It And How
Does It Impact
Students?

**Texas Assessment Conference
November 2023**

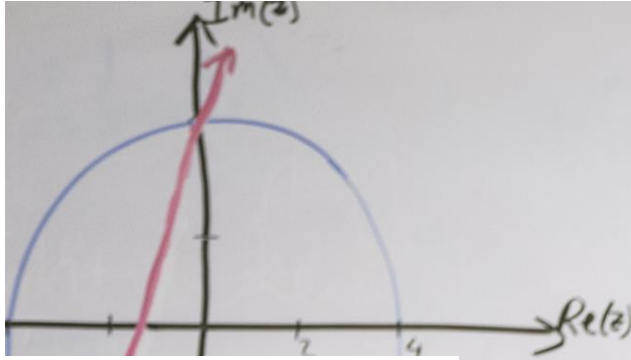


Time for a Pop Quiz!

TX Assessment Conference -
Standard Setting Session



What Is Standard Setting?



$$\begin{aligned}
 U(z) &= (z, 4i; 4, -4) \\
 &= \frac{z-4}{z+4} \cdot \frac{4i+4}{4i-4} \\
 &= \frac{(i+1)z - 4i - 4}{(i-1)z + 4i - 4}
 \end{aligned}$$

$$\begin{aligned}
 S(z) &= (z, 4i; -1+i, -2-2i) \\
 &= \frac{z+1-i}{z+2+2i} \cdot \frac{4i+1-i}{4i-2-2i} \\
 &= \frac{2z+2-i}{z+(2-i)}
 \end{aligned}$$

Möbius Transformation
represented by the matrix

$$\begin{pmatrix} -4i-4 \\ 4i-4 \end{pmatrix}$$

$$S = \begin{pmatrix} \dots \\ \dots \end{pmatrix}$$

To obtain our sought transformation $T(z)$,

$$B^{-1}A = \begin{pmatrix} 2+2i & -2+2i \\ -1 & 2 \end{pmatrix}$$

$$\begin{aligned}
 &= \begin{pmatrix} 2i-2+2+2i-2 \\ -i-1+2i-2 \end{pmatrix} \\
 &= \begin{pmatrix} 0 & -32i \\ i-3 & 12i-4 \end{pmatrix}
 \end{aligned}$$

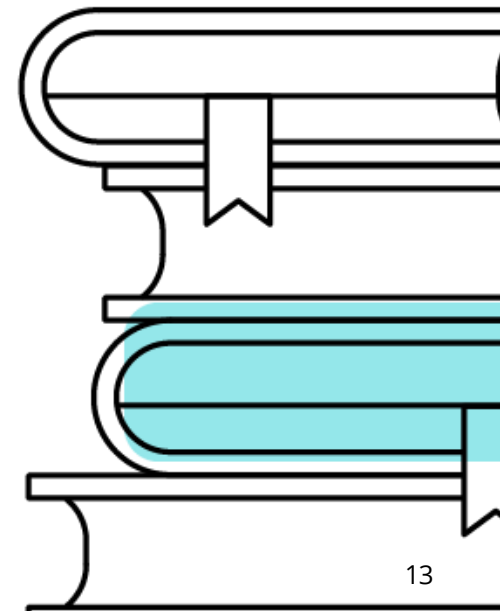
This accurately represents

$$T(z) = \frac{-32i}{(i-3)z + 12i-4}$$

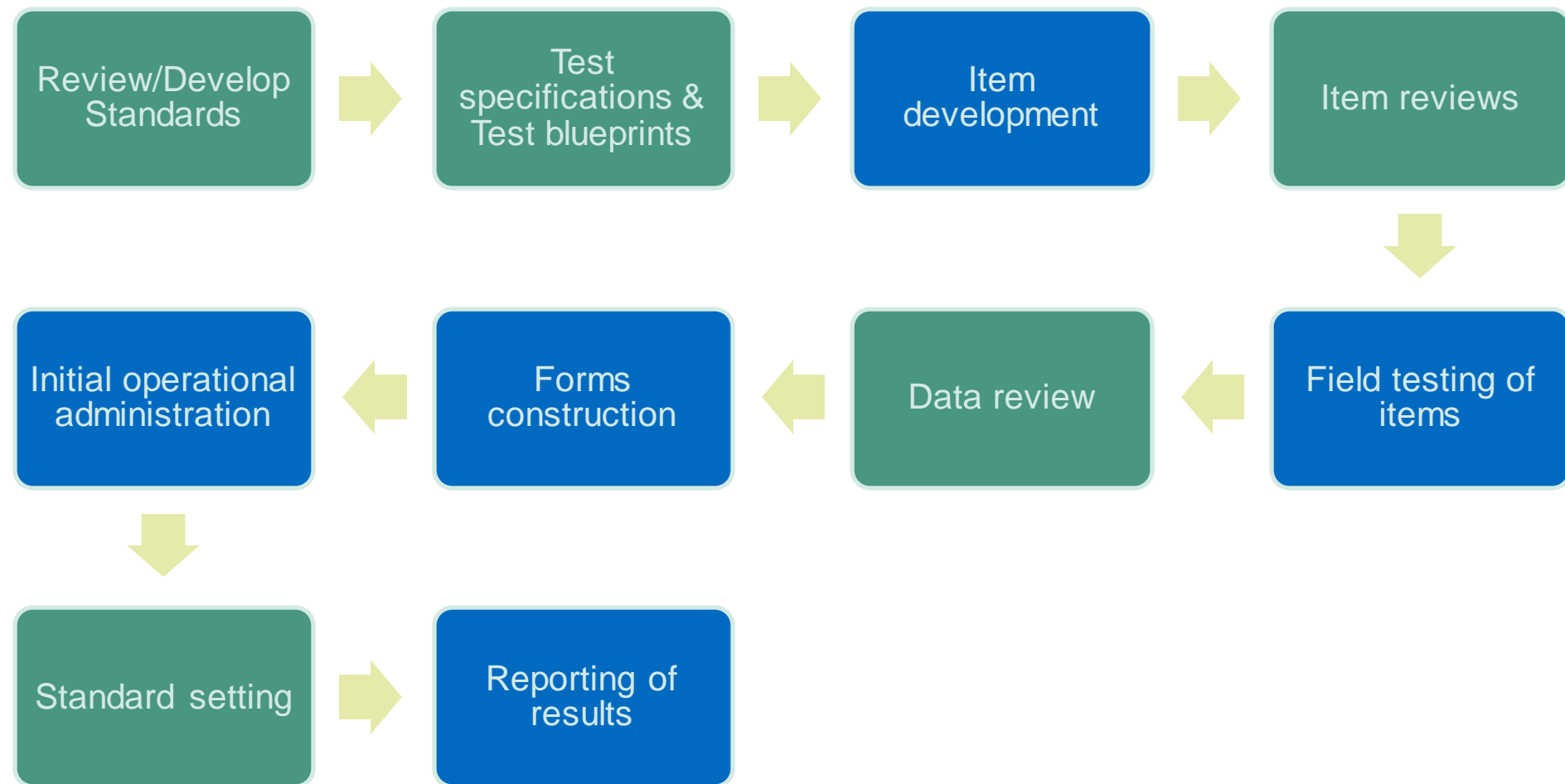
What is standard setting?

“A process of establishing one or more cut scores on the test scale which divides the distribution of examinees’ test performances into two or more categories.”

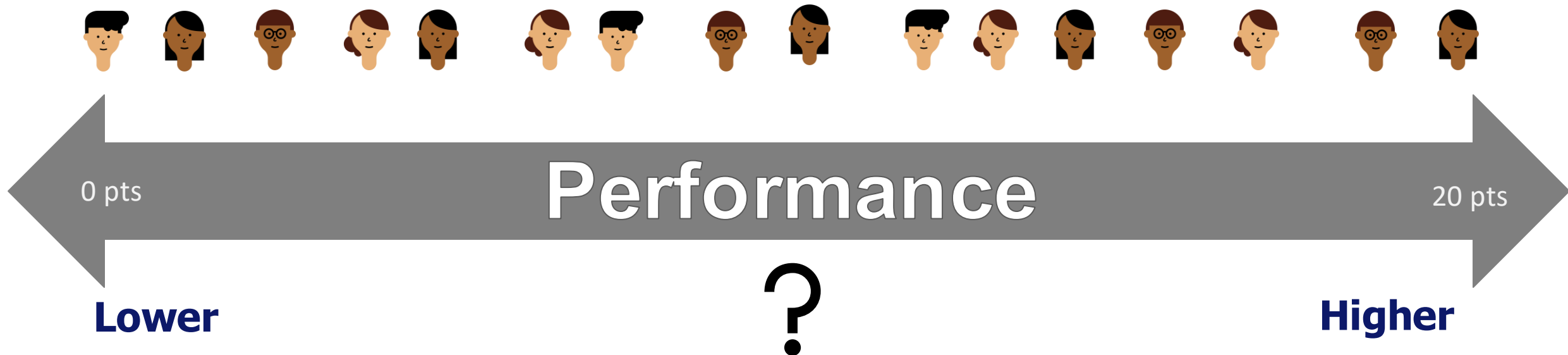
Standard Setting by Greg Cizek



Assessment Development



What is standard setting?



Standards and Performance Levels

Performance Levels are used to create classifications of examinee performance on the assessment that is useful for interpreting performance.

Student Performance		
Level 1 Minimal Fan	Level 2 Everyday Fan	Level 3 Super Fan

STAAR Performance Levels

The performance levels for the State of Texas are...

Student Performance			
Level 1 Below	Level 2 Approaching	Level 3 Meets	Level 4 Masters

What do the Performance Levels Mean?

To define the standards for each performance level, meaning needs to be provided to the performance levels.

Policy definitions:

provide general expectations of student performance for each performance level that is not grade- or subject-specific.

Performance level descriptors (PLDs):

Outline the specific expectations of student performance for each performance level specific for each subject and grade. The PLDs communicate a progression of knowledge and skills across performance levels within a subject.

Policy Definitions

Level 3
Super Fan

The examinee demonstrates an **exceptional** knowledge of Marvel trivia.

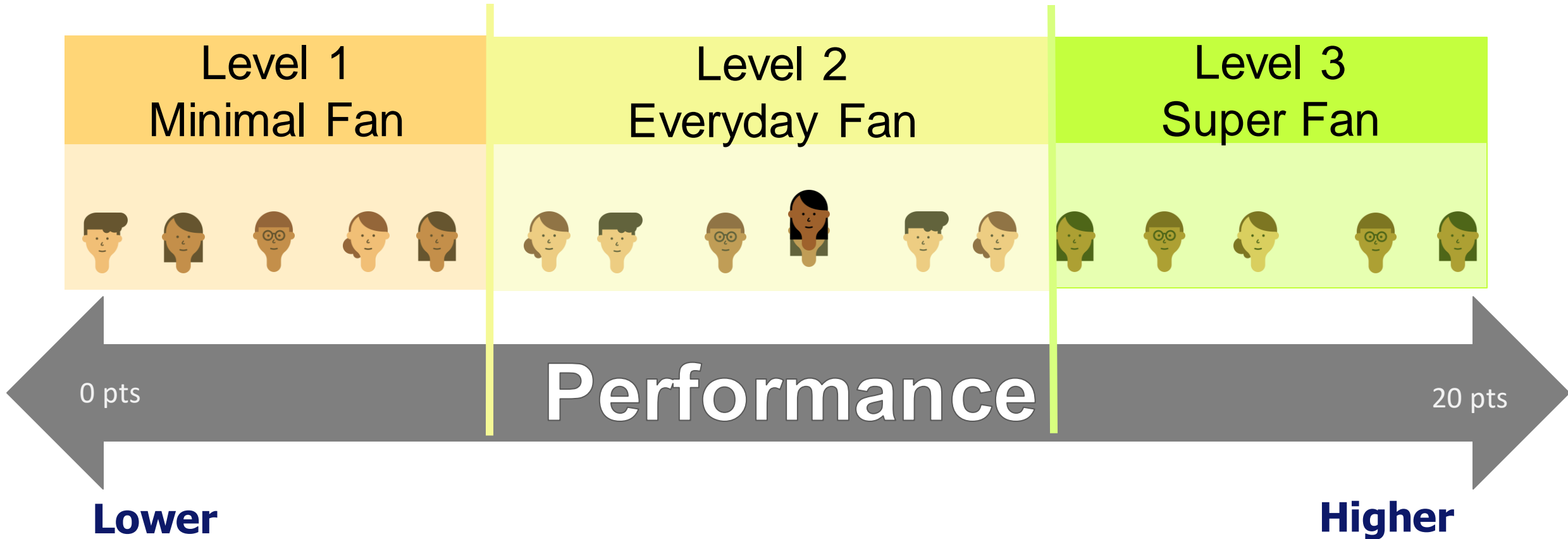
Level 2
Everyday Fan

The examinee demonstrates a **satisfactory** knowledge of Marvel trivia.

Level 1
Minimal Fan

The examinee demonstrates a **minimal** knowledge of Marvel trivia.

What is Standard Setting?

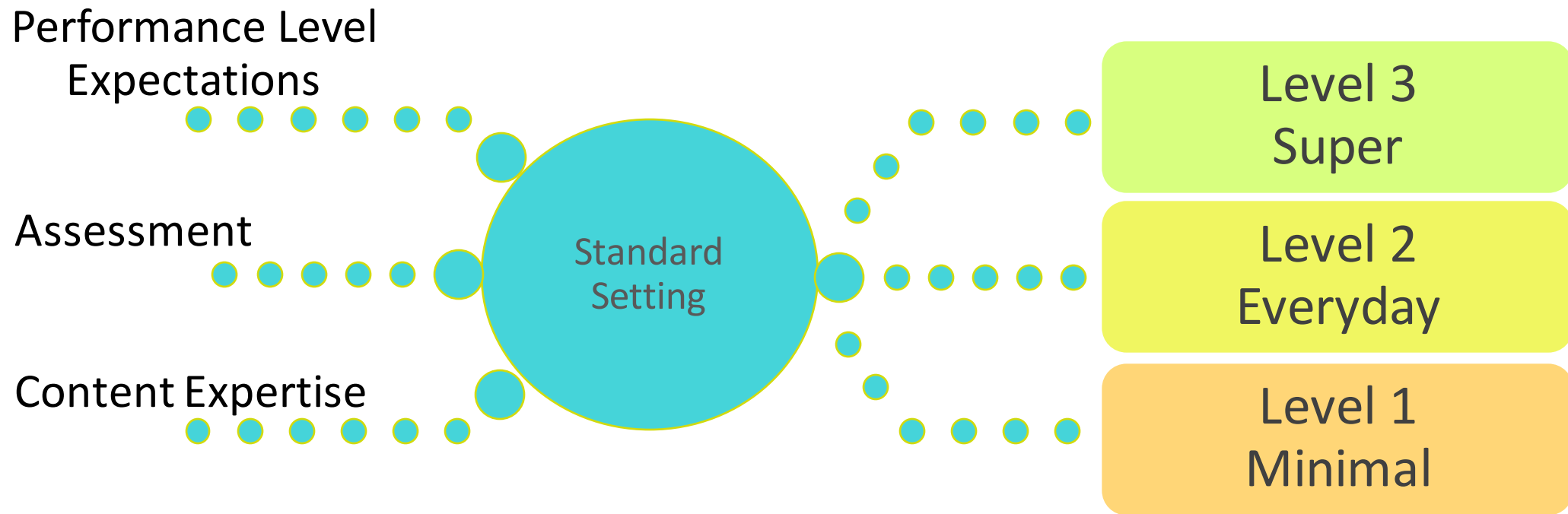


Standard Setting Process

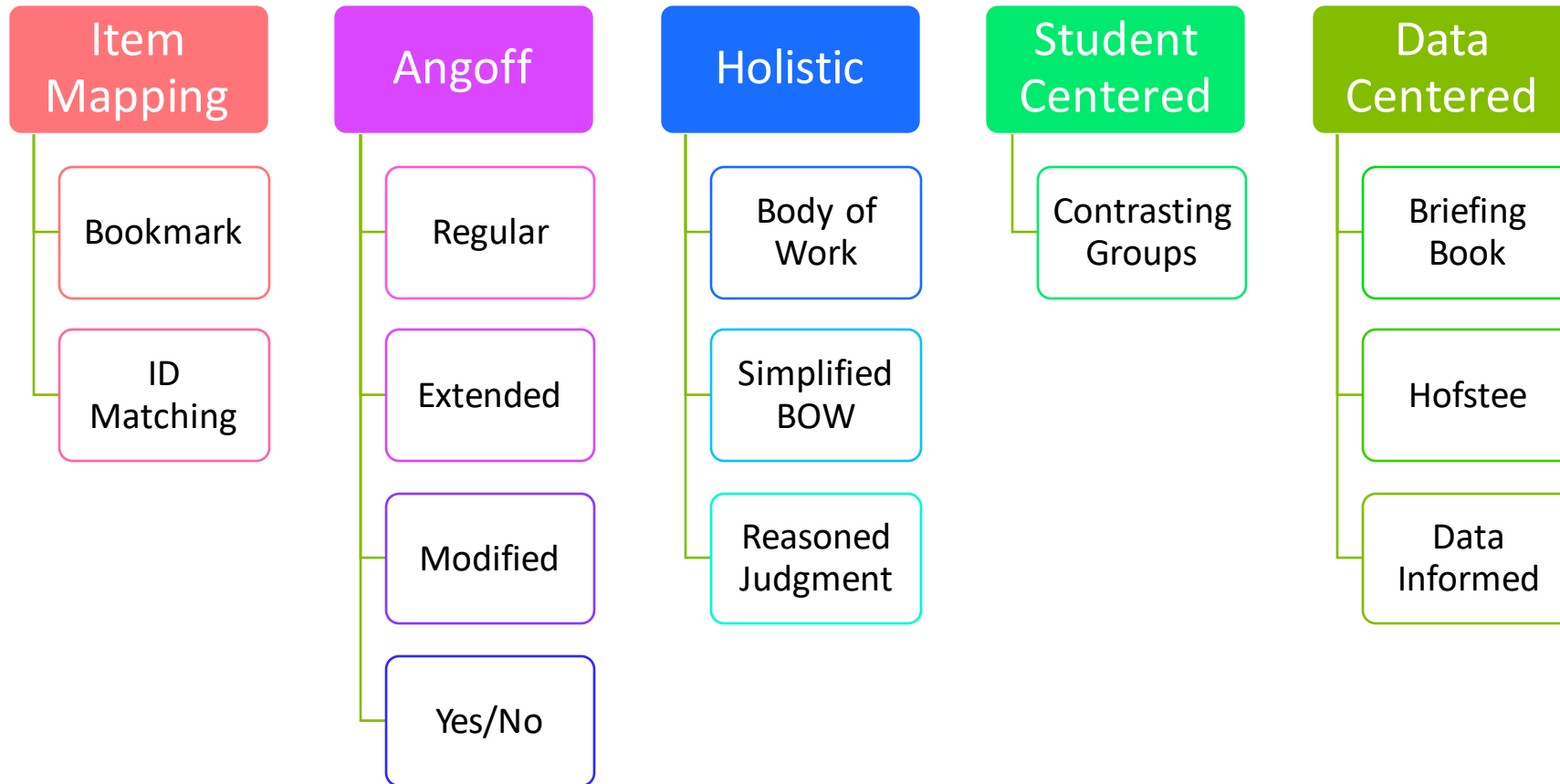
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Standard Setting Process



Standard Setting Methods



Standard Setting Process

Experience

- Panelists experience the items on the assessment in a similar format as students

Expectations

- Panelists work together to develop common expectations for students with performance at the borderline of each level

Training

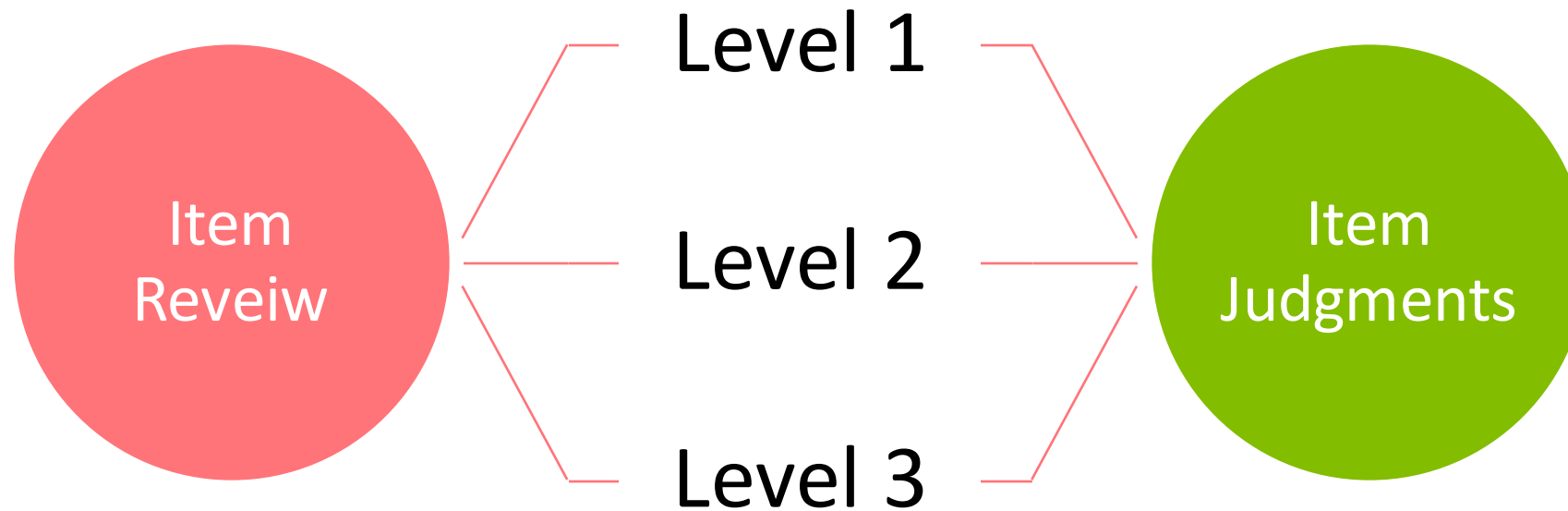
- Panelists will be trained in the standard setting process

Judgment Rounds

- Panelists will complete three individual judgment rounds with feedback and discussions

Angoff Item Judgment Process

For each item on the assessment, you will do the following:



Judgment Question

How many points

The judgment is the number of points earned for the item.

would

Realistic expectations of examinee performance on the assessment.

an examinee with
performance in the level

Knowledge and skills the examinee is expected to demonstrate.

likely earn?

Mastery....2 out of 3 times



Try it out....

Question 1: (1 Point)

Where is Wakanda located?

- A. Africa
- B. Antarctica
- C. Australia
- D. South America

Performance Level	Item Judgment	Total Raw Score
Level 2		
Level 3		

Question 2: (1 Point)

Where did the metal come from that Thor's hammer, Mjolnir, is made from?

- A. Asteroid
- B. Black Hole
- C. Comet
- D. Star

Performance Level	Item Judgment	Total Raw Score
Level 2		
Level 3		

Question 3: (1 Point)

What is the name of the set of documents that regulate the activities of enhanced persons?

- A. Paris Accords
- B. Sokovia Accords
- C. Stark Accords
- D. Wakanda Accords

Performance Level	Item Judgment	Total Raw Score
Level 2		
Level 3		

Question 4: (1 Point)

What landmark does Peter Parker rescue his classmates from in Spider-Man: Homecoming?

- A. Empire State Building
- B. Mount Rushmore
- C. Statue of Liberty
- D. Washington Monument

Performance Level	Item Judgment	Total Raw Score
Level 2		
Level 3		

Question 5: (1 Point)

Which is the first film that Hawkeye appears in?

- A. Avengers
- B. Captain America: The First Avenger
- C. Iron Man 3
- D. Thor

Performance Level	Item Judgment	Total Raw Score
Level 2		
Level 3		

Question 6: (2 Point)

Part A: How did Nick Fury lose his eye?

- A. Lost during hand-to-hand fight
- B. Scratched by a Flerken
- C. Shrapnel from grenade blast
- D. Chemical spill

Part B: Which movie was this information revealed?

- A. Avengers
- B. Captain America: The First Avenger
- C. Captain Marvel
- D. Iron Man

Performance Level	Item Judgment	Total Raw Score
Level 2		
Level 3		

Question 7: (2 Point)

Which of the following superheroes were part of team Iron Man in Captain America: Civil War? (Select all that apply.)

- A. Ant Man
- B. Black Widow
- C. Black Panther
- D. Dr. Strange
- E. Hulk
- F. Hawkeye
- G. Spider Man
- H. Thor
- I. War Machine

Performance Level	Item Judgment	Total Raw Score
Level 2		
Level 3		

Question 8: (5 Points)

What does S.H.I.L.D stand for?

S. _Strategic_____

H. _Homeland_____

I. _Intervention_and_____

L. _Logistics_____

D. _Division_____

Performance Level	Item Judgment	Total Raw Score
Level 2		
Level 3		

Question 9: (6 Points)

What is the name that is associated with each color infinity stone?

Blue: __space stone_____

Orange: __mind stone_____

Green: __time stone_____

Purple: __power stone_____

Red: __reality stone_____

Yellow: __soul stone_____

Performance Level	Item Judgment	Total Raw Score
Level 2		
Level 3		



Performance level recommendations

The panelist cut score recommendations represent a range of expectations.

This variation is why we do three rounds of judgments with feedback data and discussions between judgment rounds.

The feedback data that is provided between judgment rounds includes:

- Panelist item judgment agreement (Rounds 1 and 2)
- Panelist cut score agreement (Rounds 1 and 2)
- Item performance data (Round 1)
- Impact data (Round 2)

Goal of the judgment rounds is not consensus of judgment but developing a cohesive understanding of examinee expectations for each performance level.

Impact of Standard Setting

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The Importance of Standard Setting

Standard setting meetings are an essential aspect of developing any assessment program, so that performance standards are established that represent the established meaning of the performance levels.





Questions



Pearson