Assessing Students' Work and Using the Information to Improve Instruction:

InTASC Standard 6 - Candidates use assessment results to improve instruction and monitor learning.

Seven Strategies of Assessment FOR Learning

Where Am I Going?

Strategy 1: Provide students with a clear and understandable vision of the learning target.

Strategy 2: Use examples and models of strong and weak work.

Where Am I Now?

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Strategy 3: Offer regular descriptive feedback. Strategy 4: Teach students to self-assess and set goals.

How Can I Close the Gap?

Strategy 5: Use evidence of student learning needs to determine next steps in teaching.

Strategy 6: Design focused instruction, followed by practice with feedback.

Strategy 7: Engage students in self-reflection and let them keep track of and share their learning.

Pages 1-6 Directions for completing the project

Pages 7-8 Sample of teacher candidate work on the assignment

Page 9 Example of feedback to the teacher candidate

Page 10 Example of feedback shared with the class of teacher candidates

Pages 11-19 Student samples that the teacher candidates assessed and utilized the data to improve instruction

I. Assess each student's math assessment.

Use the answer key to check items 1-10.

Complete the Target Table for each student

- Place a check mark by each learning target that is met
 - Total the check marks across each learning target row and write the number in the total column on the right
- Each of the ten items is worth two points.
 - Each student should have a score out of 20
 - Write each student's score out of 20 at the bottom of the chart

II. Think of at least one descriptive feedback comment for each student.

If the student has every answer correct, share a success feedback comment that is positive and specific about an aspect of quality or precision the student did well.

If the student has any incorrect responses, share one or more next-step feedback comments that will help point the student towards the learning target.

Feel free to share a success feedback statement with each student, regardless of their score.

III. Consider the evidence (data) from the assessment. Analyze your Target Table.

IV. Use the evidence to inform your future instruction.

What might you do next to help a specific student? Is there an area that a high percentage of the class needs work on? What might you consider doing for focused practice for improvement? Is there a way you could help the student learn to self-assess their work and be more confident?

V. Help the students reflect on where they are at now with respect to the learning targets.

How would you help the students track their growth using learning chains?

How would you help the students track their growth using targets in a stars and stairs chart?

Reflect on the assessment, how might you change the assessment instrument?

Reflect on your teaching, what went well and what could be done differently the next time I teach this unit?

Learning Chain Sample:	
Name	Date
I have learned to	
Evidence	
	In draw a basic number line tros to 200



Activities like creating Learning Chains (above) or Stars and Steps (below) can help students track their progress.



Source: Reprinted by permission from Rick Croom, San Juan Unified School District: Carmichael, CA. Unpublished classroom materials.

Complete this Target Table

Each of the 10 items is worth 2 points.

 $\sqrt{2 \text{ points}}$ If the student does everything correctly, they receive a check mark indicating the student earned both points and have provided evidence of meeting the "I can" statement (the learning target).

¹/₂ (**1 point**) If the student gets 1 of the 2 parts of an item correct, then the student receives score of ¹/₂ instead of a check mark. (*Example: one dot is placed correctly, and one dot is not placed in the correct location.*)

0 (**0 points**) If the student receives a zero, that means they did not have any part of the item correct.

Learning Target	Sora	Jonah	Sari	Dolly	Billy	Susan	Carlos	Priscilla	Omar	Total Number of Check Marks
I can draw a basic number line from 0 to 10 (Item 1)	V	\checkmark								
I can locate simple whole numbers on a number line (Item 2)	1	V								
*I can locate halves in fraction form on a number line (Item 3)	V	V								
I can locate tenths in decimal form on a number line (Item 4)	1	1/2								
I can indicate the approximate location of thirds, fourths, and fifths on a number line (item 5)**	1	1/2								
**2 nd problem like item 5: I can indicate the approximate location of thirds, fourths, and fifths on a number line (item 6)	\checkmark	1/2								
***I can identify/locate the approximate location of decimals in hundredths onto a number line (item 7)	1	\checkmark								
***2 nd problem like item 7: I can identify/locate the approximate location of decimals in hundredths onto a number line (item 8)	1	1/2								
*2 nd problem like item 3: I can locate halves in fraction form on a number line (Item 9)	V	1								
I can compare fractions, decimals, and mixed numbers by identifying their relative position on the number line (item 10)	√	V								
Score out of 20	20	16								
Percent	100	80								

Mat	h Assessment I	Name:		
1. Start	Draw a number line and label it with whole num	nbers from (0 to 10. End	
2.	On the number line you drew above , fill in a sol	id dot 🔵 on	the number 3 and another dot on the	number 8.
3.	On the number line below , place a solid dot O	on $1\frac{1}{2}$ feet	t and also a solid dot on $3\frac{1}{2}$ feet.	
0	1 2 3	4 fee	et	
4.	On the number line below, place a solid dot $igodot$	on 0.1 of a	meter and also a solid dot on 1.6 meter	rs
0	1	2 me	eters	
5.	On the number line below, place a solid dot 🔵	on $\frac{1}{3}$ and als	so a solid dot on $1\frac{2}{3}$	
0	1	2		
6.	On the number line below, place a solid dot $iglee$	on $\frac{1}{4}$ and als	so a solid dot on $1\frac{3}{4}$	
0	1	2		
7.	On the number line below, place a solid dot $igodot$	on 0.75 and	d also a solid dot on 1.25	
0	1	2		
8.	On the number line below, place a solid dot $igodot$	on 2.25 and	d also a solid dot on 0.50	
0	1	2	3	
9.	Each day Juan stopped at the bakery on his way house to the school. Place a solid dot 🔵 to show	to school. T v the location	The bakery was one-half the distance for on of the bakery.	rom Juan's
0 Hou	ISE	1 mi Scho	ile ool	
		Circle the large	er number 1	
10.	Circle the larger number on the right: 3.4 me	eters or	$3\frac{1}{2}$ meters	
3		4		
Met	ters	Meters		

Math Assessment

Name: Answer Key

1. Draw a number line and label it with whole numbers from 0 to 10.



Seven Strategies of Assessment FOR Learning Where Am I Going? Strategy 1: Provide students with a clear and understandable vision of the learning target. Strategy 2: Use examples and models of strong and weak work. Where Am I Now? Strategy 3: Offer regular descriptive feedback. Strategy 4: Teach students to self-assess and set goals. How Can I Close the Gap? Strategy 5: Use evidence of student learning needs to determine next steps in teaching. Strategy 6: Design focused instruction, followed by practice with feedback. Strategy 7: Engage students in self-reflection and let them keep track of and share their learning.

Write (type) an example of a success feedback statement you would write to one of these students.

Write (type) an example of a next-step feedback statement you would write to one of these students.

Based on the evidence, what areas would you like to do some additional teaching for (focused revision) and which areas would you like to provide learners with additional practice?

- Identify one area you would like to communicate with the whole class about to improve learning for everyone.
- Provide an example of a student and an area in which you would work individually with that student to help them towards the learning target.

Assessing Students' Work and Using the Information to Improve Instruction:

Complete this Target Table (Teacher Candidate Work Sample on pages 7-8)

Each of the 10 items is worth 2 points.

 $\sqrt{2 \text{ points}}$ If the student does everything correctly, they receive a check mark indicating the student earned both points and have provided evidence of meeting the "I can" statement (the learning target).

¹/₂ (1 point) If the student gets 1 of the 2 parts of an item correct, then the student receives score of ¹/₂ instead of a check mark. (*Example: one dot is placed in the correct location and one dot is not.*)

0 (**0 points**) If the student receives a zero, that means they did not have any part of the item correct.

Learning Target	Sora	Jonah	Sari	Dolly	Billy	Susan	Carlos	Priscilla	Omar	Total Number of Check Marks
I can draw a basic number line from 0 to 10 (Item 1)	\checkmark	\checkmark	\checkmark	\checkmark	1/2	0	\checkmark	\checkmark	\checkmark	7
I can locate simple whole numbers on a number line (Item 2)	1	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	1/2	\checkmark	8
*I can locate halves in fraction form on a number line (Item 3)	1	\checkmark	0	V	\checkmark	\checkmark	\checkmark	\checkmark	V	8
I can locate tenths in decimal form on a number line (Item 4)	1	1/2	0	V	\checkmark	V	1/2	0	V	5
I can indicate the approximate location of thirds, fourths, and fifths on a number line (item 5)**	1	1/2	1/2	V	0	0	1/2	0	\checkmark	3
**2 nd problem like item 5: I can indicate the approximate location of thirds, fourths, and fifths on a number line (item 6)	\checkmark	1/2	1/2	\checkmark	\checkmark	0	\checkmark	0	\checkmark	5
***I can identify/locate the approximate location of decimals in hundredths onto a number line (item 7)	1	\checkmark	1/2	1/2	1/2	1/2	\checkmark	1/2	\checkmark	4
***2 nd problem like item 7: I can identify/locate the approximate location of decimals in hundredths onto a number line (item 8)	1	1/2	1/2	1/2	1/2	V	V	V	V	5
*2 nd problem like item 3: I can locate halves in fraction form on a number line (Item 9)	\checkmark	\checkmark	\checkmark	0	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	8
I can compare fractions, decimals, and mixed numbers by identifying their relative position on the number line (item 10)	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	V	$\overline{\mathbf{A}}$	0	V	8
Score out of 20	20	16	12	16	15	13	18	8	20	
Percent	100	80	60	80	75	65	90	40	100	

Strategy 5: Use evidence of student learning needs to determine next steps in teaching. **Strategy 6: Design focused instruction**, followed by **practice** with feedback.

Write (type) an example of a success feedback statement you would write to one of these students.

Carlos, you did a great job creating a clean and organized number line. You also did well on locating hundredths on a number line. Great work! (The feedback is written by a teacher candidate completing this course assignment as if he or she was writing to a student named Carlos. The teacher candidate assessed the work Carlos did, and now is writing feedback.)

Write (type) an example of a next-step feedback statement you would write to one of these students.

Carlos, the next time you work with number lines and numbers with thirds, fourths, fifths, and tenths, take some time to work on the precision of placement for the numbers given to you. Try to fraction up the line and place the dots closer to the number given to you. (The feedback is written by a teacher candidate completing this course assignment as if he or she was writing to a student named Carlos. The teacher candidate assessed the work Carlos did, and now is writing feedback.)

Based on the evidence, what areas would you like to do some additional teaching for (focused revision) and which areas would you like to provide learners with additional practice?

• Identify one area you would like to communicate with the whole class about to improve learning for everyone.

I would like to improve the locating thirds, fourths, and fifths on a number line with the whole class. I would teach a mini lesson to the whole group and explain what each number looks like and how to locate it. I would have the students break into small groups and use manipulatives to show the different fractions and have them practice on whiteboards locating the fractions on a number line. (teacher candidate response)

• Provide an example of a student and an area in which you would work individually with that student to help them towards the learning target.

I would work with Priscilla on locating thirds, fourths, fifths, and tenths on a number line. She did not seem to understand the concept of these fractions very well. I would show her how to break the line up into smaller tick marks in order to better locate the fractions. I would have her practice on a whiteboard and work with her to scaffold this concept of fractions for her. I may also provide her with some extra practice to take home. (teacher candidate response)

Example of feedback from the instructor to the teacher candidate who submitted the assignment on pages 7-8.

Hi _____,

It is important for teachers to use the assessment data they gather to improve their own teaching and their students' learning.

You did well as a teacher grading the work of your students and deciding how to use the evidence to improve teaching and learning in your classroom.

I liked your ideas for teaching the class and an individual student. You also did well with your success and nextstep feedback comments. Your success feedback identified specific examples of quality and achievement. Your next-step feedback provided direction towards the learning target. Your tone was encouraging and identified how the student could improve.

Well done.

Al Olson

Strategy 5 and 6 in Practice

Strategy 5: Use evidence of student learning needs to determine next steps in teaching. **Strategy 6**: Design focused instruction, followed by practice with feedback.

Learning Target	Most Frequent Number of Students Displaying the Correct Answer	Percent of Teachers with the same Student Ratings
I can draw a basic number line from 0 to 10 (Item 1)	7	48.0%
I can locate simple whole numbers on a number line (Item 2)	9	76.0%
*I can locate halves in fraction form on a number line (Item 3)	8	100.0%
I can locate tenths in decimal form on a number line (Item 4)	5	80.0%
I can indicate the approximate location of thirds, fourths, and fifths on a number line (item 5)**	4	64.0%
**2 nd problem like item 5: I can indicate the approximate location of thirds, fourths, and fifths on a number line (item 6)	5	80.0%
***I can identify/locate the approximate location of decimals in hundredths onto a number line (item 7)	4	84.0%
***2 nd problem like item 7: I can identify/locate the approximate location of decimals in hundredths onto a number line (item 8)	5	80.0%
*2 nd problem like item 3: I can locate halves in fraction form on a number line (Item 9)	8	96.0%
I can compare fractions, decimals, and mixed numbers by identifying their relative position on the number line (item 10)	8	84.0%

The median score for a student was 16 out of 20. (The mean was 15.7).

Eighty-eight (88%) of the teacher ratings were in agreement. Not all of you scored each item exactly the same. For the items with lower agreement ratings, we should look carefully at how the directions are worded to make sure the outcomes and assessments are as reliable as possible.

The students did the best on the learning target related to locating simple whole numbers on a number line. (9)

The two learning targets in which the student struggled the most included:

- I can indicate the approximate location of thirds, fourths, and fifths on a number line (4)
- and
 - I can identify/locate the approximate location of decimals in hundredths onto a number line (4)

The class did well as teachers grading student work and using the evidence to inform decisions for instruction, feedback and considering ideas for additional practice. Our class discuss reliability and rater agreement as part of the highlighted results above.

It is important for teachers to use the assessment data they gather (formal or informal) to improve teaching and learning. I also appreciated the opportunity to review providing feedback. The class did well at creating success and next-step feedback statements for the students.

Well done.

Al Olson

Examples of student assessments that the teacher candidates assessed. The instructor provided two samples of student work that was assessed, and the teacher candidates assessed the rest of the students' work. The results were used to inform decisions for future planning, improved instruction, and to monitor student learning toward the intended learning targets.







IVI







Name: _ Math Assessment Draw a number line and label it with whole numbers from 0 to 10. 1. End Start (0) 10 Ò On the number line you drew above, fill in a solid dot on the number 3 and another dot on the number 8. 2. On the number line below, place a solid dot \bigcirc on $1\frac{1}{2}$ feet and also a solid dot on $3\frac{1}{2}$ feet. з. 4 feet 3 2 1 0 On the number line below, place a solid dot
on 0.1 of a meter and also a solid dot on 1.6 meters 4. 2 meters 0 1 On the number line below, place a solid dot \bigcirc on $\frac{1}{3}$ and also a solid dot on $1\frac{2}{3}$ 5. 2 1 0 On the number line below, place a solid dot \bigcirc on $\frac{1}{4}$ and also a solid dot on $1\frac{3}{4}$ 6. 2 0 1 On the number line below, place a solid dot 🜑 on 0.75 and also a solid dot on 1.25 7. 2 1 0 On the number line below, place a solid dot 🌑 on 2.25 and also a solid dot on 0,50 8. 3 2 1 0 Each day Juan stopped at the bakery on his way to school. The bakery was one-half the distance from Juan's 9. house to the school. Place a solid dot
to show the location of the bakery. 1 mile 0 School House 10. Circle the larger number: 3.4 meters of $3\frac{1}{2}$ meters?

4

Meters



Math Assessment

Meters

arlos Name:

1. Draw a number line and label it with whole numbers from 0 to 10.



Meters

Math Assessment

1.

Start

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Priscilla Name: Draw a number line and label it with whole numbers from 0 to 10. End io ٩ 5 1 2 4 ٦ 6 On the number line you drew above, fill in a solid dot on the number 3 and another dot on the number 8. On the number line below, place a solid dot \bigcirc on $1\frac{1}{2}$ feet and also a solid dot on $3\frac{1}{2}$ feet. 3 4 feet 2 1 On the number line below, place a solid dot 🜑 on 0.1 of a meter and also a solid dot on 1.6 meters 2 meters On the number line below, place a solid dot \bigcirc on $\frac{1}{3}$ and also a solid dot on $1\frac{2}{3}$ 1 On the number line below, place a solid dot \bigcirc on $\frac{1}{4}$ and also a solid dot on $1\frac{3}{4}$ 2 1 On the number line below, place a solid dot 🜑 on 0.75 and also a solid dot on 1.25 2 1 On the number line below, place a solid dot

on 2,25 and also a solid dot on 0.50 3 1 2 Each day Juan stopped at the bakery on his way to school. The bakery was one-half the distance from Juan's house to the school. Place a solid dot
to show the location of the bakery. 1 mile



18

Draw a number line and label it with whole numbers from 0 to 10. 1. Start 3 4 ۱ 2 0 7 5 On the number line you drew above, fill in a solid dot on the number 3 and another dot on the number 8. 2. On the number line below, place a solid dot \bigcirc on $1\frac{1}{2}$ feet and also a solid dot on $3\frac{1}{2}$ feet. з. 1 1/2 3 3/2 4 feet 0 On the number line below, place a solid dot 🜑 on 0.1 of a meter and also a solid dot on 1.6 meters 4. 4.6 2 meters 1 _____ 0 0.1 On the number line below, place a solid dot \bigcirc on $\frac{1}{2}$ and also a solid dot on $1\frac{2}{3}$ 5. 1 1 2 0 On the number line below, place a solid dot \bigcirc on $\frac{1}{4}$ and also a solid dot on $1\frac{3}{4}$ 6. l

On the number line below, place a solid dot
on 0.75 and also a solid dot on 1.25 7.

.75 1 1.25 2 0

On the number line below, place a solid dot 🜒 on 2.25 and also a solid dot on 0.50 8.



Each day Juan stopped at the bakery on his way to school. The bakery was one-half the distance from Juan's 9. house to the school. Place a solid dot
to show the location of the bakery.



Math Assessment

0

Name: Uma

End

10

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