		MATHEMA	TICS LOG		
Study of Instructional Improvement				For office us	se only
I. How much total time did the to instruction the target student instruction took place in anoth (Print the number of minutes us	received, in her room or	cluding routine by another teac	times such as m her.	orning or calenda	ar math, even if the
If 0 minute	es, skip to Q	uestion 3.			
observer of the teaching? (Print the number of minutes us If more the seconds of the following items of the foll	an 0 minute ny you reco you choose, osent sion (e.g., va assembly, vo pated in stan ed "pull out"	s, skip to Questice rded 0 minutes place an "X" in the acation period) isitor, or other specifications dardized testing/teinstruction	in 4. in Question 1 or the corresponding ecial event est preparation	2 , and then stop box. Mark all tha	here.
in mathematics today? (Place	e an " X " in o	ne of the boxes fo	or each item.)	_	was a major o
	A major focus	A minor focus	Touched on briefly	Not taught today	
a. Number concepts (whole number, decimal, or fraction)					$ \mathbf{A} $
b. Operations (whole number, decimal, or fraction)					В
c. Patterns, functions, or algebra					\mathbf{C}
d. Other mathematical content	_	_	_	<u>—</u>	
Learning about money, telling time, or reading a calendar	П		П	П	None
Representing or interpreting data					None
Geometry					None
4. Measurement					None
5. Probability					None
6. Percent, ratio, or proportion					None
7. Negative numbers					None
8. Other					None

If you marked major focus or minor focus for Questions 4a, 4b, or 4c, please turn the page and answer the questions for the section(s) indicated in the color boxes above.

All others STOP HERE.



\1 .	What were you using in your work on number concepts? (Mark all that apply.)		
	Whole numbers (A1a)		
	Decimals (A1b)		
	Fractions (A1c)		
\2 .	What did the target student work on today?		
	(For each area you choose below, place an "X" in a box to indicate whether it was a focus of instruction or was touched on briefly.)	A focus of instruction	Touched on briefly
	Writing, reading, or recognizing whole numbers, decimals, or fractions (A2a)		
	Counting (A2b)		
	Comparing or ordering two or more quantities (A2c)		
	Properties of whole numbers (e.g., even and odd, prime, square) (A2d)		
	Factors, multiples, or divisibility with whole numbers (A2e)		
	Composing or decomposing (grouping) whole numbers or decimals into tenths, ones, tens, hundreds, etc. (A2f)		
	Identifying the values of the places in whole numbers or decimals (A2g)		
	The meaning of fractions (A2h)		
	Understanding equivalent fractions or working on reducing fractions (A2i)		
	Relationships between decimals and fractions (A2j)		
	Estimating the size of quantities or rounding off numbers (A2k)	_	
A3.	What did you or the target student use to work on the aspects of number concepts that you checked in C (For any of the following items you choose, place an "X" in the corresponding box. Mark all that apply.)	Question A2?	
	Numbers or symbols (A3a)		
	Concrete materials (A3b)		
	Real-life situations or word problems (A3c)		
	Pictures or diagrams (A3d)		
	Tables or charts (A3e) I made explicit links between two or more of these representations (A3f)		
	What was the target student asked to do during the work on number concepts?		
	(Mark all that apply, but only if the target student did it for a sustained period of time.)		
	Listen to me present the definition for a term or the steps of a procedure (A4a)		
	Perform tasks requiring ideas or methods already introduced to the student (A4b) Assess a problem and choose a method to use from those already introduced to the student (A4	c)	
	Perform tasks requiring ideas or methods <u>not</u> already introduced to the student (A4d)	C)	
	Explain an answer or a solution method for a particular problem (A4e)		
	Analyze similarities and differences among representations, solutions, or methods (A4f)		
	Prove that a solution is valid or that a method works for all similar cases (A4g)		
	Did the target student's work on number concepts today include any of the following?		
	(Mark all that apply, but only if the target student did it for a sustained period of time.)		
	Orally answering recall questions (A5a)		
	Working on textbook, worksheet, or board work exercises for practice or review (A5b)	(450)	
	Working on problem(s) that have multiple answers or solution methods, or involve multiple steps	(ADC)	
٠,	Discussing ideas, problems, solutions, or methods in pairs or small groups (A5d)		
•	Using flashcards, games, or computer activities to improve recall or skill (A5e) ☐ Writing extended explanations of mathematical ideas, solutions, or methods (A5f)		
	Writing extended explanations of mathematical ideas, solutions, or methods (A5f) Working on an investigation, problem, or project over an extended period of time (A5g)		
	Office Use Only		

В0.	_ `_ `	u focus on today? (Mark all that apply.)			
	Addition (B0				
	Subtraction Multiplication				
	☐ Multiplication ☐ Division (B0				
	-				
B1.		our work on operations? (Mark all that apply.)			
	Whole numl				
	Decimals (B	,			
	Fractions (B	1c)			
B2.	What did the target stude	•	A ((T	
	a focus of instruction or was	below, place an "X" in a box to indicate whether it was s touched on briefly.)	A focus of instruction	Touched on briefly	
	The meaning or properties	of an operation (B2a)			
	Basic facts (whole numbers	s only):	_	_	
	•	or finding answers to basic facts (B2b)			
	Practicing basic facts for	or speed or accuracy (B2c)			
	Computation with multi-digi	t whole numbers, decimals, or fractions:	_	_	
	Why a conventional cor	nputation procedure works (B2d)			
	How to carry out the ste	eps of a conventional computation procedure (B2e)			
	Practicing computation	procedures for speed, accuracy, or ease of use (B2f)	\sqcup	\sqcup	
	, ,	alternative, or non-conventional methods for doing computation (B2g)		\sqcup	
		putation to solve word problems or puzzles (B2h)			
	Estimating the answer to a	computation problem (B2i)			
В3.	What did you or the targe	t student use to work on the aspects of operations that you checked in Questic	on B2?		
	(For any of the following ite	ms you choose, place an "X" in the corresponding box. Mark all that apply.)			
	Numbers o	r symbols (B3a)			
	Concrete n	naterials (B3b)			
	Real-life si	tuations or word problems (B3c)			
	Pictures or	diagrams (B3d)			
	Tables or o	charts (B3e)			
	☐ I made exp	licit links between two or more of these representations (B3f)			
B4.	What was the target stude	ent asked to do during the work on operations?			
	(Mark all that apply, but on	ly if the target student did it for a sustained period of time.)			
	Listen to me	present the definition for a term or the steps of a procedure (B4a)			
	Perform tas	ks requiring ideas or methods already introduced to the student (B4b)			
	Assess a pr	oblem and choose a method to use from those already introduced to the student (B4	lc)		
	Perform tasl	ks requiring ideas or methods <u>not</u> already introduced to the student (B4d)			
	Explain an a	nswer or a solution method for a particular problem (B4e)			
	= '	ilarities and differences among representations, solutions, or methods (B4f)			
	Prove that a	solution is valid or that a method works for all similar cases (B4g)			
B5.	Did the target student's work on operations today include any of the following?				
		y if the target student did it for a sustained period of time.)			
	= ::	ering recall questions (B5a)			
	=	textbook, worksheet, or board work exercises for practice or review (B5b)	(DEa)		
	= = :	problem(s) that have multiple answers or solution methods, or involve multiple steps	(BSC)		
	=	deas, problems, solutions, or methods in pairs or small groups (B5d)			
	=	ards, games, or computer activities to improve recall or skill (B5e)			
	= -	nded explanations of mathematical ideas, solutions, or methods (B5f)			
	I I WARKINA AN	an investigation, problem, or project over an extended period of time (B5g)			

C - Patterns, Functions, or Algebra		
C1. What were you using in your work on patterns, functions, or algebra? (Mark all that apply.)		
Objects (C1a) Shapes or designs (C1b) Numbers (C1c) Symbols (C1d) Formulas or equations (C1e)		
C2. What did the target student work on today?		
(For each area you choose below, place an "X" in a box to indicate whether it was	A focus of instruction	Touched on briefly
Organizing objects by size, number, or other properties (C2a)		
Types of patterns:		
Creating, continuing, or explaining repeating patterns (e.g., 2, 1, 2, 1 or \square , \triangle , \bigcirc , \square , \triangle , \bigcirc) (C2b)		
Constructing sequences , explaining their patterns, or predicting subsequent terms (e.g., 3, 7, 11, 15) (C2c)		
Finding and explaining other patterns (e.g., patterns in a representation like the hundreds chart or patterns in a word problem) (C2d)		
The use of a symbol to stand for an unknown number (e.g., 3 + ★ = 7) (C2e)		
Understanding and using formulas or equations expressed in symbolic form (C2f)	П	П
Expressing a function or a sequence as a general rule using words, tables, or formulas (C2g)		
(For any of the following items you choose, place an "X" in the corresponding box. Mark all that apply.) Numbers or symbols (C3a) Concrete materials (C3b) Real-life situations or word problems (C3c) Pictures or diagrams (C3d) Tables or charts (C3e) I made explicit links between two or more of these representations (C3f)		
C4. What was the target student asked to do during the work on patterns, functions, or algebra?		
(Mark all that apply, but only if the target student did it for a sustained period of time.)		
Listen to me present the definition for a term or the steps of a procedure (C4a) Perform tasks requiring ideas or methods already introduced to the student (C4b) Assess a problem and choose a method to use from those already introduced to the student (C4c) Perform tasks requiring ideas or methods not already introduced to the student (C4d) Explain an answer or a solution method for a particular problem (C4e) Analyze similarities and differences among representations, solutions, or methods (C4f) Prove that a solution is valid or that a method works for all similar cases (C4g)	5)	
C5. Did the target student's work on patterns, functions, or algebra today include any of the following?		
(Mark all that apply, but only if the target student did it for a sustained period of time.)		
Orally answering recall questions (C5a)		
✓ Working on textbook, worksheet, or board work exercises for practice or review (C5b)✓ Working on problem(s) that have multiple answers or solution methods, or involve multiple steps	(C5c)	
Discussing ideas, problems, solutions, or methods in pairs or small groups (C5d)	(000)	
Using flashcards, games, or computer activities to improve recall or skill (C5e)		
Writing extended explanations of mathematical ideas, solutions, or methods (C5f)		
Working on an investigation, problem, or project over an extended period of time (C5g)		



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