Observer name: _____

Date: _____

School name: _____

Location: _____

Teacher name: _____

Grade: _____ Number of learners/pupils: _____ Age range: _____

Boys: _____ Girls: _____ Length of lesson: _____ (minutes)

ELM class ☐ Control class ☐

I. Classroom Environment *(tick what applies)*

Classroom ☐ Computer Lab ☐ Computer Station/Centre ☐ Mobile Lab(tablets) ☐

Educational technology

Projector ☐

Other technology _____

Learner/pupil-computer ratio: _____learners per computer/tablet

Technology works properly: Yes ☐ No ☐

Comment on what works/ does not work :

_____

_____

Teacher and learner comfort with technology

Tick the statement describing the *teachers'* level of comfort with technology.

The teacher:

- ☐ is avoiding technology and is anxious about using computers;
- ☐ knows the basics but is sometimes frustrated using computers and lacks confidence when using them;
- ☐ is confident in using the computer for one specific task;
- ☐ uses different computer applications; the computer is an instructional tool that she integrates smoothly in her teaching.

Tick the level of *learners'* comfort with technology:

Very comfortable ☐ Somewhat comfortable ☐ Not at all ☐

I. *Mathematic Activities*

Counting

Technology used: ☐ Yes ☐ No

ELM Counting activities (tick all used)
Activity 1 ☐ Activity 2 ☐ Activity 3 ☐
Activity 4 ☐ Activity 5 ☐

Teacher integrated the ELM lesson plan
Yes ☐ No ☐

a. How much time was spent on counting activities?
___less than 5 minutes
___5-10 min
___more than 15
___whole lesson

b. If not ELM counting activities, what type of counting activities did you see? (Tick all that apply)
___ counting physical objects
___ keeping record while counting
___ one-to-one counting/enumeration
___ counting up/down
___ counting by twos, etc
___ applying ordinal terms
___ associating numeral with a count of objects

Other counting activities:
_____

Comparing

Technology used: ☐ Yes ☐ No

ELM Comparing activities (check all used)
Activity 1 ☐ Activity 2 ☐ Activity 3 ☐
Activity 4 ☐

Teacher integrated the ELM lesson plan
Yes ☐ No ☐

a. How much time was spent on comparing activities?
___less than 5 minutes
___5-10 min
___more than 15
___whole lesson

b. If not ELM comparing activities, what type of comparing activities did you see? (tick all that apply)
___ determining whether cardinalities are the same
___ determining which cardinality is smaller/bigger
___ practicing different ways of saying/writing that cardinalities are the same, bigger or smaller
___ comparing neighbouring numbers
___ playing games that involve keeping score
___ mental comparison of number words

Other comparing activities: _____

Adding

Technology used: ☐ Yes ☐ No

ELM Adding activities (tick all used)
Activity 1 ☐ Activity 2 ☐ Activity 3 ☐
Activity 4 ☐

Teacher integrated the ELM lesson plan
Yes ☐ No ☐

a. How much time was spent on adding activities?
___less than 5 minutes
___5-10 min
___more than 15
___whole lesson

b. If not ELM adding activities, what type of adding activities did you see? (tick all that apply)
___ determining the missing addend by adding objects
___ counting on or up (using a finger pattern, etc)
___ solving problems based on part-whole understanding
___ writing equations representing adding

Other adding activities:
_____

Subtracting

Technology used: ☐ Yes ☐ No

ELM Subtracting activities (tick all used)
Activity 1 ☐ Activity 2 ☐ Activity 3 ☐
Activity 4 ☐ Activity 5 ☐

Teacher integrated the ELM lesson plan
Yes ☐ No ☐

a. How much time was spent on subtracting activities?
___less than 5 minutes
___5-10 min
___more than 15
___whole lesson

b. If not ELM subtracting activities, what type of subtraction activities did you see? (tick all that apply)
___ removing objects from a pile
___ counting down (using a finger pattern, etc)
___ solving problems based on part-whole understanding
___ writing equations representing subtraction

Other subtracting activities:
_____

Decomposing

Technology used: ☐ Yes ☐ No

ELM Decomposing activities (tick all used)
Activity 1 ☐ Activity 2 ☐ Activity 3 ☐
Activity 4 ☐

Teacher integrated the ELM lesson plan
Yes ☐ No ☐

a. How much time was spent on decomposing activities?
___less than 5 minutes
___5-10 min
___more than 15
___whole lesson

b. If not ELM decomposing activities, what type of decomposing activities did you see? (tick all that apply)
___ finding all pairs of numbers that sum to a given number
___ solving problems based on part-whole understanding
___ writing equations representing a decomposition of a number
___ addressing recognition of either or both the vertical or horizontal pattern in a table of decompositions of a number

Other decomposing activities:
_____

Place Value

a. How much time was spent on place value activities?
___ less than 5 minutes
___5-10 min
___more than 15
___whole lesson

b. If not doing place value activities in ELM, what type of place value activities did you see? (tick all that apply)
___building a number (digit cards or blocks)
___place value worksheets
___number line-up

Technology used: ☐ Yes ☐ No

ELM Place Value activities (tick all used)
Activity 1 ☐ Activity 2 ☐ Activity 3 ☐
Activity 4 ☐

Teacher integrated the ELM lesson plan
Yes ☐ No ☐

Other place value activities: _____

Geometry

a. How much time was spent on geometry activities?
___ less than 5 minutes
___5-10 min
___more than 15
___whole lesson

Technology used: ☐ Yes ☐ No

ELM Geometry: Identify shapes activities (tick all used)
Activity 1 ☐ Activity 2 ☐ Activity 3 ☐

b. If not doing place value activities in ELM, what type of geometry activities did you see?
_____
_____

Patterns

a. How much time was spent on patterns activities?
___ less than 5 minutes
___5-10 min
___more than 15
___whole lesson

Technology used: ☐ Yes ☐ No

ELM Translate Pattern activity ☐

b. If not doing Translate Patterns in ELM, what type of pattern activities did you see?
_____
_____

Data

a. How much time was spent on data activities?
___ less than 5 minutes
___5-10 min
___more than 15
___whole lesson

Technology used: ☐ Yes ☐ No

ELM Bar Graphs and Tables activities
Activity 1 ☐ *Activity 2* ☐

b. If not doing Bar Graphs and Tables in ELM, what type of data activities did you see?
_____
_____

Number line

a. How much time was spent on patterns activities?
___ less than 5 minutes
___5-10 min
___more than 15
___whole lesson

Technology used: ☐ Yes ☐ No

ELM Number line activity ☐

Teacher integrated the ELM lesson plan
Yes ☐ No ☐

b. If not doing Number as Displacement activity in ELM, what type of number line activities did you see?

_____

_____

III. Mathematic Instruction

Please use the scale of 1 to 5, where 1 means "not at all" and 5 means "very frequently", rate the behaviours you can observe in a math class (items 13-18 pertain exclusively to classes where ELM is used)

During this Math class, I observed the following...		Not at all	Rarely	Occasionally	Frequently	Very Frequently
		1	2	3	4	5
1.	The learners were engaged in Math activities.					
2.	The learners provided support for each other.					
3.	The teacher was enthusiastic about teaching Math.					
4.	The teacher provided clear directions.					
5.	The teacher used mathematical language when giving instruction.					
6.	The teacher checked on the learners' understanding during instruction.					
7.	The teacher checked on progress during work time.					
8.	The teacher circulated and provided feedback.					
9.	The teacher addressed learners' mistakes adequately.					
10.	The teacher allowed the learners who mastered the basics to take on more challenging tasks.					
11.	The teacher encouraged dialogue between learners during activities.					
12.	The teacher encouraged class discussion to consolidate learning.					
13.	When using ELM, the learners attended to the given task.					

During this Math class, I observed the following…		Not at all	Rarely	Occasionally	Frequently	Very Frequently
		1	2	3	4	5
14.	When in ELM, the learners did the task on their own with little or no prompting from the teacher.					
15.	The learners were able to effectively navigate ELM.					
16.	The teacher support to the learners using ELM was adequate.					
17.	The ELM activities were related to other activities in this lesson.					
18.	The teacher used the consolidation questions offered in the ELM lesson plan for discussion.					
19.	Technical problems were addressed/resolved timely.					

IV. Learner-Teacher interactions (***for mixed-gender classes only***). Please tick one that applies.

a. In this class who asked more questions?
Male learners ☐ Female learners ☐ No Difference ☐

b. How often did the teacher call upon the learners?
Female learners: Very Frequently ☐ Frequently ☐ Occasionally ☐ Rarely ☐ Never ☐

Male learners: Very Frequently ☐ Frequently ☐ Occasionally ☐ Rarely ☐ Never ☐

c. How did the teacher divide the learners in groups during the lesson?
By ability ☐ By gender ☐ By age ☐ Randomly ☐ No groups ☐

d. When explaining and providing examples, the language the teacher tended to use was …
Masculine ☐ Gender neutral ☐ Feminine ☐

e. Please use the following scale to rate your impressions about the **female and male learners** in this class*:*

	Outstanding	*Good*	*Satisfactory*	*Poor*
Female performance				
Female behaviour				
Male performance				
Male behaviour				

V. Overall Teaching and Student Engagement

"When observing this classroom, I see the following happening…" (tick one description that applies)

- Students are not attending to the task at hand. They are distracted and off-task. *- There is a lot of disruption and movement not related to the activity.* *- The teacher cannot get the children to remain on task.*
- Students occasionally attend to the given task. *- There is occasional disruption and movement not related to the activity.* *- Occasionally, when the students are off task the teacher is able to refocus the group with some effort.*
- Some students are attending to the given task. *- There is little off task behaviour.* *- The teacher is able to guide students through the lesson with minimal diversions from the task.*
- Most students are attending to the given task. *- There is minimal or no off-task behaviour* *- The teacher is able to guide students through activities effectively.*
- All students are involved in the given task. *- There is no off-task behaviour.* *- The children are discussing the task on their own with little or no prompting from the teacher.* *- The students are providing the teacher with new directions in which to go by actively participating in the discussions and are providing the teacher with feedback.*

Notes: