## CHAPTER 1: Numbers and Quantities

## **MINI-MODULE C**

# Understand, Read, and Write Numbers

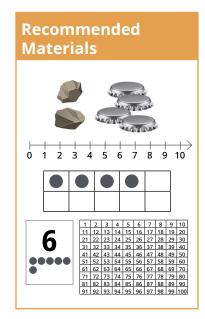
### **Objectives**

This mini-module aims to help teachers:

- Identify some strategies and materials that can be used to teach children how to read and write numbers.
- Practice a new teaching activity.

### **Illustration of Teaching**





#### **REFLECT:**

- Why do you think the student made this mistake?
- What should the teacher do when they see this mistake?

#### **Ideas to Consider**

The teacher showed 5 dots. The student made a mistake by writing 6. Counting to "5," subitizing "5," and writing the numeral 5 are different skills. It is not clear why the child made this mistake. They may not understand how to count or how to read and write numbers. The teacher should assess what it is that the child does not understand.

The teacher could identify whether the child counts correctly by having them count or say the number aloud. If the child cannot count, the teacher could support them with more counting practice. If they can count, then the teacher could support them with writing activities. The students could practice writing the numbers represented by a picture or a set of objects. They could also practice writing a number they hear and writing the numbers in order.



#### **ACTIVITY: READ, WRITE, AND REFLECT**

This activity can be completed alone, in pairs, or with a group of teachers. If you have colleagues to work with, take turns reading and writing numbers. Discuss your responses to the questions.

Purpose: Practice reading and writing numbers, and imagine children's challenges.

Materials needed: Writing materials (e.g., pen and paper).

#### Instructions

- Read the story aloud: In 1 school, there are 4 teachers and 65 students. In the town, there are 13,072 people.
- Reflect and discuss: Which numbers are easiest to read? Which numbers are hardest? Why?
- Take turns saying different numbers aloud. Write the numbers you hear your colleagues say. You may choose challenging numbers and say them quickly.
- Reflect and discuss: How do you think children feel when they first learn to read and write numbers? What might they find challenging? Why?

#### What Do Children Learn about Numbers?

Children learn how to read and write each number symbol (numeral) 0 to 9 and connect it with the quantity. Children can be asked to read aloud numbers that are written on the board, a number line, number cards, or a 100 chart. They can also be asked to write the numeral for a group of objects, a picture, or a number that the teacher says aloud.

Once they can write the numerals 0 to 9, children learn to write two-digit numbers. They should already be familiar with these numbers from counting. Children can learn to read and write two-digit numbers before they learn about the place value of the digits. For example, they may identify that two-digit numbers starting with 4 are called "forties" (41, 42, 43, ...), but they may not yet understand that the 4 represents 4 tens.

Children should be able to	What does this mean?	Example
Understand zero	Understand that zero is "none" or the lack of any quantity.	4:
Understand, read, and write numbers, including 0	Read and write the number symbol for each quantity.	0123456789
Understand, read, and write numbers up to 100	Read and write two- digit numbers.	"How do you write forty-three?" <b>43</b>

Children also develop an understanding of zero as "none" or the lack of any quantity. Although the concept seems simple, it is best to introduce after they have a good understanding of quantities.

Note: In math class, children are sometimes taught to spell numbers with letters (for example, "five" for 5). Reading and writing words is an important literacy skill. However, children's ability to spell numbers is not directly related to their ability to think mathematically. In early grade math classes, it is better to focus on building children's understanding of the numbers themselves.

#### Reflection

Write your responses down or discuss your ideas with your colleagues:

- Think of your own students. Which skills from the above table do you think they would find challenging?
  Why? How can you support them?
- What mistakes have you seen your students make as they learn to read and write numbers?
- What could you do to address these mistakes?
- Do you have any new ideas for teaching activities you would like to try for reading and writing numbers?

#### **Teaching Practice**

#### **ACTIVITY: READ AND WRITE NUMBERS**

This practice activity may be completed by teachers with their own class or with a smaller group of students.

Purpose: Read and write numbers up to 99.

Materials needed: 100 chart and writing materials (e.g., pen and paper or exercise book).

#### Instructions

- Say: Let's read the numbers in our 100 chart.
- Point to the numbers in the top row of the 100 chart and read them aloud with students: *1*, *2*, *3*, ... , *10*.
- Point to the tens in the right column of the 100 chart and read them aloud with students: *10, 20, 30, ..., 100.*
- Point to a variety of two-digit numbers in the 100 chart (e.g., 32, 56, 17) and invite students to read them aloud as a group or individually.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

• Say: Now I will say a number and I want you to write it down. Write the number 75.



• Say a variety of numbers up to 99 and ask students to write them down. Check their work. After they write them, write each number on the board or invite a student to do so.



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