

Schedule for Early Number Assessment (SENA) 2

Interview guidelines

General

- Have an assessment sheet for each student being interviewed
- Place the assessment sheet to the side of the work space and, if possible, out of the student's view. A small screen is useful for this purpose
- Note incorrect responses and any useful comments on the assessment sheet
- Where useful, ask students **how** they solved the tasks
- The interviewer should decide if it is necessary to give additional tasks or to abandon some of the set tasks
- **Do** provide wait time
- **Do** allow students to use their fingers
- **Do** ask students to put their hands on the desk so that you can see how they are working out the answers
- **Do** prompt to clarify students' thinking
- **Do** look and listen for strategies that students use
- **Adjust the language** if necessary to ensure student is not disadvantaged
- **Don't** teach during the interview
- **Don't** indicate right or wrong answers
- **Don't** count the counters out in front of the students

Aspect 3 (EAS): Addition and Subtraction (Tasks 1-2)

- These tasks are designed to elicit facile counting strategies. It is recommended that the student be operating at least at the counting on and back stage before administering SENA 2
- Administer the tasks verbally. Do not provide material
- Determine the strategies the student uses to solve each task

Aspect 1: Numeral identification (Tasks 3-12)

- Show the numeral cards in the order indicated

Aspect 1: Counting by 10s and 100s (Tasks 13 – 16)

- Stop if the student encounters difficulty

Aspect 3: Combining and partitioning (Tasks 17 – 18)

(Task 17)

- See if the student can produce at least three different number combinations that total 10

(Task 18)

- See if the student can produce both standard ($10 + 9$) and non-standard (e.g. $11 + 8$) partitionings of 19.

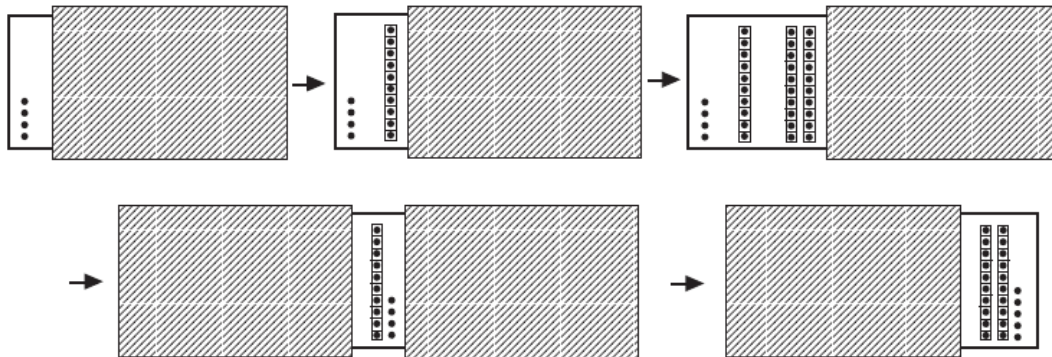


Aspect 4: Place value (Tasks 19 – 22)

(Task 19)

- Stop if the student counts on by ones. (The student would be determined to be at Level 0)

Uncovering task: Cover the dots and then uncover as follows:



Then cover all the dots and ask: How many more dots would I need to make 100?

Students are determined to be at Level 1 -Ten as a unit, if they successfully manipulate tens and ones in this task. If students successfully answer the final question, they would be at Level 2 -Tens and ones.

(Tasks 20 – 22)

- Ask the student to explain the strategy used
- Success with these tasks may indicate Level 2 (Tens & ones)
- Identify if the student used a split or jump method to solve the tasks

Aspect 5: Multiplication and division (Tasks 23 – 28)

(Task 23)

Present more than 12 counters, randomly placed to the student. The first instruction is designed to indicate if the student is able to form equal groups. The follow-up question is designed to show the counting strategy which the student uses to find the total.

(Task 24)

- If the student is able to recreate the groups and keep track of the count, he or she is typically demonstrating Level 4
- Note the strategy used. Does the student multiply, use repeated addition, use a double count or need to recreate the individual units using finger strategies?
- If the student is unsuccessful with the circles screened, remove the screen to make the markers for the units visible. This reduces the question to Level 3
- If necessary, reduce to a lower level by turning the circles over for a Level 2 or Level 1 response

(Task 25)

- This is an oral question
- Try to discover the student's strategy
- This task is designed to indicate:
 - Level 4 strategy (solving a quotitive division where the number of groups are not apparent)
 - a more advanced strategy (6×2 or $12 \div 2$)



(Task 26)

- Place a cover over the array as indicated and then display
- Try to discover the student's strategy
- This task is designed to indicate:
 - Level 3 strategy (counting hidden items by fives)
 - a more advanced strategy (7×5)

(Task 27)

- This task is designed to elicit students' Level 5 strategies (known facts, understanding multiplication and division as inverses, etc.)
- Part (c) can be done by adding 4 to the answer to part (a). Note whether the student is able to treat the question as multiplication or derives the result by addition

(Task 28)

- This task deals with "Fair share with remainder"
- Ask the student to explain his or her answer
- Note how the student deals with the "remainder"
- Additional prompt questions may be needed, for example
 - If the student answers "5" ask: *Are they all full?*
 - If the student answers "4" ask: *Were there any left over?*

Aspect 7: Area multiplication (Task 29)

- This task is designed to investigate the relationship between spatial structure and multiplication
- Note whether the student counts by ones, attempting to visualise the implicit structure, repeatedly adds, counts in multiples or uses multiplication
- Note the spatial structuring which the student uses to complete the drawing task
- Does the student
 - see the outside structure, but "lose" the middle structure?
 - see the rows, but not the column structure?
 - use a row by column structure?

Materials needed for implementing SENA 2

- One set of numeral cards (BLM)
- One card displaying the ten strip and arrangements of units, as shown in Task 19 (BLM)
- Two sheets of A4 cardboard for covering tasks
- Cards displaying addition, subtraction, multiplication and division questions (BLM)
- 20 counters
- One card displaying 5×7 array (BLM)
- One BLM per student showing 7×3 grid and one cardboard unit square
- Six circles displaying three dots each (BLM)
- One piece of cardboard large enough to cover six circles

