### ‘Say-Ask-Check’ Metacognitive Prompts Tied to a Word-Problem Cognitive Strategy (Montague, 1992)

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| **1. Read the problem.** | ‘**Say**’ (Self-Instruction) Target: The student reads and studies the problem carefully before proceeding.  
‘**Ask**’ (Self-Question) Target: Does the student fully understand the problem?  
‘**Check**’ (Self-Monitor) Target: Proceed only if the problem is understood. | Say: “I will read the problem. I will reread the problem if I don’t understand it.”  
Ask: “Now that I have read the problem, do I fully understand it?”  
Check: “I understand the problem and will move forward.” |
| **2. Paraphrase the problem.** | ‘**Say**’ (Self-Instruction) Target: The student restates the problem in order to demonstrate understanding.  
‘**Ask**’ (Self-Question) Target: Is the student able to paraphrase the problem?  
‘**Check**’ (Self-Monitor) Target: Ensure that any highlighted key words are relevant to the question. | Say: “I will highlight key words and phrases that relate to the problem question.”  
“I will restate the problem in my own words.”  
Ask: “Did I highlight the most important words or phrases in the problem?”  
Check: “I found the key words or phrases that will help to solve the problem.” |
| **3. ‘Draw’ the problem.** | ‘**Say**’ (Self-Instruction) Target: The student creates a drawing of the problem to consolidate understanding.  
‘**Ask**’ (Self-Question) Target: Is there a match between the drawing and the problem?  
‘**Check**’ (Self-Monitor) Target: The drawing includes in visual form the key elements of the math problem. | Say: “I will draw a diagram of the problem.”  
Ask: “Does my drawing represent the problem?”  
Check: “The drawing contains the essential parts of the problem.” |
| **4. Create a plan to solve the problem.** | ‘**Say**’ (Self-Instruction) Target: The student generates a plan to solve the problem.  
‘**Ask**’ (Self-Question) Target: What plan will help the student to solve this problem?  
‘**Check**’ (Self-Monitor) Target: The plan is appropriate to solve the problem. | Say: “I will make a plan to solve the problem.”  
Ask: “What is the first step of this plan? What is the next step of the plan?”  
Check: “My plan has the right steps to solve the problem.” |
| **5. Predict/estimate the Answer.** | ‘**Say**’ (Self-Instruction) Target: The student uses estimation or other strategies to predict or estimate the answer.  
‘**Ask**’ (Self-Question) Target: What | Say: “I will estimate what the answer will be.”  
Ask: “What numbers in the problem should be used in...” |
| **6. **Compute the answer. | **Say** (Self-Instruction) Target: The student follows the plan to compute the solution to the problem.  
*Ask* (Self-Question) Target: Does the answer agree with the estimate?  
*Check* (Self-Monitor) Target: The steps in the plan were followed and the operations completed in the correct order. | **Say:** “I will compute the answer to the problem.”  
**Ask:** “Does my answer sound right?” “Is my answer close to my estimate?”  
**Check:** “I carried out all of the operations in the correct order to solve this problem.” |
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| **7. **Check the answer. | **Say** (Self-Instruction) Target: The student reviews the computation steps to verify the answer.  
*Ask* (Self-Question) Target: Did the student check all the steps in solving the problem and are all computations correct?  
*Check* (Self-Monitor) Target: The problem solution appears to have been done correctly. | **Say:** “I will check the steps of my answer.”  
**Ask:** “Did I go through each step in my answer and check my work?”  
**Check:** “” |

Reference