

– MATH AND LDS –

Strategies for Promoting Math Problem-Solving

SCHEMA THEORY INSTRUCTION



- Explicit instructions of mathematical problem structures and problem-solving strategies.
- Schema-broadening instruction to teach students to generalize strategies to novel problems.

F.A.S.T. D.R.A.W.



- F - Find** what you are solving for.
 - Underline keywords.
- A - Ask** "What is important information?"
 - Find and circle number phrases.
- S - Set up** the equation.
 - Write equation with numbers in correct order.
- T - Tie down** the equation.
 - Solve the problem if you can, or solve using **DRAW**.
- D - Discover** the sign.
 - Circle the sign and say the name of the operation.
- R - Read** the problem.
- A - Answer** the problem or draw.
 - Answer the problem if you know how to, or draw pictures to solve it.
- W - Write** the answer.

COGNITIVE STRATEGY INSTRUCTION



1. **Read** the problem for understanding.
2. **Paraphrase** the problem in your own words.
3. **Visualize** a picture or diagram to accompany the written problem.
4. **Hypothesize** a plan to solve the problem.
5. **Estimate/Predict** the answer.
6. **Compute** the answer.
7. **Check** your answer.