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I-THINK I can problem solve.

From the text: Many teachers recognize the usefulness of cooperative learning during problem solving but struggle to implement it in the classroom. This article describes my experience (S. D. Lynch) with two different cooperative group instructional strategies that promote reflective discourse, think-pair-share, and THINK. Both strategies promote communication during problem solving and can be implemented easily in any math classroom. The think-pair-share model is familiar to many. Students first complete their mathematics problem individually, pair with another student to verbally communicate their reasoning and solution, and then share one of their explanations with other pairs. For years, this was the main cooperative learning framework I used in my fifth-grade through eighth-grade classes. However, I wanted my students to continue to communicate their mathematical thinking while developing stronger metacognitive skills, so I initially began using the THINK framework. The THINK framework is a cooperative grouping strategy that is guided by the following prompts: Talk about the problem; How can it be solved?; Identify a strategy to solve the problem; Notice how your strategy helped you solve the problem; Keep thinking about the problem. Does it make sense? Is there another way to solve it? Students who used THINK displayed greater improvement in mathematical problem-solving skills as compared with those who did not [*K. R. Thomas*, Teach. Child. Math. 13, No. 2, 86–95 (2006; ME 2007f.00074)]. Thomas then suggested that future research modify THINK to I-THINK, the "I" referring to students' independently thinking about the problem before group work commences. This article describes the I-THINK framework and addresses how it supports metacognition and mathematical communication. It also provides implementation strategies.

Classification: D53 D43
Keywords: teaching; lower secondary; problem solving strategies; instructional modes; cooperative learning; individual work; pair work; group work; communication; student student interaction; self-monitoring; understanding; planning; problem solving; checking