

## MAKING DECISIONS—IT'S WHAT YOU DO EVERY DAY!



*Henry S. Kepner, Jr.*

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Teaching mathematics involves making hundreds of instructional, management, and assessment decisions for each class period every day. In fact, sound instructional decisions are the backbone of effective teaching. But how and where do you find information to help you make these crucial decisions? The National Mathematics Advisory Panel (NMP 2008) encourages teachers to look for direction in substantive educational research. In addition, teachers should seek guidance from experienced and accomplished classroom teachers and other professional colleagues.

One of the roles of NCTM is to serve as a voice for that large collective group. Through its publications, Web site, journals, and positions, the Council shares the wisdom of other educators and can be a resource to inform your professional judgment, assist in your decision making, and be your professional colleague.

When you prepare a sequence of lessons, you bring together your knowledge of the mathematics and instruction, your best understanding of your students' knowledge of the prerequisite mathematics (and their needs and learning expectations), and your available instructional resources. So what does the lesson look like? When developing a key concept, you might design a student-centered lesson that builds on prior knowledge and uses examples and counterexamples under your guidance, thus "scaffolding" your students' learning of the new concept. At another time, you might design a teacher-directed lesson with an expectation that all students will develop proficiency in a mathematical skill under your direction.

Collaborating with colleagues in a learning community can help you sift through the many decisions that you need to make in planning your math lessons. An instructional team can encourage focused, active, and meaningful learning in a trusting environment when the team capitalizes on teacher-to-teacher interactions and access

to resources. The team can inquire into and validate what is done in practice. Thoughtful reflection with colleagues can give you a better understanding of how students' learning occurs, how you can differentiate instruction, and how your assessment practices can actively guide your instructional decisions.

Little (1990) underscores the importance of eliminating isolation from teaching and increasing teachers' participation in collaborative groups. Research shows that a professional learning community should—

- > identify the essential learning goals for each grade or course;
- > study standardized test results and other assessments, set student achievement goals, and establish specific benchmarks for improvement;
- > develop common formative and summative assessment items, and meet to discuss the resulting student work focusing on specific items and misconceptions; and
- > create a small "lesson study" environment by writing lessons based on discussions and observations of fellow teachers; adjust the plans on the basis of the collaborative follow-up discussions or student performance.

I have had the opportunity to observe the growing enthusiasm and support that teachers gain when they work with colleagues to provide more coherent learning experiences and interventions for students. As the NMP report suggests, when teachers do not find strong direction in research, they should consider—and value—recommendations and support from experienced teachers and other colleagues. If you do this every day, you will make a difference! I encourage all of you to share your successes and struggles in teaching mathematics with others in an environment dedicated to improving mathematics teaching and learning for all students. A professional partnership is a two-way commitment. Use NCTM as a partner and professional colleague, and share your successes, too!

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### References

Little, Judith W. "The Persistence of Privacy: Autonomy and Initiative in Teachers' Professional Relations." *Teachers College Record* 91 (Summer 1990): 509–36.

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