

# Think Before You Ask

A few practical steps employed consistently help students assume responsibility for learning and hold out hope for transfer to community needs.

Photograph by Stanley Bippus



*Should the roads be left snow-covered to accommodate dog mushers and snowmobiles or scraped down to the gravel for vehicle safety? Tanana students apply their problem-solving skills to real problems.*

Before the teachers and administrators of Tanana City School District began designing activities to increase our students' thinking skills, we outlined the following desired outcomes:

- students would assume more responsibility for completing assigned tasks;
- students would be able to create alternative solutions to a problem, with the quality and creativity of the alternatives improving with time and experience;

- students would use a variety of resources to find answers to questions and problems;

- student self-confidence would increase because of their ability to find answers to questions more quickly and easily.

Next we explained to students that the amount of teacher-directed instructions would decrease while the amount of questioning would increase. We told them they should no longer expect immediate answers to their questions. Further, we cautioned,

their teachers' responses now, more often than not, would be another question or a clue, rather than THE answer. This change caused some initial anxiety among the teachers, who were accustomed to providing all the answers. However, as teachers have seen how this technique transfers responsibility for learning to the student, their anxiety is dissipating.

Next, we organized the secondary school—85 students (90 percent Athabaskan Indians) in grades 7–12—into six teams. This year the staff set up the teams to ensure that each contained a cross section of students. The main function of the teams is to practice problem solving, with application to the real world.

Since we want the students to work on real problems, we send letters to community organizations asking them to submit actual problems they face. For example, the City of Tanana submitted the question of whether roads should be left snow-covered to accommodate the dog mushers and snow machines or graded down to the gravel for vehicle safety. And the Tozitha Native Corporation solicited suggestions for teaching shareholders how to manage their property so they will not sell their land when they obtain title to it in 1991. Problems such as these become the focal points in our problem-solving sessions every Thursday morning.

During these sessions, the principal selects one of the problems and presents it to all the teams. Each team is required to think through the prob-

lem and imagine three possible solutions. For each possible solution, each team then lists three reasons why the solution could work and three reasons why it might not. Next each team presents its plan to the other teams. The plans, along with the names of team members, are then sent to the organization that originally submitted the problem.

In addition to the principal's Thursday morning sessions, during last period every other Friday, we conduct another kind of problem-solving activity. The most effective and popular, for example, is the "educational scavenger hunt." To organize a scavenger hunt, each teacher contributes an idea that reinforces through application a skill being taught in class, such as the following:

- Find the elevation on the Mission Hill bench mark.

- Calculate the distance from the airport to the VOR station (the white cone just past the landfill).

- Bring in a green liverwort, not a dry one.

- Determine the lot number for the playground used by the Tanana City School.

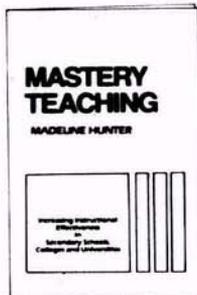
Once the students have their lists of items to find, they are given 90 minutes to locate as many as possible. The team finding the most items, or the team finding all the items first, wins the scavenger hunt.

At the conclusion, the faculty member in charge holds a review session with the students, inviting them to explain their problem-solving strategies. The winning team earns points in a team competition sustained throughout the school year. This activity generates much excitement and teamwork.

To help achieve our goals, even the office staff is learning to answer a question with a question when an answer is obvious; for example: What time is the gym open? Are students excused for the dog races? It's amazing how adults as well as students ask questions they could have answered with a little thought. Students have now begun to respond to each other in a questioning manner.

Tanana students are asking their teachers fewer questions because they are finding more answers themselves, and the questions they do ask are more probing and thought-provoking. Are we pleased with our progress toward our goals? Do you need to ask? □

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