

## Norm Green

### **Inquiry Strategy to Deal with a Puzzling Problem.**

In this strategy, a puzzling problem is presented to students. They ask questions to gain more information, but only Yes/No responses are given. This requires children to ask more effective questions. The aim of this strategy is to get students to search out and process data, to apply logic to information and to inquire in a disciplined way. The emphasis is on the inquiry process rather than on finding one particular solution to a problem.

The following steps provide a guide to using this strategy, but they may be modified to suit the needs and abilities of a particular class.

1. Present the problem: The teacher poses a problem to the student that is unusual or surprising.
2. Data gathering: Students seek to find a solution by asking questions to which the teacher can only answer "Yes" or "No". The teacher may ask the child to rephrase the question, so that a Yes/No response can be given. The whole class or an individual child could summarize the inquiry up to this point. The teacher can help the summarization by noting Yes/No responses on the blackboard or a chart.
3. Group Analysis and Research: Students can break into groups to analyze the problem to date. They may need to do some research in order to reach more accurate conclusions.
4. Formulating Rules or Explanations: Students, individually or in groups, put forward explanations to solve the problem.
5. Analyze the Inquiry Process: The teacher asks the children to explain their conclusions in the light of the information that has been deduced. This helps children to determine the relevance and validity of their explanations. It also encourages students to be meta-cognitive (to think about their thinking), as they analyze the thinking / inquiry process. The process is predominant here, not necessarily the correct answer. The teacher may then give his/her explanation and show how it fits the information found out.

The generalizations can be written on charts or on a blackboard and illustrated with appropriate cards. Alternatively, and better still, a concept map or web could be used.

The assumptions underpinning this strategy are :

- knowledge is tentative;
- the process of inquiry can be directly taught;
- the development of knowledge and thinking processes are facilitated by help from peers and by teacher modeling.