

# Hypothesis Setting

Formulating questions in response to the data (e.g., Why are our fifth-grade students proficient in Language Arts, but grades three, four, and six are not?) and considering responses to these questions, often by consulting additional data, may lead to possible explanations for observed data patterns. These explanations are *hypotheses*.

- Guiding Questions for Generating Hypotheses:
  - Why are our children performing the way they are?
  - What in our systems and practices is causing our children to perform in this way?
- First Steps:
  - Set ground rules. Team members will have their ideas and biases about why things are the way they are. Determine ground rules and enforce them.
  - Record hypotheses, document evidence, and accept or reject them.

<b>SAMPLE HYPOTHESIS SETTING</b>	
<b>Identified Problem or Success:</b> <i>Achievement levels in math drop grade by grade until they are at very low levels in Grades 6, 7, and 8. They pick up only slightly from Grades 9 to 12.</i>	
<b>Hypothesis</b>	<b>Evidence (in support or to the contrary)</b>
There are more special education students each year in regular classes, and they pull our scores down.	REJECT. We checked special ed enrollments. They do increase from Grades K–3, but stabilize until Grade 6, and then decline to Grade 12.
Our math teachers in the intermediate and middle levels have not had the proper training to teach the current math standards.	ACCEPT AS A POSSIBILITY. We looked at the licenses, and the teachers do have appropriate credentials. However, we looked at the sequence and record of professional development activities, and our district has provided no math professional development in 10 years.
Our standards are just too high. The tests are just too difficult, year by year.	REJECT. We looked at test results nationally and in neighboring districts. Although mathematics performance is low nationally and statewide, our performance is particularly low compared to our neighbors and to the national sample. We have also studied the items and concur that the items are fair for the grade levels assessed.

## **HYPOTHESIS SETTING for ROOT CAUSE**

**Identified Problem or Success:**

<b>Hypothesis</b>	<b>Evidence (in support or to the contrary)</b>