TOOL 3.1

Examples of norms for data discussions

EXAMPLE #1

- Create a focus on instruction.
- Reinforce common core curriculum.
- Focus on strengths as well as areas of concern.
- Emphasize common learning based on standards.
- Identify curricular areas that need attention.
- Provide objective indicators of effectiveness.
- Promote collaboration.
- Set stage for action plans to improve student learning.
- Help create an "open mind."

EXAMPLE #2

- No judgments.
- No blaming.
- Focus on what the data tells us about current practice.
- Focus on problem solving and the future.
- Focus on results for students.
- Consider all possibilities.
- Maintain confidentiality.

TOOL 3.2

Discussing the data

1. Describe what you learned when you looked over your individual student scores:

   - What do the data say?
   - What are the facts?
   - What are some of your students' areas of strength?
   - What are your areas of concern?
   - What are your questions?

2. Describe what you discovered in the group data:

   - What surprises you or jumps out at you in your analysis?
   - What patterns do you find among teachers?
   - What do you think might explain these patterns?

3. What might we include in an action plan to support the learning of our students and teachers?

TOOL 3.3

Fishbone diagram

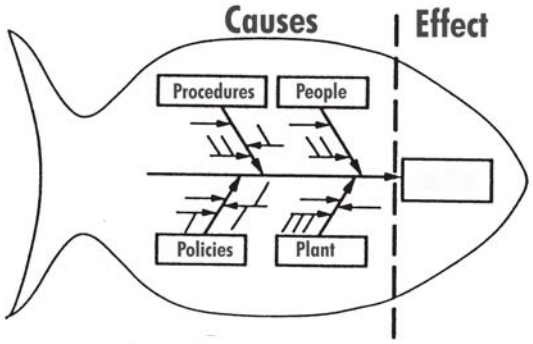
This Quality Management Tool was developed by Kaoru Ishikawa and is sometimes called the Ishikawa Diagram or the Cause-Effect Diagram. It is designed to help take results from data analysis and to identify possible root causes for identified problems. Data identify the problems. They do not identify the cause of the findings until further analysis is conducted. It is through analyzing the probable root causes that teams will find their leverage point.

To use the Fishbone Diagram to identify possible causes of an identified problem, write the problem or current state, in specific terms, in the head of the fish. On the big bones of the fish, list major factors that might contribute to the current situation. For example, 65% of the male students are reading two or more grades below level. Some of the major factors related to this problem might be instruction, availability of reading materials, learning styles, and curriculum. It is possible to consider other areas, such as demographics, parent involvement, etc.; however, spending time working in these areas may not yield actions that school staff can take to address the identified problem. It is important to note that there are external areas of concern, such as the number of male students who live in households headed by females. Yet, this area is not one teachers can change. While it is possible to influence it in some way, identifying this as the root cause leaves teachers little room to act. It is helpful, therefore, to focus the bulk of the root cause analysis on areas of influence, those areas school staff can directly impact through their actions and interactions with students each day at school.

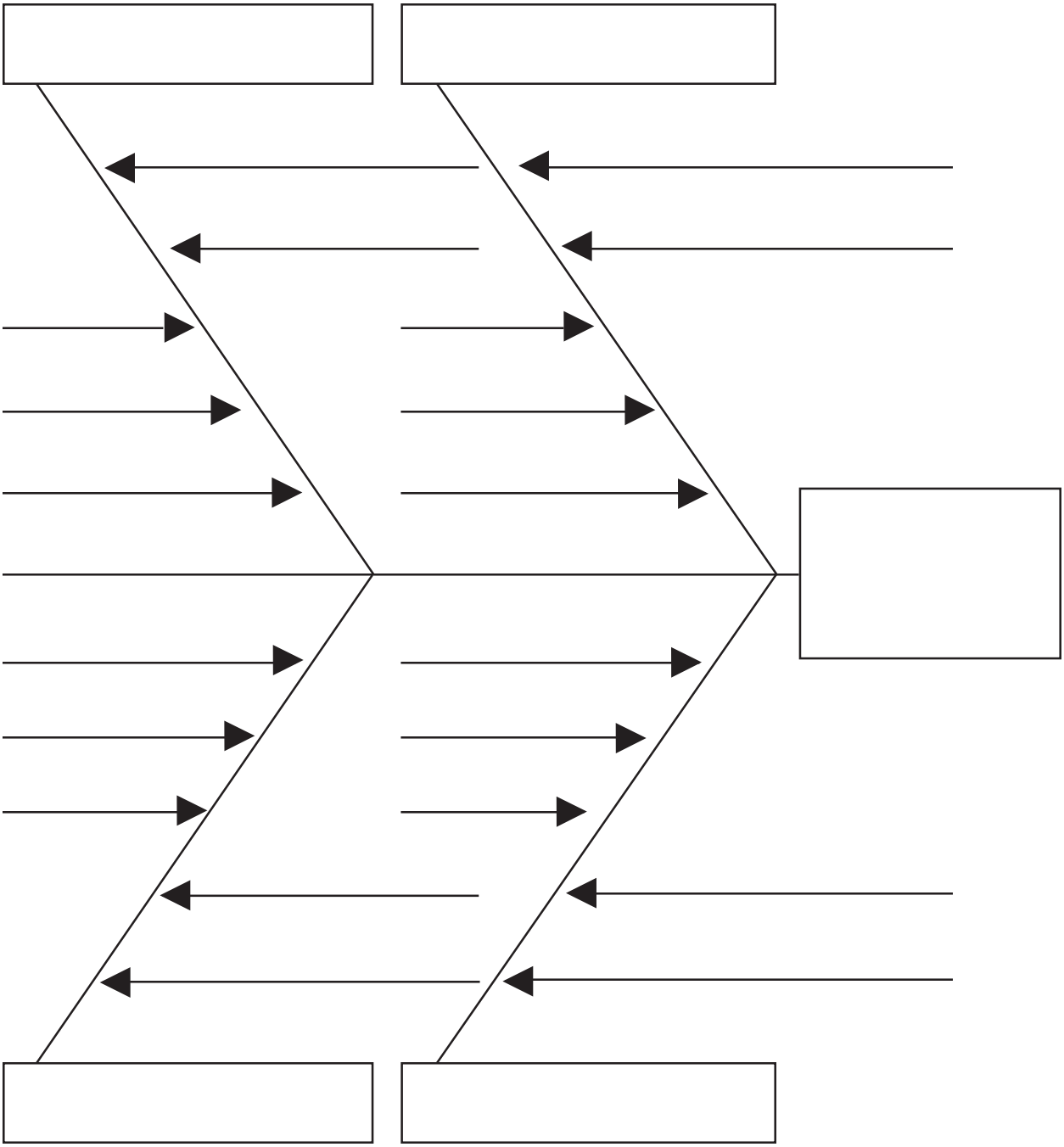
On the small bones of the fish, the team identifies specific areas related to the major factors. For example, availability of reading materials, teachers might write *classroom and library reading materials of interest to male students*. After identifying as many specific factors as possible, team members circle or mark those factors they believe have the greatest impact on the current state. In essence, they are formulating hypotheses about what might be causing the current state. For example, a hypothesis might sound like this: *In classrooms where there are reading materials on topics of interest to males and where students have easy access to these materials, male students' reading scores are higher than in classrooms where this type of resource is not readily available*.

Teams then examine additional data to confirm or disprove their hypotheses until they find one or two that hold up. It is from these hypotheses that they begin their action planning. If, in fact, the above hypothesis was confirmed, their actions would center on how to make more high-interest reading materials easily accessible to male students.

The next page has a blank fishbone diagram template for teams to use with their own problems.



Fishbone diagram



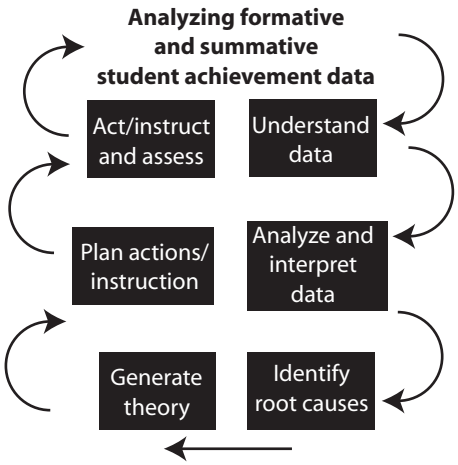


Figure 3.1: Analyzing Formative and Summative Student Achievement Data