# ANALYZING QUESTIONNAIRE RESULTS

**C3**
APPENDIX

**Purpose**     The purpose of this activity is to guide staff in analyzing questionnaire data.

**Target Audience**     Leadership Team or Data Team can analyze the questionnaires, aggregate the open-ended responses, and take them to the full staff for analysis.

**Time**     Approximately one hour.

**Materials**     Copies of the questionnaire results and questionnaire study questions. Chart pad paper and markers.

## Overview

When creating a questionnaire, one needs to make sure the content and design facilitate effective data analysis and effective use of the results. The structure of the questions dictates how the responses will be analyzed and how the results will be presented.

If we want to be able to see all items in relation to each other, all items need to use the same scale and be phrased in the same way (e.g., stated positively). A single scale for all items allows us to analyze responses to all questions along a single point of orientation (scale) and to place the results together in the same graph.

If different scales are used, and if positively and negatively phrased questions are combined in the body of the questionnaire, different methods are required to analyze and present the results. Like-scaled and/or phrased items need to be grouped into separate files for analysis of results and into separate graphs for presentation.

Sometimes items are different enough that they warrant using different scales and phrasing, but most often phrasing can be adjusted to the use of a single scale. Figure C3-2, shown on the following page, breaks down the steps for analyzing the results of the questionnaire.

## Process Protocol

Establish analysis points that can consistently provide useful and valuable information for each school or building. Disaggregate or sort results by demographics, by year, and by other specific characteristics of the group being surveyed to lead deeper and deeper into issues.

Typical analysis descriptions follow:

*Analysis of total survey respondents* provides a general overview of questionnaire results. This information plots general differences among items and illustrates some general thematic ties among items.
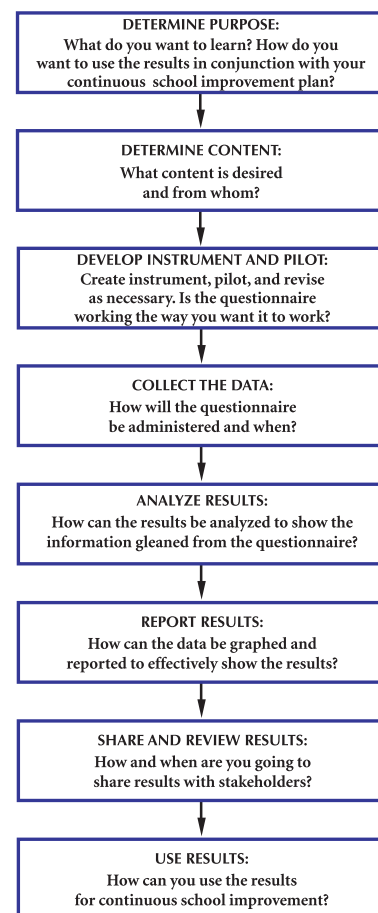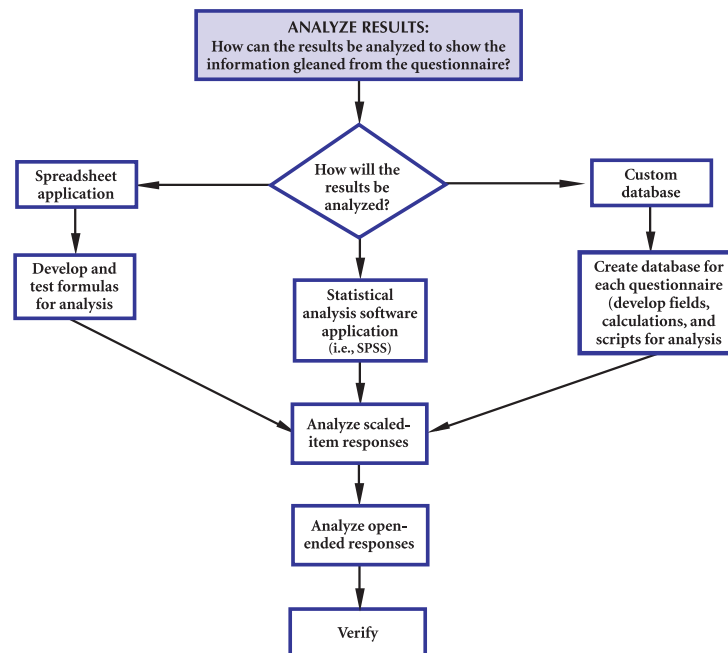
### Figure C3-1

**QUESTIONNAIRE PROCESS OVERVIEW**

**DETERMINE PURPOSE:**
What do you want to learn? How do you want to use the results in conjunction with your continuous school improvement plan?

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**DETERMINE CONTENT:**
What content is desired and from whom?

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**DEVELOP INSTRUMENT AND PILOT:**
Create instrument, pilot, and revise as necessary. Is the questionnaire working the way you want it to work?

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**COLLECT THE DATA:**
How will the questionnaire be administered and when?

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**ANALYZE RESULTS:**
How can the results be analyzed to show the information gleaned from the questionnaire?

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**REPORT RESULTS:**
How can the data be graphed and reported to effectively show the results?

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**SHARE AND REVIEW RESULTS:**
How and when are you going to share results with stakeholders?

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**USE RESULTS:**
How can you use the results for continuous school improvement?

**Figure C3-2**
**ANALYZING QUESTIONNAIRE RESULTS**



## Process Protocol *(Continued)*

*Analysis by demographic variables* allows schools to isolate differences in responses by subgroups within the school population. Looking into general demographic subgroups, such as gender, ethnicity, and grade level, provides valuable information about the perceptions of questionnaire respondents. By selecting demographic variables carefully, schools can tie perceptions data to demographic, student learning, and school process data to acquire a clearer picture of how perceptions/climate/ environment influence learning.

*Analysis by year* is perhaps the most powerful level of analysis. Looking at changes over time validates the work a school has done and helps staff members realign their actions. It should be noted that strategies for change should not focus on questionnaire results on their own; perceptions data, along with demographics, student learning, and school process data, can tell the whole story.

When disaggregating or sorting any data for analysis, one needs to take care not to provide analyses where individuals can be identified. Providing any analysis of perceptions data with subgroups fewer than eight can impact the interpretation of the analysis. Potential risks include alienating questionnaire respondent groups by creating a feeling of negative accountability by identifying individuals, or by having readers put undeserved emphasis on results during interpretation.

### *Complex Analysis or Simple Statistics?*

*Descriptive statistics,* simple summaries used to explain the basic characteristics of the data, are very powerful for analyzing school perceptions. We want to see items in relationship to each other, and to know if different groups are responding to processes in the same or different ways. In addition, producing average statistics for each item, and then eyeballing the relationship of items to each other, can reveal differences and highlight themes. Schools want to know what they are doing well, what they can do better for students, and to know what actions to take. Descriptive statistics can help schools do all of these.

## Process Protocol *(Continued)*

"Significant differences" determined through complex statistical analyses often cement the differences rather than provide information on which to change. For example, if questionnaire results were "significantly different" for classified staff versus certificated classroom teachers on an item related to the school having a shared vision, it would not inspire all staff to work together to revisit and make the vision shared or even to look at other items. It might be perceived that one group should "get on board."

If descriptive statistics showed that items related to working closely together, sharing decisions, and planning were low, in addition to a shared vision, the whole staff would be more likely to work together to revisit the vision and redefine the major parts, such as sharing decisions, planning, collaboration, and analyzing the results of the questionnaire.

## Comments to the Facilitator

At times it seems that unending streams of analyses can be created. The key is to determine what small percentage of these analyses are actionable, and then decide what can be avoided as redundant. Avoid burying users with analyses that do not prompt them to see their results easily, uncover new interpretations of the results, or provide further clarification of the results through disaggregations. We want to focus on analyses that get to the point and relay the results effectively. Perceptions data, unlike other forms of data, may not need to be disaggregated down to multiple subgroups in order to take effective action.

When creating analyses, ask yourself if the analysis is telling you anything beyond what has already been created, or if it is helping you see the data in a new way. Instead of focusing on presenting analyses that are redundant, it would be better to focus energy into other areas of data, tying the perceptions data to other measures. After summarizing the data, integrate into the data profile.

*Reference:* Excerpts taken from from V.L. Bernhardt & B.J. Geise (2009). *Questions to Actions: Using Questionnaire Data for Continuous School Improvement.* Larchmont, NY: Eye On Education, Inc.