Guidelines for Analyzing Data Using Microsoft Access

Microsoft Access provides users with basic analytic tools for summarizing, grouping, and viewing data. Reports, queries and pivot tables are all examples of tools provided by Access for this purpose. Basic data dumps in the form of reports have been created and are available for the main survey and each of the optional survey modules.These can be useful for data entry quality control checks and quick visual checks of missing data. Other tools such as queries and pivot tables are better suited for summarizing and grouping data among and across the database tables associated with each module. While Access does provide a query wizard, it is helpful to have some famialarity with Access query syntax and programming concepts to correctly combine and output the data of interest. To create meaningful summaries of data without a programming foundation, pivot tables have been provided. Pivot tables provide an interface for which analyses can be performed on the survey data. Data for both the main survey and all the optional survey modules can be accessed individually via pivot tables. Additionally, there is a pivot table which can be used to analyze data across all the survey modules.

In order to summarize data that are of interest to your agency, the pivot table needs to be modified for the desired analysis. Pivot tables can be highly customized for a more complex analysis but they can also provide simple and useful analyses such as frequency tables or crosstabulations. In a basic frequency table, the pivot table provides the number of respondents for each category of a response variable as well as an overall total. The numbers can be expressed as counts or as percentages depending on how the table is specified. Pivot tables are highly flexible and offer many options for viewing response data including sums, averages, variances and other calculations. Below is a screenshot of a basic frequency table created using the pivot table interface for the Social and Emotional Well-Being module (Figure 1.1).

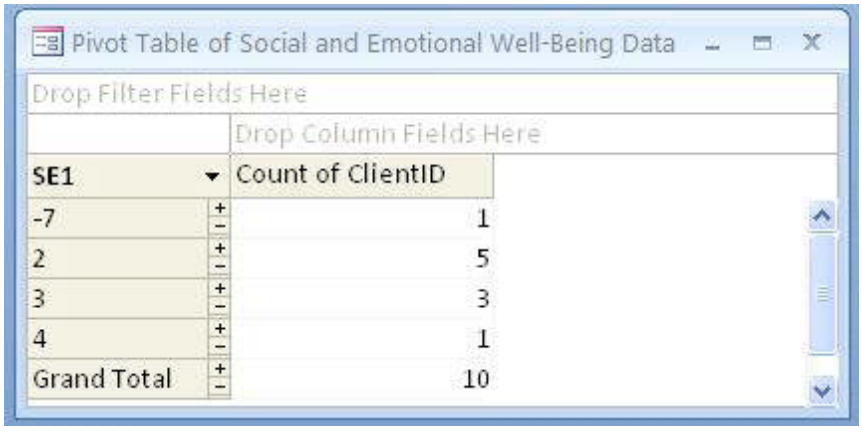

Figure 1.1

Looking at the results, 10 clients were asked question SE1 from the Social and Emotional Well-Being module. Of the 10 respondents, 1 refused to answer (response code -7) and the remaining 9 respondents' answers are distributed among the response codes 2, 3 and 4. By highlighting the 'Count of ClientId' column and selecting the '%' icon from the 'Show As' menu, the pivot table will convert the count of respondents to a percentage of respondents (Figure 1.2).

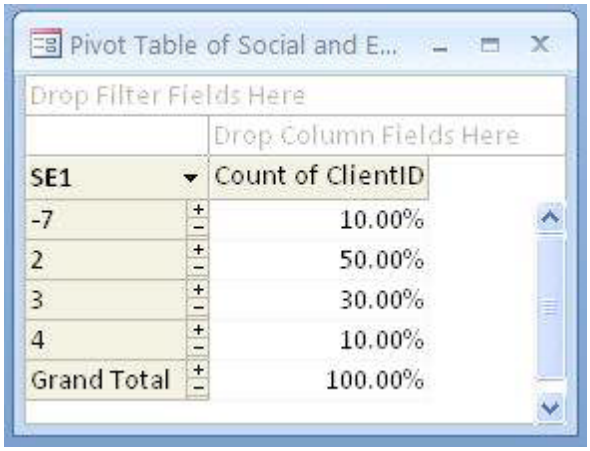

Figure 1.2

To change the analysis, fields (questionnaire items known as variables or fields) can be removed and added from all four areas of the pivot table. To remove a field, highlight it and press delete or right click with the mouse anywhere inside the pivot table for the pop-up menu and click 'Remove'. To add one or more fields, right click with the mouse anywhere inside the pivot table for the pop-up menu and click 'Field List' to activate the Pivot Table Field List selector control. Field names can be dragged and dropped directly onto any area of the pivot table, depending on the desired analysis.

For more information about using pivot tables, please refer to the Microsoft Access Help files available from within this application.