## Task Analysis for Creating Graphs in Excel ${ }^{\text {TM }}$

## Creating a Line Graph

1. Open Excel ${ }^{\text {TM }}$ and start a new "Blank Workbook"
2. In Cell A1, type the title for your independent variable (e.g. the EBP implemented)
3. In Cell B1, type the title for your dependent variable/the behavior you are monitoring (tantrums, initiations, following verbal directions, etc)
4. Enter the dates, labels or numbers for each independent variable data point in column A, starting with cell A2 and continuing downwards until all data points have been entered.
5. Enter the numbers or percentages for each of the dependent variables/behaviors monitored beginning in cell B2 and descending until all data points have been entered.
6. One you have entered all data points, highlight all of the cells that contain the data points (including the titles-A1/B1).
7. After all of the data is highlighted, select "Insert" from the menu bar in the upper left corner and scroll down to select "Line".
8. Select the choice "Line with Markers"
9. The graph will appear on your workbook
10. If you do not wish to keep the diagonal line, click on it and select "delete"

## To Separate Data Points

1. Hover the cursor over the data point to the left of where you would like the line break to occur and left-click on it. All of the line's data points will be highlighted. Left-click on the same point again and then it will be the only point highlighted.
2. Right-click on the next data point to the right and select "Format Data Point".
3. Left-Click on the "Line Color" and select "No Line". Left-click "close".
4. Right-click on the key on the right side of the graph and select "Delete".
5. To draw a line separating two phases in treatment that you have already separated, click "insert", then "shapes", the select the diagonal line icon which is the first selection under the word "Lines".
6. Use the cursor to draw a line in the place between your two sets of data. If you want the line to be a straight vertical line, hold down the "Shift" key while you do this.

## One Student Example: Use of Visual Schedule



## Axis Titles ( X and Y )

1. Click on the graph to select it and then select "Chart Tools" from the menu that appears on the screen.
2. Under "Chart Tools", scroll to "Layout" and then select "Axis Titles". Then select "Primary Horizontal Axis Title" and "Title Below Axis. Highlight "Axis Title" in the test box below the XAxis and type the name of your independent variable (e.g. Visual Supports)
3. Click the "Layout" tab under "Chart Tools" and click on the "Axis Title" and select "Primary Vertical Axis Title". Select "Rotated Title", then highlight "Axis Title" in the text box next to the $Y$-axis and type in the identity of the dependent variable/behavior being measured (e.g. Initiations, tantrums)
4. Click on the graph title text box above the graph and highlight the text inside. Type the title for your graph.

## Finish Formatting

1. To remove horizontal lines, right click on any of the horizontal lines. They will all be highlighted. Select "Delete"
2. To change the color of the data points right click on any data point and select "Format Series". Click "Marker Fill" and "Solid Fill". Select your desired color from the "Fill Color" box.
3. To change the color of the line, click "Line Color" and select "Solid Line" to change the color for the connecting line.
4. To add a trend line, right click on any data point and select "Add Trendline" and the line will appear.

## Creating a Bar Graph

1. Open Excel ${ }^{\text {TM }}$ and start a new "Blank Workbook"
2. In Cell A1, type the title for your independent variable (e.g. the EBP implemented)
3. In Cell B1, type the title for your dependent variable/the behavior you are monitoring (e.g. fidelity of implementation)
4. Enter the data for the graph's " $X$ " and " $Y$ " axes. Type the data into the A column (starting at cell A2 and continue downwards) for the " $X$ " axis and the data into the B column (starting at cell B2 and continue downwards) for " $Y$ " axis .
5. Once you have entered all of your data, "select" all of the cells containing the data. Do this by clicking on the A1 cell and hold down "Shift" and then click the bottom value in the B column.
6. Click the "Insert" tab at the top of the Excel window, just right of the "Home" tab
7. Click the "Bar Chart" icon. This icon is in the "Charts" grouping below the "Insert" tab and is represented by a series of three vertical bars.
8. Click one of the bar graph options. Some options include
a. 2-D Column-Simple Vertical Bars
b. 3-D Column-3D Vertical Bars
c. 2-D Bar-Simple Horizontal Bars
d. 3-D Bar-3D Horizontal Bars
9. To customize the appearance, click on the graph and then use the "Design" section at the top of the Excel window to select various templates, colors and/or graph formats.
10. To edit the title, select the existing title on the graph and type in the title you wish to use.
