


Collecting and Analyzing Tier 3 Data: Tools, Tips, and Tricks

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Objectives

- Better understand where data collection fits within Tier 3
- Practice using a variety of data collection forms
- Better understand the importance of data visualization
- Practice making graphs based on the data collection forms
- Practice using computer-based tools for data visualization




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Expectations

- Respect
- Participate
- Share



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Data Collection Example #2

Student: [Blank] Date: [Blank] Data Collection Sheet

Activity/Time	Target Behavior Observed	Physical Aggression (A)	Physical Aggression (Tally (how many))	Elaps	Elaps (How many?)	Property Destruction	Tally/Response (How many or how long?)
8:00-8:15 AM	Y/N	Yes/No		Y/N	Answer	Y/N	Tally/Response
8:15-8:30 AM	Y/N	Yes/No		Y/N	Answer	Y/N	Tally/Response
8:30-8:45 AM	Y/N	Yes/No		Y/N	Answer	Y/N	Tally/Response
8:45-9:00 AM	Y/N	Yes/No		Y/N	Answer	Y/N	Tally/Response
9:00-9:15 AM	Y/N	Yes/No		Y/N	Answer	Y/N	Tally/Response
9:15-9:30 AM	Y/N	Yes/No		Y/N	Answer	Y/N	Tally/Response
9:30-9:45 AM	Y/N	Yes/No		Y/N	Answer	Y/N	Tally/Response
9:45-10:00 AM	Y/N	Yes/No		Y/N	Answer	Y/N	Tally/Response
10:00-10:15 AM	Y/N	Yes/No		Y/N	Answer	Y/N	Tally/Response
10:15-10:30 AM	Y/N	Yes/No		Y/N	Answer	Y/N	Tally/Response
10:30-10:45 AM	Y/N	Yes/No		Y/N	Answer	Y/N	Tally/Response
10:45-11:00 AM	Y/N	Yes/No		Y/N	Answer	Y/N	Tally/Response
11:00-11:15 AM	Y/N	Yes/No		Y/N	Answer	Y/N	Tally/Response
11:15-11:30 AM	Y/N	Yes/No		Y/N	Answer	Y/N	Tally/Response
11:30-11:45 AM	Y/N	Yes/No		Y/N	Answer	Y/N	Tally/Response
11:45-12:00 PM	Y/N	Yes/No		Y/N	Answer	Y/N	Tally/Response

COMMENTS (DESCRIBING OTHER BEHAVIOR, OR CONCERNS)

Purpose: Capture detailed information across behavior types, rewards, duration, and success of redirection.

Best Use:

- For complex Tier 3 cases needing deeper insight.
- Integrates reward tracking with behavior data.

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Data Collection Example #3

Student Name: [Blank] Week of: [Blank]

Time Activity	Monday	Tuesday	Wednesday	Thursday	Friday
8:00-8:15 AM	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other
8:15-8:30 AM	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other
8:30-8:45 AM	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other
8:45-9:00 AM	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other
9:00-9:15 AM	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other
9:15-9:30 AM	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other
9:30-9:45 AM	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other
9:45-10:00 AM	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other
10:00-10:15 AM	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other
10:15-10:30 AM	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other
10:30-10:45 AM	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other
10:45-11:00 AM	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other
11:00-11:15 AM	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other
11:15-11:30 AM	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other
11:30-11:45 AM	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other
11:45-12:00 PM	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other	Peak/Scarcity/Other

Purpose: Document specific behavior types across the day and week.

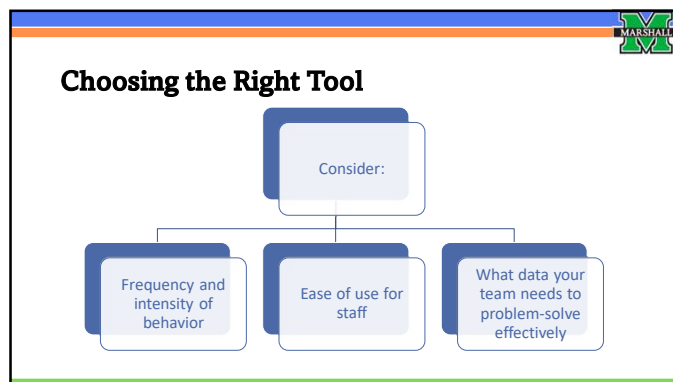
Best Use:

- For high-frequency, low intensity behaviors.
- Effective in identifying consistent patterns and triggers.

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What do we do once we collect the data?

- Analysis and Decision-Making!
- Goal is to find patterns and figure out where the pattern is disrupted
- Visualization is crucial!



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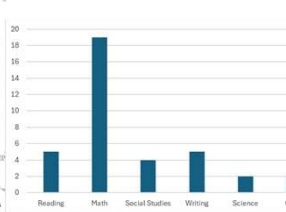
Which is easier to analyze?

Frequency Data Sheet

Student: Mark S. Week: 10/12 - 10/16

Behavior: *falling out without saying word during SWM + large group instructions*

Time/Activity	Monday	Tuesday	Wednesday	Thursday	Friday
Reading					
Math					
Social Studies					
Writing					
Science					
Other					
Total	9	12	3	9	5



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Back to Math Class... Analysis Basics

- Frequency
 - The total number of something
 - Add all of the data together
 - "Last week Student A had 7 incidents of physical aggression."
- Averages
 - Looking for a "typical" number to describe a data set
 - Add the data points together and divide by the of data points.
 - "Last week on average, the student engaged in 2 physical aggression incidents a day."

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Biower

A selection of 10 Data Visualization types

KPIs

Tables

Bar charts

Line charts

Donut charts

Tree Maps

Bullet Charts

Scatter plots

Geo Maps

Radial charts

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Tips for Good Graphs

- Make sure scales are consistent
- Scales should be the same when comparing
- Distinct colors for multiple variables with a legend
- Remember axis labels and titles
- Avoid too much information and 3D bar graphs
- Start Scales at Zero

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Graphs Example

Number of sales for each product

Number of sales for each product

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Tools for Data Visualization

- Pen and Paper (graph paper preferred)
- Excel
- Tableau
- PowerBI
- Google Charts
- Many Others!!

A Pareto Chart with 'Sub-Category' on the x-axis and 'Profit' on the y-axis. The chart shows a series of orange bars of decreasing height, with a blue line graph overlaid representing the cumulative profit. The x-axis categories include 'Other', 'Travel', 'Food', 'Retail', 'Health', 'Energy', 'Technology', 'Automotive', 'Aerospace', 'Defense', 'Telecom', 'Media', 'Pharmaceuticals', 'Chemicals', 'Agriculture', 'Manufacturing', 'Utilities', 'Transportation', 'Real Estate', 'Healthcare', 'Education', 'Retail', 'Food', 'Travel', 'Other'.

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Excel Calculator Examples


Two screenshots of Excel spreadsheets. The left screenshot, labeled 'Data Collection Example 1', shows a dashboard with multiple charts including bar charts, line charts, and a pivot table. The right screenshot, labeled 'Data Collection Example 2', shows another dashboard with various charts and data tables. Both examples demonstrate the use of Excel for data analysis and visualization.

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Excel Calculators



- Calculator/Visualization tools for Data Collection Example #1 and #3
- <https://www.marshall.edu/bmhtac/2025-tackling-tier-3/>

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Thank You!

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Complete your evaluations!




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