

The Joy of Data: Rules and Conventions
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 [updated: Thursday, November 28, 2024]

"The young man knows the rules, the old man knows the exceptions."
 ---Oliver Wendell Holmes (1841-1935)

Introduction:

Using computing technology to analyze data involves making design decisions about “rules” and “conventions”. A rule is generally something that must be followed. A convention is generally something that has some element of freedom in it. A rule is often set by someone else (this is sometimes referred to as a requirement, or more technically, fiat). A convention is often set by you (this is sometimes referred to as choice, or more technically, agency). Distinguishing between the two is always important but occasionally difficult. Sometimes, we choose a middle ground that lies somewhere between a rule and a convention: “best practice” (this is sometimes referred to as common use, or more technically, a contextual norm.)

The following are examples of rules and conventions common in business analytics.

Design Choice	Low-level	High-level	Key Question(s)
<i>Data</i>	You have access to an entire dataset.	You have access to a summary of a dataset.	Is an original analysis needed? Will the dataset fit into a single Worksheet?
<i>Analysis (calc. mean)</i>	Use =sum()/count()	Use =average() or Analysis Addin	What does the reader or listener know or use?
<i>Business Context</i>	The company or organizational unit is a very technological firm.	The company or organizational unit is <u>not</u> a very technological firm.	Do you know the company and industry culture well enough?
<i>Written</i>	The company norm is to always “show your work.”	Individuals make the assumption that you have double-checked your work.	Can you expect your written to be circulated widely in the organizational unit, company, or industry?
<i>Presentation</i>	You have yet to establish that you	You have established your general credibility.	Do you know who will be in the audience on

	can use evidence well.		the day of the business meeting?
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