Self-Study Plan: Introduction to Data Visualization (Beginner)

This self-study plan covers basic information about data visualization. The content is not exhaustive. It is meant to introduce you to the issues relevant to your work. Resources listed in this self-study plan are free unless otherwise noted. It includes videos for you to watch, documents to read, and online courses.

Objectives of this Self-Study Plan

After you complete this exploration, you will be able to:

- Define key concepts behind the science for effective data visualization.

- Describe elements required to present successful data visualizations.

- Practice making data visualizations in Excel.

- Explore how to communicate about the connections between sexual violence and oppression.

- Conduct a self-evaluation of your data visualization skills.

☐ **STEP ONE: Get inspired by this TED Talk (McCandless, 2010).**

Title: The Beauty of Data Visualization TED Talk

Time: 18 minutes

Notes: David McCandless turns complex data sets (like worldwide military spending, media buzz, Facebook status updates) into beautiful, simple diagrams that tease out unseen patterns and connections. Good design, he suggests, is the best way to navigate information overload – and it may just change the way we see the world.

☐ **STEP TWO: Review this guide (Emery, 2014).**

Title: The Data Visualization Design Process: A Step-by-Step Guide for Beginners

Time: 20 minutes of reading + 20 minutes of short video tutorials

Notes: This online guide by Ann K. Emery walks users through the full process of creating a data visualization, from understanding your audience to sharing your dataviz.

☐ **STEP THREE: Watch a recording of this introductory course on effective data visualization from NSVRC.**

Title: Presenting Data Effectively (Evergreen, 2021c) (Contact prevention@nsvrc.org for access and handouts.)

Time: Two hours 37 minutes

Notes: This recording provides the science behind why we need to present data effectively. Viewers will walk through Dr. Stephanie Evergreen's four-step visualization process to help structure efforts at making visuals. Along the way, you will be asked to consider how your audience will engage with visuals, which chart type will best tell the story in the dataset, and how to leverage easy-to-learn design skills to sharpen up the point in the visual. The best part? This webinar uses data from actual Rape Prevention and Education programs.

☐ STEP FOUR: Learn how to make different charts and graphs to share your data with this Excel tutorial (Evergreen, 2021b).

Title: How to Build Data Visualizations in Excel

Time: 45 minutes to explore 19 different charts and graphs

Notes: Includes step-by-step instructions on how to create data visualizations in Excel from Dr. Stephanie Evergreen.

☐ STEP FIVE: We know that sexual violence is inextricably tied to oppression, but how do we communicate effectively about this? Learn more with this infographic (National Sexual Violence Resource Center [NSVRC], 2020).

Title: Sexual Violence and Oppression

Time: Five minutes

Notes: Learn about how to frame statistics about sexual violence and oppression within the larger landscape of health inequities.

☐ STEP SIX: Thinking about making one-page reports? Explore this toolkit (EvaluATE, 2021).

Title: One-Page Reports

Time: Two to three hours depending on interest

Notes: This toolkit provides tools, examples, and videos on creating one-page reports.

☐ STEP SEVEN: Do some self-evaluation through this video series (Nussbaumer Knaflic, 2021).

Title: Become a data viz SUPERSTAR

<u>Time:</u> 19 minutes for parts one and two

<u>Notes:</u> In this three-part series (parts one and two are free), Cole Nussbaumer Knaflic shares tactics for setting good goals, learning, influencing others, and getting the support you need to become—or help members of your team become—a data visualization and storytelling superstar.

Handy Resources

- **Equitable Evaluation Tips Incorporating Diversity, Equity and Inclusion (DEI) into all stages of the evaluation processes by Elizabeth McGee – AEA365 (McGee, 2021)** Overview of practical ways to embed diversity, equity, and inclusion considerations into each stage of your evaluation approach.

- **Data Visualization Checklist (Evergreen, 2021a)** The Data Visualization Checklist is a compilation of 24 guidelines on how graphs should be formatted to best show the story in your data. The 24 guidelines are broken down into 5 sections: Text, Arrangement, Color, Lines, and Overall, on how graphs should be formatted to best show the story in your data.

- **Effectively Sharing Evaluation Findings (Centers for Disease Control and Prevention. n.d.)** Use this worksheet from EvaluAction (CDC) to plan how you will share your data.

Online Courses on Data Visualization

- **Create Your Own Data Visualization. A Practical Workshop - eStudy 112 (Cost $150)** This online course through the American Evaluation Association is led by Rebeca Pop, Founder, of Vizlogue LLC. Participants will identify the steps to take to avoid data pitfalls, make thoughtful design choices, and incorporate storytelling elements.

Just for Fun

- **http://stephanieevergreen.com/Fun/** Dr. Evergreen has collected ways to engage audiences with fun and games when cool slides just won't do.

References

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NSVRC
national sexual violence resource center

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