

Session 3: ChatGPT & Quantitative Analysis

March 25th, 2025



Using ChatGPT for Quantitative Data Collection & Analysis



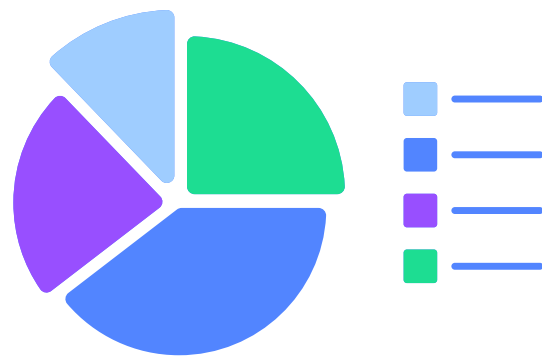
Designing Surveys & Questions



Coding Survey to Specific Format



Generating Excel Formulas



Creating Tables & Charts



Calculating Indicators



Using ChatGPT to Encode Data (API)

1. Using ChatGPT with Excel

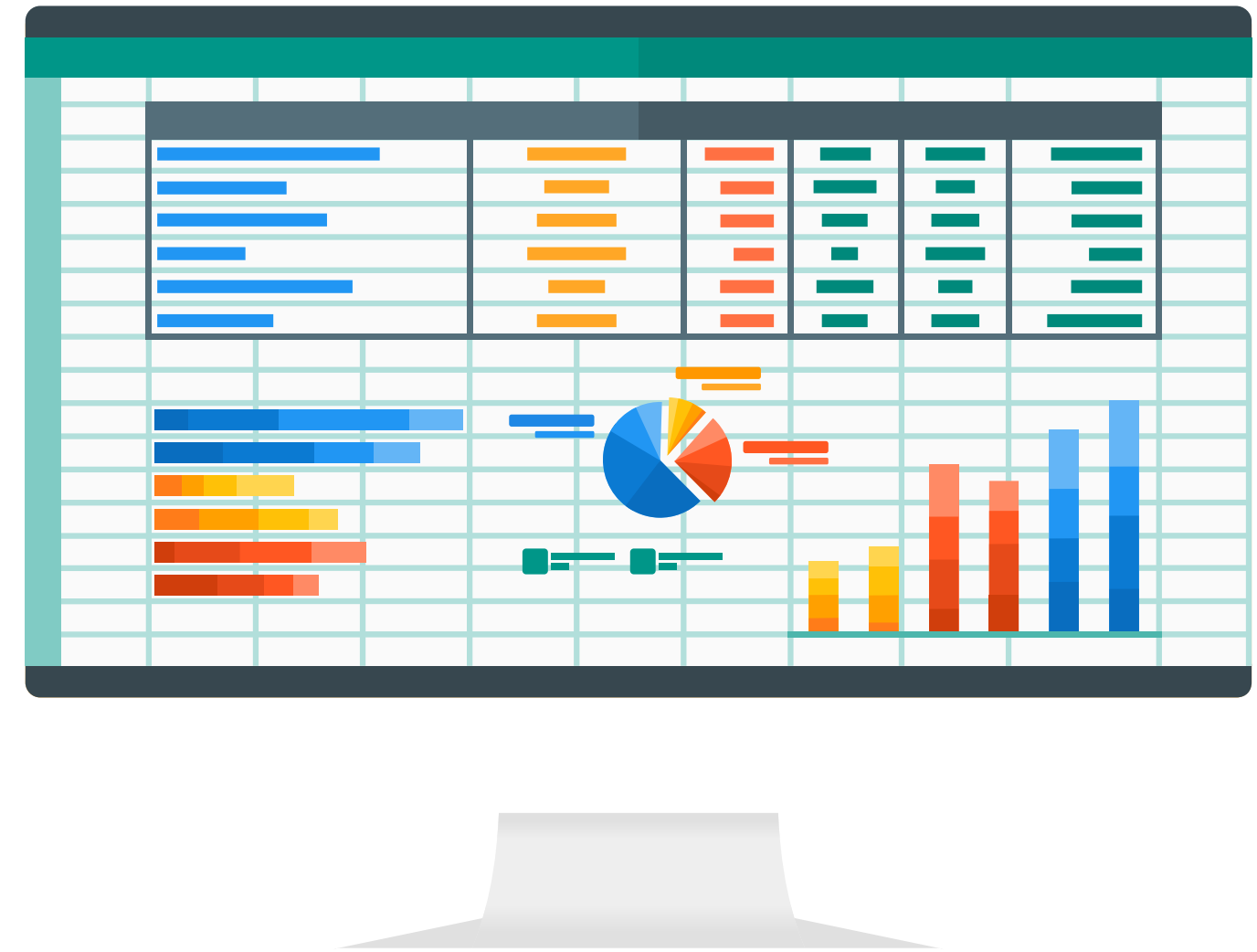
2. Microsoft Copilot

3. Data Analysis in Chat GPT

4. Other use cases

**Let's
Review
some
Examples!**

Using ChatGPT & Copilot with Excel



1. Prompt for Asking for Excel Formulas

1

Provide Context

I have collected data from quantitative surveys. In my Excel dataset, I have information collected on the Ease of access to SRHR services on a scale of “Very easy” to “Very difficult.” I also asked respondents’ their gender (with the answers Male/ Female/Other).

2

Ask Clearly

What formula can I use to calculate this indicator: “Percentage of women that report easy or very easy access to SRHR services”?

3

Specify the Output

Please provide an explanation.



QUICK TIPS

Tips for Asking for Excel Formulas

- Always review the formula ChatGPT gives you and understand all the components (ask for an explanation)
- If the formula results in an error in Excel, tell chat GPT which error it is to get some more advice.

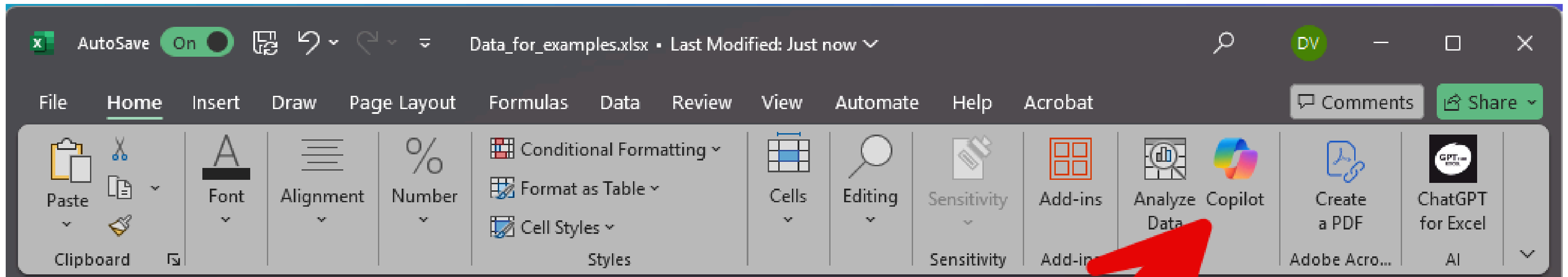
Microsoft Copilot



- Uses same large language models as ChatGPT
- Integrated in Microsoft Windows and Office
- Can directly work with your Excel sheet
- Available with some Microsoft 365 subscriptions or as add on for \$27 CAD/month

Opening Copilot in Excel

- Click on Copilot in Home tab
- The Excel file must be saved on OneDrive with autosave enabled for Copilot to work



2. Ask Copilot to Calculate an Indicator

1

**Provide
Context**

*Copilot will already know the context of
your file*

2

Ask Clearly

Calculate this indicator for me: “Percentage of women that report easy or very easy access to SRHR services.”

3

**Specify the
Output**

Create this indicator as a new column. Please explain the formula to me clearly and concisely.

ChatGPT

Data Analysis Module



Data Analyst Module

- Enables ChatGPT with Python programming environment
- Instead of using the language model to analyze data ChatGPT now writes programming (Python) code
- Greatly expands the capabilities of ChatGPT

3. Prompt for Direct Data Analysis

(using a model without data analysis module)



1

**Provide
Context**

I am a program manager for a global health program funded by Global Affairs Canada operating in Sierra Leone. I have collected data from five quantitative surveys.

2

Ask Clearly

Calculate the following indicator for me:
“Percentage of women reporting easy or very easy access to SRHR services”
(*Paste data*)

3

**Specify the
Output**

Empty box for specifying the output.

4. Prompt for Calculating an Indicator

1

**Provide
Context**

Upload Data

2

Ask Clearly

Calculate the following indicator for me:
“Percentage of women reporting ‘easy’
or ‘very easy’ access to SRHR services”.

3

**Specify the
Output**

Make sure to use the provided dataset.

5. Prompt for Creating a Table/Chart

2

Ask Clearly

Prompt 1: Please create an appropriate chart for the question ease of access to SRHR.

Prompt 2: Now, create a chart that shows ease of access to SRHR disaggregated by gender.

3

Specify the
Output

Prompt 3: Output this chart as an interactive HTML



Tips for Data Analysis in ChatGPT

- Enable “Always show code when using data analyst”
- Check if ChatGPT is really using your data and does not “hallucinate”
- Open a new chat to start over if ChatGPT gets stuck

Settings



General

Notifications

Personalization

Data controls

Builder profile

Connected apps

Security

Theme

System ▾

Always show code when using data analyst



Show follow up suggestions in chats



Language

Auto-detect ▾

Archived chats

Manage

Archive all chats

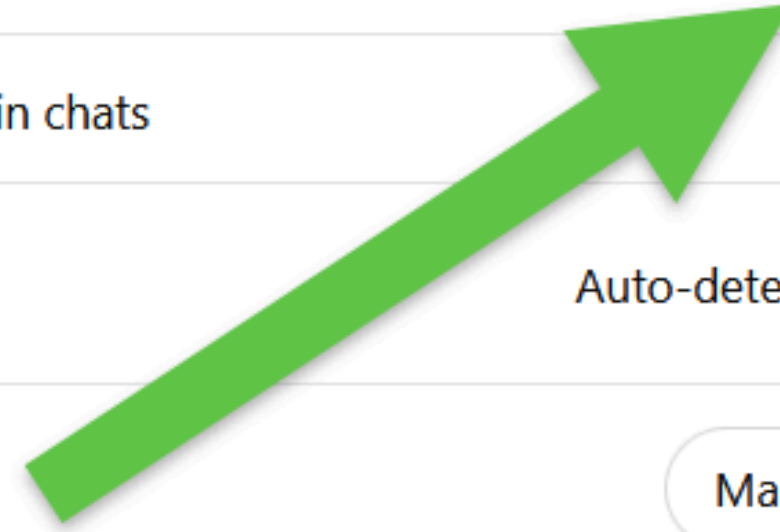
Archive all

Delete all chats

Delete all

Log out on this device

Log out



Group Exercise



**1. Analyzing Data Using
ChatGPT**

2. Using Copilot in Excel

Exercise 1 - Using ChatGPT for Data Analysis

Instructions

1. Download the practice data (file Data_for_the_exercise.xlsx)
 - a. Link: https://drive.google.com/drive/u/1/folders/1okh3SMAefSHOw_xpEDINDdXTzzpWLkxE
2. Upload the data to ChatGPT and introduce the data. Ask for an overview.
 - a. Example prompt: "I am a program manager for a global health program funded by Global Affairs Canada operating in Sierra Leone. I have collected data from fifty quantitative surveys. I am providing the data from the surveys. Please give me a brief overview of the data." (+ UPLOAD THE DATA FILE)
3. Ask ChatGPT to calculate a more complex indicator.
 - a. Example prompt: "Calculate the following indicator for me: "Percentage of women reporting easy or very easy access to SRHR services""
4. Ask ChatGPT for a chart
 - a. Example prompt: "Please create an appropriate chart for the variable ease of access to SRHR."
5. Ask ChatGPT to adjust the chart
 - a. Example prompt: "Now, create a chart that shows the ease of access to SRHR disaggregated by gender."
6. Ask ChatGPT for export of the chart
 - a. Example prompt: "Please replicate this chart and output it as an interactive HTML"
7. Explore the data analysis module capabilities further
8. **Record what you are learning on your Reflection Board.**



Exercise 2 - Using Copilot in Excel for Data Analysis



Instructions

1. Download the practice data (file Data_for_the_exercise.xlsx)
 - a. Link: https://drive.google.com/drive/u/1/folders/1okh3SMAefSHOw_xpEDINDdXTzzpWLkxE
2. Open Copilot in Excel
3. (Optional) Introduce yourself
 - a. Example prompt: "I am a program manager for a global health program funded by Global Affairs Canada operating in Sierra Leone. I have collected data from fifty quantitative surveys."
4. Ask Copilot to calculate a more complex indicator.
 - a. Example prompt: "Calculate the following indicator for me: "Percentage of women reporting easy or very easy access to SRHR services" Please, provide the output as a new column."
5. Ask Copilot for a chart
 - a. Example prompt: "What would be a good chart for the variable ease of access to SRHR? Can you please create it for me?"
 - b. *Follow up if needed: "This is not a chart but a table, please, create a chart."*
6. Ask Copilot to create another chart
 - a. Return to the sheet with data
 - b. Example prompt: "Now, create a chart that shows the ease of access to SRHR disaggregated by gender."
7. Explore Copilot's capabilities further
8. **Record what you are learning on your Reflection Board.**

ChatGPT API Using ChatGPT in Excel

- Add-ins (proprietary) are available that enable you to use ChatGPT as an Excel function
- These connect to the ChatGPT API and output the response
- You pay per message and/or a monthly fee

File Home Insert Draw Page Layout Formulas Data Review View Automate Help

Clipboard Font Alignment Number Styles Add-ins Analyze Data ChatGPT for Excel

C5 =AI.ASK(\$C\$1&B5)

	A	B	C	D	E	F
1		Prompt:	Is the respondent feeling happy? Please answer only "Yes" or "No". Here is the response:			
2		Formula	=AI.ASK(\$C\$1&B4)			
3						
4		How are you feeling today?	Happy - yes/no			
5		I'm feeling quite happy today.	Yes			
6		There is sadness in my heart.				
7		I am angry.				
8		I am feeling amazing				
9		Nothing bad happened to me today, so pretty ok.				
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						

Personalization: Memory



- ChatGPT can remember aspects of your conversations
- This information will be reflected in your future interactions
- You can delete things from the memory

Settings



⚙️ General

👤 Personalization

🔊 Speech

🗑️ Data controls

📄 Builder profile

🔒 Security

Custom instructions On >

Memory

ChatGPT will become more helpful as you chat, picking up on details and preferences to tailor its responses to you. [Learn more](#)

To understand what ChatGPT remembers or teach it something new, just chat with it:

- "Remember that I like concise responses."
- "I just got a puppy!"
- "What do you remember about me?"
- "Where did we leave off on my last project?"

Manage



Memory



As you chat with ChatGPT, the details and preferences it remembers will be shown here.



Clear ChatGPT's memory

Extras

1. Prompt for Designing Surveys



1

Provide Context

I am a program manager for a global health program funded by Global Affairs Canada operating in Sierra Leone. I am designing a survey to collect data on my program.

2

Ask Clearly

Generate culturally sensitive questions and answer options that I can use to measure the following indicator: "Percentage of target population with adequate WASH services and hygiene practices."

3

Specify the Output

Generate both questions and answer options.

1. Prompt for Designing Surveys



4

Follow up
Prompts

- **Indicator Calculation PROMPT:** When using the questions you listed, how should I define "adequate services and hygiene practices" in my indicator calculation? Please highlight the "correct" answers in the questions provided.
- **Disaggregation PROMPT:** What would be some meaningful disaggregations for this indicator that I could consider?

2. Prompt for Coding Survey Formats

- Kobo Collect



1

Provide Context

I want to design a survey based on the questions and answer responses you proposed.

2

Ask Clearly

Thinking in terms of the XLS Form format used by Kobo collect and ODK collect, design a survey using this format that includes these questions and responses.

3

Specify the Output

Design two tables, one for the sheet "survey" and one for "choices". Make sure to include all necessary information as well as to indicate the skip logic.

Creating Custom Chatbots (Paid)

- Predefine instructions for your Chatbots and upload files
- When you start the Custom GPT the instructions are already loaded
- Save multiple chatbots

GPTs

Discover and create custom versions of ChatGPT that combine instructions, extra knowledge, and any combination of skills.

- Top Picks
- DALL-E
- Writing
- Productivity
- Research & Analysis
- Programming
- Education
- Lifestyle

Featured

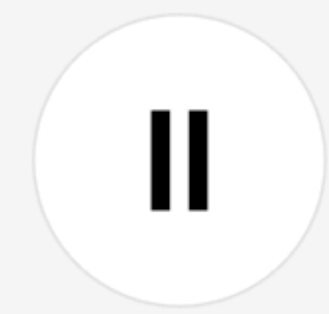
Curated top picks from this week



Wolfram

Access computation, math, curated knowledge & real-time data from Wolfram|Alpha and Wolfram...

By wolfram.com



ElevenLabs Text To Speech

Convert text into lifelike speech with ElevenLabs (limited to 1,500 characters)

By Ammaar Reshi



Create Configure



Name

Question Maker

Description

I make questions out of indicators

Instructions

I am an AI assistant who helps international development professionals generate questions for surveys based on indicators they provide me with. If I am provided with an indicator I will generate questions, answer options, and indicate which answers are "correct" in the indicator calculation.

Preview



Question Maker

I make questions out of indicators

Message Question Maker...



ChatGPT
Question Maker
Explore GPTs

Today

New chat

Global Health Data Analysis
Data Analysis for SRHR
Data Analysis Assistance Needed
Global Health Program Analysis
WASH Survey Design
WASH Survey Design
Control Theory Basics

Add Team workspace
Collaborate on a Team plan

David Valenta

Question Maker

You
Percentage of target population with adequate WASH services and hygiene practices.

Question Maker
To measure the percentage of the target population with adequate WASH (Water, Sanitation, and Hygiene) services and hygiene practices, we can develop a survey that captures various dimensions of WASH access and practices. The questions will focus on water quality, availability, sanitation facilities, and hygiene behaviors. The correct answers will indicate adequacy in WASH services and hygiene practices as per the standards set by international health organizations.

Section 1: Water Quality and Availability

1. **Do you have access to an improved water source within 30 minutes round trip from your home?**

Message Question Maker...

Team and Enterprise Subscriptions

- Enable organizations to manage their subscriptions
- More expensive than Plus
- Limited benefits

Team

USD \$25 per person/month*

Add Team workspace

Everything in Plus, and:

- ✓ Higher limits for GPT-4, GPT-4o, and tools like DALL-E image generation, advanced data analysis, web browsing, and more
- ✓ Create and share GPTs with your workspace
- ✓ Admin console for workspace management
- ✓ Team data excluded from training by default.
[Learn more](#)

* Price billed annually, minimum 2 users

Thank you for joining us!



Salanga

We are reimagining the purpose and practice of monitoring, evaluation & learning to advance gender equality, inclusion and community-driven change.

We provide tools, training and technology services in monitoring, evaluation, accountability and learning (MEAL) to organizations around the world.

