

[1]

Adopted the Revised Bloom's Taxonomy

1

	Remember	Understand	Analyze	Evaluate
Remember	The ability to identify and locate necessary resources for data visualization tool of choice Remember key steps for creating visualization	Comprehend the process of creating basic plots and graphs, explain and interpret code functionality. Demonstrate knowledge of methods to manipulate visual elements with referring to documentation Explain their code comprehensively	The ability to decide on appropriate graph types Identify errors in borrowed code, begin adapting and modifying existing solutions Pinpoint areas requiring debugging and seeking guidance	The ability to independently create visual using shapes, graphs, and animations with minimal reliance on documentation and online resources
Apply	The ability to replicate steps from tutorials/documentation	Understand how to apply topics in data visualization language of choice with tutorial and documentation support	The ability to section bigger code into smaller parts Apply knowledge to build new small visualizations	The ability to decide on visualization design, adjusting as seen fit
None	Not able to remember anything struggles with applying and creating any visualizations even with tutorial support	Can do all the stages of remembering but not proactive beyond that. Not able to understand anything, struggles with applying and creating any visualizations.	Can do all the stages of remembering and understanding but not proactive beyond that, such as implementing their understanding to another solution by making it into smaller pieces. Not able to analyze anything or apply with applying analysis to create their own visualizations.	Can do all the stages of remembering, understanding and analyzing however not able to debug issues they can raise and require extra support despite knowing where error is located.

3

Thematic Interview Analysis

```
''' ChatGPT is primarily used for debugging code rather than creating visualizations (analyze * create) '''  
  
quotel = "Yeah, it's more debugging. I don't like to tell ChatGPT, from ground 0, 'go create me something', cause it doesn't know"
```

```
''' Using ChatGPT saves time compared to documentation and search engines (understand * apply) '''  
  
quote2 = "With GPT you can really converse what you're looking for...So before I was using reading documentation. But I just use the faster learning tool now, which is GPT" [p1]
```

Overall, ChatGPT helps make small tweaks to existing visualizations (understand * apply), however it falls short in helping generate new visualizations (analyze * apply)

2

''' After creating definitions, we crafted interview questions that fit within the categories '''

analyze * apply

Can you describe a situation where you had to adapt or modify existing code for a new visualization requirement?

4

7 Recurring Themes

- Saving time
- Guiding ChatGPT
- Accessibility
- Debugging
- Precise Information
- Validating ChatGPT
- Limitations of ChatGPT