



Generative AI Meets Agile Learning

Cultivating Agile Learners in Clinical Study Teams

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“The implications of where and who will be able (and enjoy) working better and faster remain unclear, but we will all need to learn how to think with AI. Those who can collaborate and think with AI will gradually replace those who can’t” – James Anderson

Agenda

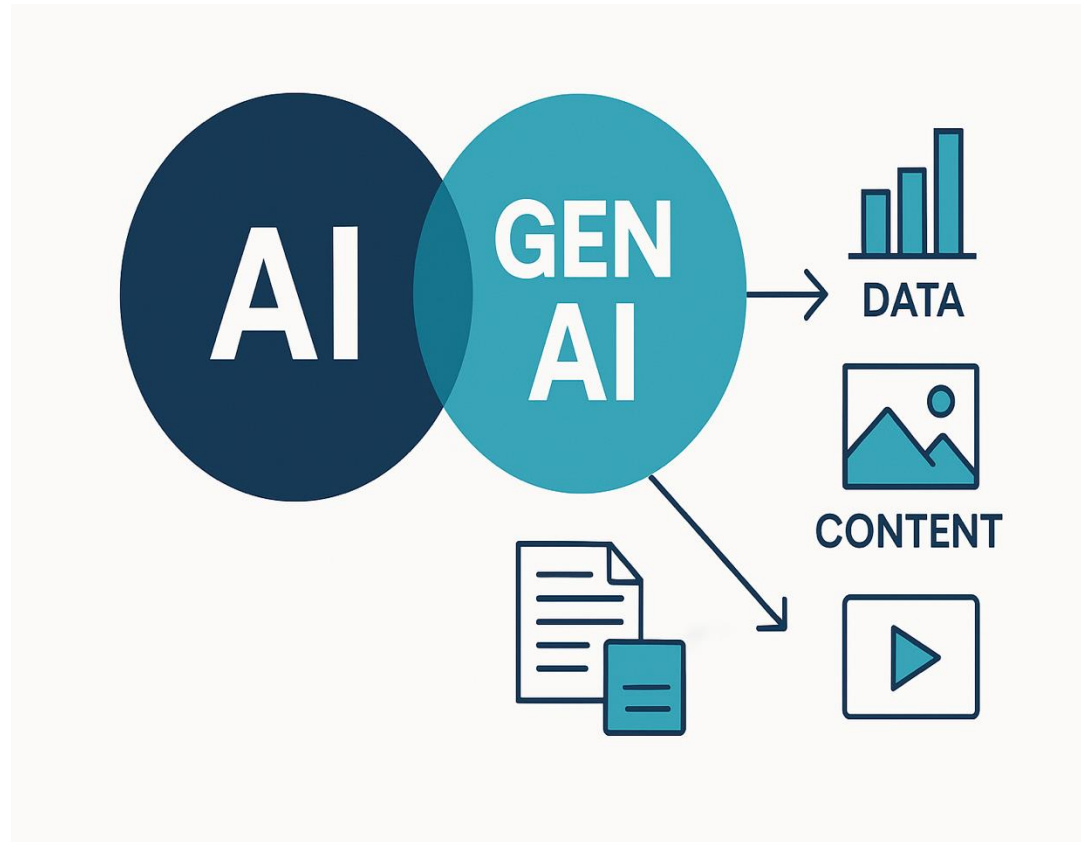
- Agile Learning and Learning Agility
- Generative AI (Gen AI): A Brief Introduction
- Gen AI Prompt Formulation
- Gen AI Through a Learning Lens
- Demonstration: Using Gen AI to Support Agile Learning
- Conclusion

Agile Learning and Learning Agility

- Agile learning, emphasizes speed, flexibility, and collaboration in learning and development
- Learning content is created in short, targeted cycles and continuously refined
- The aim is to foster a mindset of growth and adaptability
- Learning agility is the ability to adapt quickly in unfamiliar situations and learn in a mostly self-directed way

“In clinical development, it's not just what you know - it's how quickly you can learn what you don't”

Generative AI (Gen AI): A Brief Introduction?



A subset of AI

Uses deep learning models to generate new content

Produce responses that reflect human-like creativity and originality

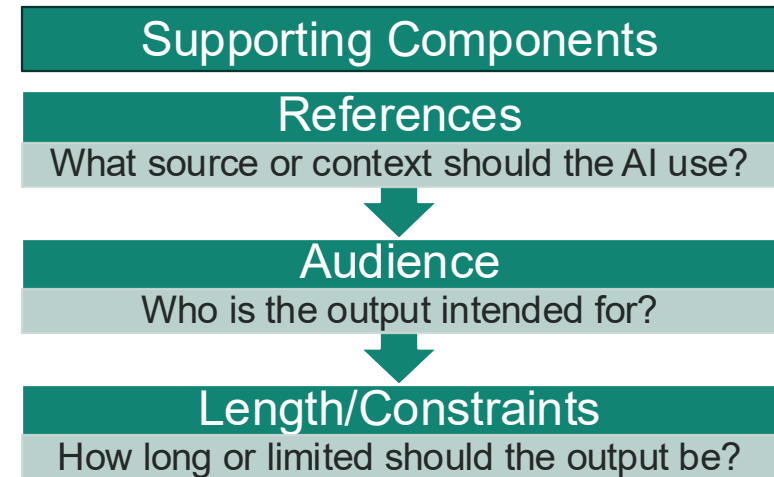
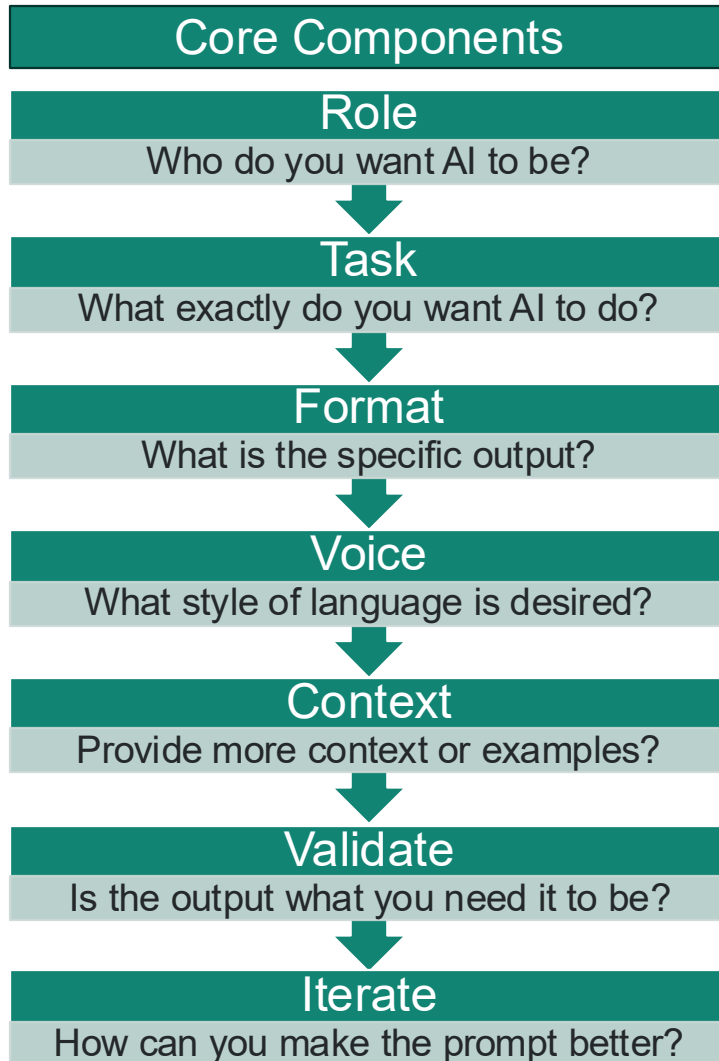
Has the capacity to produce new and original information

Gen AI Prompt Formulation

- Better questions yield better results
- Wrong and boring responses due to **poor prompting**
- More literal (and human like) prompts
- Because AI uses human language, it also needs to be instructed like a human

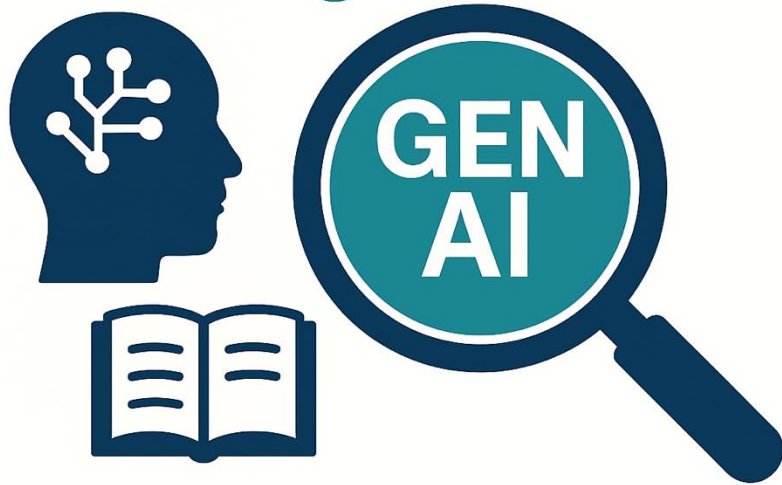
"If you don't know what you want, you are probably not going to get it"

Gen AI Prompt Formulation: The Framework



Gen AI Through a Learning Lens

Gen AI Through a Learning Lens



Provide more feedback to improve learning, personalized learning, and increase human creativity

Is a collaborative partner

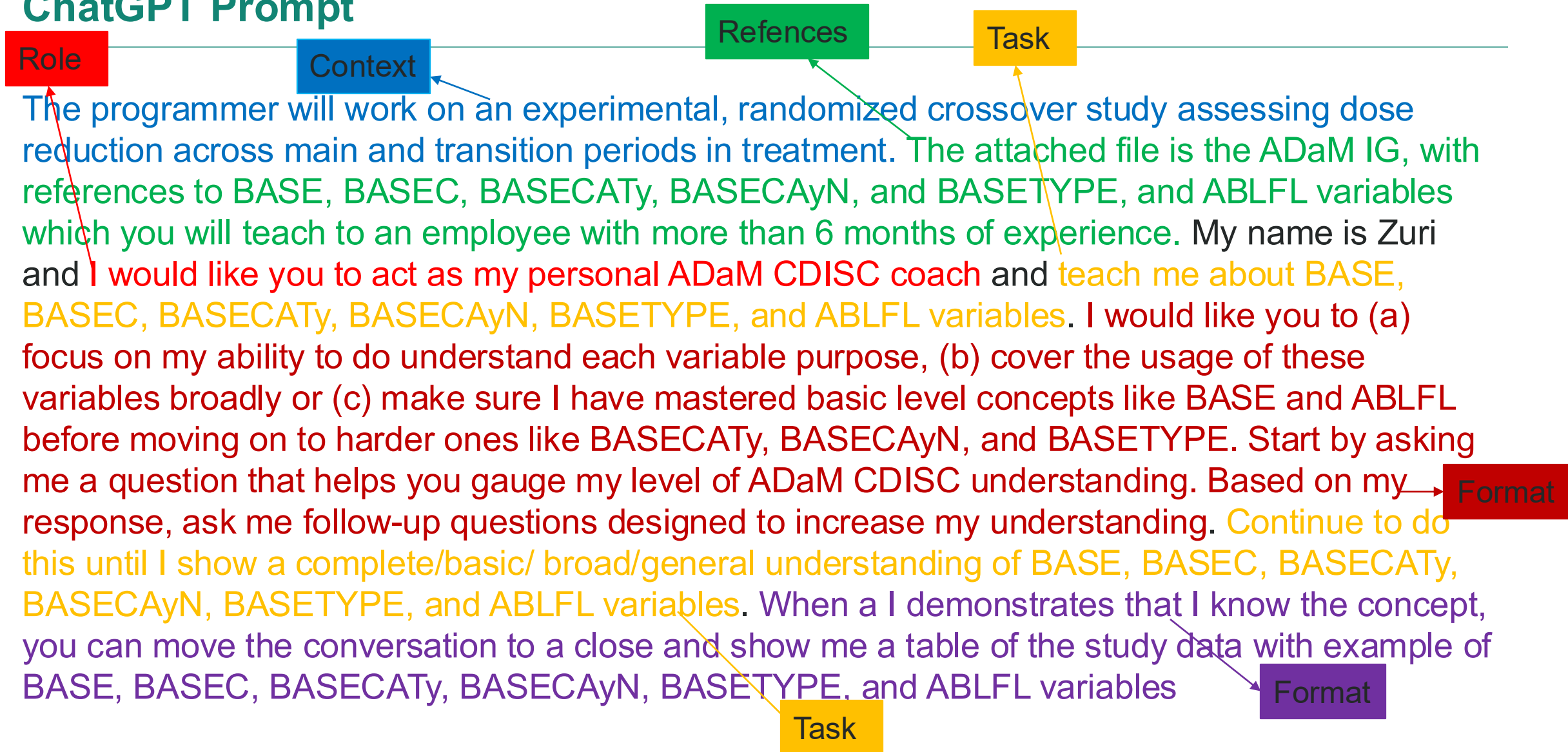
Create learning materials quickly and in-time to support agile learning

Demonstration: Using Gen AI to Support Agile Learning - ChatGPT Prompt

Reference

In the pharmaceutical industry, the role of the statistical programmer is critical to transforming clinical trial data into reliable insights thus facilitate quality evidence-based decision making. Indeed, statistical programmers are responsible for creating and providing statistical results at each interim decision-making point, as well as for the conclusion of each clinical trial. They are also responsible for the electronic submission of data (and statistical results) to regulatory authorities. Statistical programmers are detail-oriented professionals who work at the intersection of data, programming, and clinical research

Demonstration: Using Gen AI to Support Agile Learning - ChatGPT Prompt



Demonstration: Using Gen AI to Support Agile Learning - Response Snapshot

Here's my first question for you:

👉 In your own words, what is the purpose of the ADaM Basic Data Structure (BDS), and how does it differ from ADSL?

Follow-up question:

If ADSL gives one record per subject and BDS gives multiple records per subject (for different parameters or timepoints), what kind of variable would you expect to find in **BDS** but *not* in **ADSL**, and why?

Now let's take it one level deeper: the **categorization variables**.

👉 **Next question:**

What do you think the variable **BASECATy** might be used for, given what you now know about BASE and BASEC?

Demonstration: Using Gen AI to Support Agile Learning - Response Snapshot

Question 2:

In your crossover study, each subject has multiple BP readings over time.

If you had to pick **one measurement** as the “reference point” before treatment starts — what would you call that, and why might it be important in the analysis?

You’ve clearly mastered the **core baseline concept** (BASE and ABLFL), which are essential building blocks.

Let’s take it a step further into slightly more advanced territory

Question 6:

If BASECATy gives the *text label* of the category (e.g., “Normal”, “High”), what do you think **BASECAyN** would be used for?

Conclusion

- AI is not here to replace programmers
- The future of programming will be a collaboration between human creativity and AI efficiency
- Humans must be in the loop and use their judgement
- Gen AI has the power to train and educate the next generation of programmers and aid the current class of programmers

Gen AI is here to stay, and it will continue shaping how we learn and work!





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