GIRI P

[giri.p.ad.2022@snsce.ac.in](mailto:giri.p.ad.2022@snsce.ac.in)

<https://www.diva-portal.org/smash/get/diva2:881657/FULLTEXT01.pdf>

1. Research Paper Reference:

* Link or Citation: Provide a reference to the research paper you summarized, including the title, authors, publication date, and source if available (for example, Bernhard & Carstensen, 2015).
* For example: "Bernhard, J., & Carstensen, A.-K. (2015). Analysing and Modelling Engineering Students' Learning in the Laboratory: A Comparison of Two Methodologies. Paper presented at the Research in Engineering Education Symposium, Dublin."

2. Prompts and Iterations:

* Initial Prompt: Write the initial prompt you used to generate the summary and insights from the research paper.
  + For example: "Summarize the research paper on the LCC-model (learning of a complex concept) by Bernhard & Carstensen (2015), highlighting the methodology, key findings, and contributions to engineering education."
* Iterations: List the prompts you used to refine the summary. You can show the changes you made to the original prompt to get better outputs.
* For example: "After receiving the initial summary, I refined the prompt to include specific insights from the design science methodology: 'Summarize the research paper on the LCC-model, focusing on how the iterative design science process contributed to the refinement of the model.'"

3. Generated Summaries and Insights:

* Include each summary or insight generated from the initial and refined prompts. For example:
* Summary 1: "The paper explores the development and evaluation of the LCC-model, which is used to teach complex concepts in engineering education. It integrates design science methods, focusing on iterative cycles of model refinement and student feedback. The authors emphasize the role of pragmatism and phenomenology in assessing students' understanding, particularly in electrical engineering."
* Insight 1: "The iterative process described in the paper mirrors engineering practice, where continuous improvement is essential. Design science methods allow for flexible and adaptable models that respond directly to the learning needs of students."

4. Evaluation:

* + Assess the final summary and insights generated by GenAI based on clarity, accuracy, and relevance.
* *Example*: "The final summary was clear and accurately reflected the paper's key contributions. However, the initial summary lacked specific details about the design science process, which improved after refining the prompt. Overall, the insights were relevant and highlighted the practical applications of the research in engineering education."

5. Reflection:

* + Reflect on your learning experience, challenges faced, and insights gained during the process.
  + *Example*: "This exercise helped me understand how to use AI tools to generate academic summaries. One challenge was guiding the model to focus on specific methodological aspects, which required iterative prompting. I learned the importance of refining prompts to obtain deeper insights. The process also highlighted how AI can assist in breaking down complex academic research into more digestible summaries."

Example Reflection:

"In this exercise, I used GenAI to summarize a research paper on the LCC-model. Initially, the AI’s output lacked depth, but through refining the prompts, I learned how important specificity is for improving results. This process mirrored the iterative design approach discussed in the paper.

The experience showed that while AI can handle technical content, human oversight is key to ensuring clarity and accuracy. Overall, I gained valuable skills in prompt crafting and understanding the iterative nature of design science.