

STA496 Reflection 3

1. What key strengths did I demonstrate in this assignment, and what skills or knowledge do I still need to develop?

In this assignment, I demonstrated the key strengths of creativity, synthesis and relevant paper selection. In terms of creativity, for the "ePortfolio Plan" section of the STA496 assignment, I included a demo website with personalised design elements, which integrates my personal style and creative touches to the research work. Among these elements will be a section delineating the STA496 research process from start to finish, including artifacts such as brainstorming notes, scratch papers, and reflections to showcase the creative thought process behind the research. Additionally, in terms of synthesis, according to Dr. White's feedback, my assignment provided an "excellent overview of the papers you have reviewed so far", indicating my ability to synthesise findings from sources into key points related to my research focus. Finally, in terms of relevant paper selection, within this STA496 assignment I selected 31 papers related to statistics education, narrowing my focus to papers which explored the integration of generative artificial intelligence in statistics education such that the papers I selected were "relevant to my research focus and provide valuable insights into the topic" according to Dr. White.

Despite these key strengths, there are areas for further development within the assignment. Clearer descriptions, polishing of citations, and narrowing my research focus further were suggested as areas of improvement.

2. If I were to do this assignment again, what changes would I make to improve my work?

If I were to do this assignment again, I would implement changes that address the three areas for further development outlined above: clearer descriptions, polishing of citations, and narrowing my research focus further. To achieve clearer descriptions in my work, I could be more selective with word choice, such as substituting "broad statistics education" by more specific description. Additionally, I could provide further background context within my descriptions. Additionally, to achieve more polished citations, I could use APA resources such as Purdue OWL to ensure my citations (both in-text and reference style) are correctly formatted. Furthermore, I could cross-check my in-text citations within the assignment to ensure all citations are fully complete prior to submission. Finally, to achieve a narrowed research focus within the assignment, I could investigate more than 31 papers, which would provide a broader scope of literature and potentially allow me to focus on a more specific subtopic within generative artificial intelligence integration in life science statistics education. For instance, I could aim to investigate 50 papers.

3. What next steps will I take to continue to build and refine my annotated bibliography?

To continue to build and refine my annotated bibliography, I aim to increase the number of papers reviewed further, targeting 70 papers or more. Using this broadened scope of information, I aim to refine my research focus further, from the current investigation on how

generative artificial intelligence (genAI) can be integrated into statistics education to improve learning outcomes for undergraduate life science students, to something potentially also related to course-specific chatbots or the risk of cognitive laziness due to genAI usage. Throughout this process, I will ensure documentation of process artifacts, such as brainstorming papers and scratch notes, to demonstrate the creative thought process for the final annotated bibliography.

4. What next steps will I take to prepare and enhance my ePortfolio?

As I noted in my STA496 assignment, "for my ePortfolio, I plan to include a range of media and file types to guide the audience through my research process through a timeline-oriented approach, eventually arriving at the final product which will be the research findings and a polished summary. The phases of this timeline are intended to be collection, selection, reflection, and connection. I have recorded my STA496 reflections, literature search, and assorted notes on Microsoft Word, thus this is one file type which I intend to include in the final ePortfolio", and "I decided instead to integrate my ePortfolio into a personal website I'm building this summer, with a dedicated STA496 research section". Therefore, in terms of next steps for the ePortfolio, I need to continue collecting artifacts, as well as finalising the website and STA496 section with an appropriate timeline.