**System Analysis and Design with Case Tools Project: Literature Review**

Introduction:

In this project, you will conduct a literature review focused on a topic in System Analysis and Design (SAD). The project aims to deepen your understanding of current research trends and best practices in SAD and enhance your critical analysis and synthesis skills.

Objectives:

* Explore current research literature related to a SAD topic.
* Analyze the literature to find trends, challenges, and opportunities.
* Synthesize findings to inform practice and future research directions.

Timeline:

* Week 8: Project Proposal
* Week 9-12: Literature Review and Analysis
* Week 13-14: Synthesis and Report Writing
* Week 15: Final Presentation and Submission

Deliverables:

1. **Project Proposal:**
   * Select a specific topic related to SAD.
   * Submit a brief proposal outlining the rationale, objectives, and scope of your literature review project in no more than 250 words.
2. **Literature Review and Analysis:**
   * Conduct a search of academic databases, journals, and conference proceedings to identify relevant literature on your chosen topic.
   * Review and analyze research articles and other scholarly sources to extract key concepts, findings, and gaps in the literature.
   * Organize your literature review according to themes or topics to facilitate analysis and synthesis.
   * Submit an excel spreadsheet with your findings. You should try to find, read, and synthesize 6 articles at a minimum.
3. **Synthesis and Report Writing:**
   * Synthesize the findings from your literature review to identify common themes, trends, and challenges in SAD research.
   * Critically analyze and evaluate the strengths and limitations of existing research literature in SAD.
   * Write a comprehensive research report summarizing your literature review findings, analysis, and insights.
4. **Final Presentation and Submission:**
   * Prepare a professional presentation summarizing the key findings and insights from your literature review project.
   * Deliver a presentation to your peers and instructor, highlighting the significance of your research and its implications for practice and future research directions.
   * Submit your final research report, adhering to academic writing standards and APA guidelines.

Helpful Suggestions:

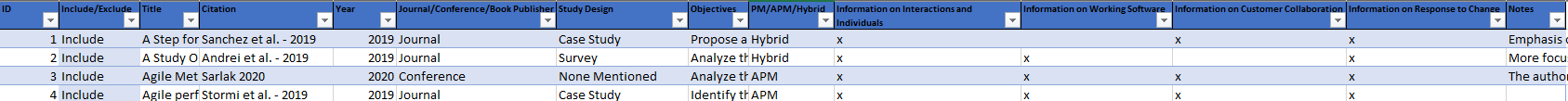
**Project Proposal:**

1. Complete these steps to initiate brainstorm for your research topic:
   1. Navigate to: <https://chat.openai.com/>
      1. Create an account if necessary.
   2. Write in the prompt: what are 6 research topics in system analysis and design?
   3. Narrow in on a topic. Choose one of the outputs (example: mine was requirements engineering).
   4. Write a new prompt saying “tell me about (requirements engineering research) in (your interested industry [e.g. healthcare, finance, banking, education]).
2. Pick a topic and survey the literature on Google Scholar, or a similar website. If there is an abundance of articles about the topic you are interested in, you have likely found a good topic to start with.
3. Begin writing your abstract.

**Literature Review and Analysis:**

1. Conducting a literature review can be a time consuming process. You want to find 6 or more recent articles that capture your interest about what you are studying. Once you find all your articles, begin your analysis process.
2. I recommend creating an Excel worksheet where you can log all important details such as author, year, publication type, methodology, objective of the study, findings, future research, and limitations. I have attached an example below:
3. Once you have catalogued your data, begin creating charts or visualizations in Excel to better understand your findings and to effectively communicate any findings of interest.

Example:



**Synthesis and Report Writing:**

1. Take your findings and write them up cohesively. Use the data you have collected from the literature review to begin writing up your findings.
2. Take time to refine your initial abstract and determine if your initial proposal idea has shifted.
3. Write up the following in a report that is in the range of 1000-1500 words:
   1. Introduction
      1. Motivate the research. Why is it important?
   2. Background
      1. Give your reader some background on your topic. This can include a survey of current research OR chronological background (where it started and where we are now)
   3. Findings
      1. Themes that you found in your research. Convey only what you found in the findings. Indicate key concepts, what you found, and any gaps that exist in the research.
   4. Conclusion
      1. Future research opportunities
      2. Limitations of your study

**Final Presentation and Submission:**

1. Run your report through Grammarly.
2. Create a presentation that clearly conveys your topic, findings, and the current state of the literature you have reviewed. Mention any future research opportunities and limitations if they exist.

Rubric:

**Note:** The rubric provides a framework for evaluating the quality of the literature review based on various criteria, including project proposal, literature review, synthesis and analysis, report writing, presentation skills, and overall quality.

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| --- | --- | --- | --- | --- | --- |
| Criteria | Excellent | Good | Fair | Needs Improvement | Inadequate |
| Project Proposal | Clearly articulates the rationale, objectives, and scope of the literature review project, demonstrating a strong understanding of the chosen topic. | Provides a well-defined project proposal with clear objectives and scope, but may lack some depth or clarity. | Presents a project proposal with basic elements but lacks specificity or coherence in the rationale and objectives. | Offers a vague or incomplete project proposal, lacking clarity in the rationale, objectives, or scope of the literature review project. | Project proposal is missing or significantly lacks coherence, depth, and specificity. |
| Literature Review | Conducts a comprehensive search and review of relevant literature, identifying key concepts, findings, and gaps in the literature. | Reviews and analyzes a wide range of literature sources, extracting key information and insights relevant to the chosen topic. | Reviews a sufficient number of literature sources but may lack depth or breadth in the analysis and synthesis of research findings. | Reviews a limited number of literature sources, resulting in a superficial analysis and synthesis of research findings. | Literature review is incomplete or significantly lacks depth, breadth, and critical analysis of research findings. |
| Synthesis and Analysis | Synthesizes literature review findings to identify common themes, trends, and challenges in SAD research, demonstrating critical analysis and insight. | Synthesizes literature review findings effectively, highlighting key themes and insights, but may lack some depth in critical analysis. | Presents a basic synthesis of literature review findings, identifying some themes and insights, but lacks critical analysis or depth of insight. | Offers a superficial synthesis of literature review findings, providing limited analysis and insight into key themes and trends. | Synthesis of literature review findings is missing or significantly lacks coherence, depth, and critical analysis. |
| Report Writing | Writes a well-organized and coherent research report, adhering to academic writing standards and citation guidelines, with clear presentation of ideas and findings. | Writes a mostly well-organized research report, demonstrating effective communication of ideas and findings, but may have minor issues with clarity or organization. | Writes a research report with some organization and coherence, but may lack clarity or consistency in presenting ideas and findings. | Writes a research report with significant issues in organization, clarity, and coherence, making it difficult to understand or follow. | Research report is poorly organized, unclear, and lacks coherence, making it difficult to understand the ideas and findings presented. |
| Presentation Skills | Delivers a professional presentation summarizing key findings and insights from the literature review project, engaging the audience and effectively communicating the significance of the research. | Delivers a clear and coherent presentation, summarizing key findings and insights from the literature review project, but may lack some engagement or impact. | Delivers a presentation summarizing findings from the literature review project, but may lack clarity, coherence, or engagement with the audience. | Delivers a presentation with significant issues in clarity, coherence, or engagement, making it difficult for the audience to follow or understand. | Presentation is poorly organized, unclear, and lacks engagement, making it difficult for the audience to follow or understand the key findings and insights presented. |
| Overall Quality | Demonstrates exceptional quality in all aspects of the literature review project, including proposal, literature review, analysis, report writing, and presentation. | Demonstrates good quality in most aspects of the literature review project, with minor areas for improvement in one or two areas. | Demonstrates satisfactory quality in some aspects of the literature review project, but may have significant areas for improvement in one or two areas. | Demonstrates poor quality in several aspects of the literature review project, with significant areas for improvement in multiple areas. | Demonstrates inadequate quality in most aspects of the literature review project, with significant areas for improvement in all areas. |