
Assignment 4: Research Proposal

Introduction

The research proposal is a document that finally establishes that there is a niche for your chosen area of study and that the research design is feasible. In other words, a proposal tries to convince its readers that the proposed plan or project is worth doing within the prescribed timeframe.

Objectives of the assignment

The primary objective of this assignment is to write a complete proposal for your topic. Your problem statement should be very clear and focused as everything is built from the problem statement. Your proposal should include a clear discussion on all the aspects of a proposal, inclusive of background, literature review, research objectives/hypotheses, and research strategy.

Research Proposal [50 Marks]

Based on your research problem write a research proposal to solve the problem. In terms of structuring your proposal, make sure the argument flows from the introduction, problem statement, objectives, questions, literature review up to the research methods to be applied.

Remember our main focus areas:

- Artificial Intelligence and Machine Learning (AI/ML)
- Cloud Computing
- Internet of Things (IoT)
- Cybersecurity and Privacy

Your proposal should not exceed 20 pages. Remember to use the Harvard referencing style. Structure your proposal as you see fit. The following structure serves as a guide:

Frontpage
Abstract
Table of contents
Introduction and background
Research problem statement
Research question, objectives/hypothesis
Literature review
Research strategy
Expected outcomes/results
Ethical considerations
Conclusion
Reference list

Additional Information

- Do this assignment as an individual. You can collaborate with your peers for discussions and brainstorming but the write-up should be done alone.

- The document will be scanned for plagiarism.
- This assignment should not exceed twenty (20) pages using Times New Roman Font, size 12, including references.
- Late assignments will not be accepted under whatever circumstance and all the candidates who will submit this assignment late will get a zero (0).
- Marks will be awarded according to the rubric below.

Rubric

Criteria	Excellent 5	Good 4	Fair 3	Poor 2	Very Poor 1
Research topic	The research topic is clearly defined, specific, and focused.	The research topic is mostly clear and specific but lacks some precision.	The research topic is somewhat clear but lacks specificity or focus.	The research topic is vague, making it difficult to understand.	The research topic is poorly defined and lacks clarity.
Literature review - overall	The literature review provides a comprehensive and thorough coverage of relevant literature, including key studies and perspectives.	The literature review covers a wide range of relevant literature, including key studies and perspectives.	The literature review adequately covers relevant literature, but there may be some gaps or omissions.	The literature review has limited coverage of relevant literature, with several gaps or omissions.	The literature review lacks coverage of relevant literature, with significant gaps or omissions.
Use and selection of literature	More than 10 papers from recognised academic sources.	10 papers from recognised academic sources selected for review	5 papers from recognised academic sources selected for review.	Insufficient literature source selected for review.	No literature from scholarly sources selected.
Integration of literature	Citations integrated and formed clear support for the research problem.	Citations integrated and formed clear support for the research problem can be improved.	Citations integrated but link to research problem is vague.	Some integration of citations, poor support for research problem.	No integration of literature, no citations from literature.
Research problem	The research problem addresses an important gap in knowledge and understanding within the field.	The research problem is significant but may need further justification of its importance.	The significance of the research problem is somewhat unclear or not well-supported.	The research problem lacks clear significance to the field.	The research problem is trivial or lacks any apparent significance.
Research questions and objectives (Hypothesis)	Research questions are clear, focused on scope, relevant, and concise with objectives that correctly address each question.	Research questions are mostly clear, but lack in scope, relevance, or conciseness with objectives that mostly correctly	Clarity can be improved, with average overall scope, relevance, and conciseness. Objectives reflect these as well.	Questions and objectives lack sufficient clarity, with below-average scope,	Questions and objectives are unclear, vague, irrelevant, and do not adhere to standard research practise.

Criteria	Excellent 5	Good 4	Fair 3	Poor 2	Very Poor 1
		address each question.		relevance, and conciseness.	
Research Methods, Data and Analysis Or Hypothesis testing	<p>Research methods are clearly defined, A clear link is made to the objectives. Data sources, gathering and analysis is clearly described.</p> <p>Hypothesis is clearly described as testable statement of a relationship between variables. The testing approach is clearly described.</p>	<p>Research methods are mostly clear, some link is made to the objectives. Data sources, gathering and analysis is mostly clearly described.</p> <p>Hypothesis is somewhat clearly described as testable statement of a relationship between variables. The testing approach is mostly clearly described.</p>	<p>Research methods described but can be improved in terms of clarity, A link is made to the objectives but can be improved. Data sources, gathering and analysis is described but need clarity.</p> <p>Hypothesis is stated but needs clarity to express a clearly testable statement of a relationship between variables. The testing approach is vague and need to be improved.</p>	<p>Research methods lack sufficient clarity, A vague link is made to the objectives. Data sources, gathering and analysis is vaguely described.</p> <p>Hypothesis is vague and do not represent a clearly testable statement of a relationship between variables. The testing approach is vague but might be adequate to the task.</p>	<p>Research methods unclear, vague or do not match the research objectives. No link is made to the objectives. Data sources, gathering and analysis is poorly described.</p> <p>Hypothesis is unclear and do not represent a testable statement of a relationship between variables. The testing approach is vague and inadequate to the task.</p>
Research ethics	The ethics implications of the research are clearly discussed and the approach to dealing with these issues discussed.	The ethics implications of the research are clearly discussed	Ethical issues adequately discussed.	Vague reference to ethical issues.	A discussion on ethics not included in the proposal.
Overall Quality, Presentation and References	The research proposal is well-presented, logically organized, and effectively communicated.	The research proposal is mostly well-presented but may have some minor issues.	The presentation of the research proposal approach is somewhat lacking in clarity or coherence.	The research proposal is poorly presented, making it difficult to follow or understand.	The research proposal is highly deficient, hindering comprehension.
Relevance and Impact	The proposed research has clear relevance and potential	The proposed research is relevant and may have a moderate	The relevance and potential impact of the proposed	The proposed research lacks clear relevance or	The proposed research is irrelevant and

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	impact within the field.	impact on practical applications.	research are somewhat unclear and or limited.	potential impact within the field.	unlikely to have any meaningful impact.