

Module Learning Outcomes

The module learning outcomes for this module are as follows:

1. Formulate potential research questions appropriate to an area of interest and within the area of computer science.
2. Outline methods of conducting and analysing quantitative and qualitative research.
3. Critically evaluate different methods of investigating an area of research interest and consider the nature of the relationship between the research question, methodology, and method.
4. Critically assess the key characteristics of qualitative and quantitative research methods.

This assessment addresses **all** the module learning outcomes listed above.

Assessment Tasks

For this assessment you now need to review research paper 1 and research paper 2, to complete the following tasks. You should produce an academic report that adheres to academic best practice.

Task 1 - Evaluation of both papers (suggested guideline: 750 words)

1. Identify the questions/hypotheses (possibly inferred) from both papers.
2. Review both Paper 1 and Paper 2, critically evaluate and compare their research design, including the methodology and methods, and discuss how these supports their respective questions/hypotheses.

Task 2 - Recommendations for one paper (suggested guideline: 1,750 words)

Select one paper from the two we have provided (this is entirely your choice) and address the following:

1. Considering the area of interest(s) indicated in the paper:
 - a. Critically analyse the questions/hypotheses and rewrite the research questions or research hypotheses, to produce a refined or improved study with a similar research outcome.
 - b. What would the starting point be if the research were to be done again?
 - c. Justify your decision.
2. Now outline the research design that would appropriately address the refined question/hypothesis for your selected paper.
 - a. This should include explaining the methodology and methods you would recommend in order to: collect appropriate data; prepare and analyse the data; and generate some conclusions.
 - b. You may choose any research methodologies, including mixed methods, qualitative or quantitative methodologies.
 - i. Critically evaluate and justify your selected methodologies and methods. You do not need to carry out the research project; you only need to describe the research design.

- c. Where you would not change the approach or you are using the same approach from a different perspective, clearly state this and justify your decisions.

Task 3 - Discussion of key characteristics (suggested guideline: 500 words)

1. Discuss and critically evaluate the key characteristics of qualitative and quantitative research methods beyond those identified in the given papers.

To achieve these tasks students will be required, and are expected, to read more broadly. You will need to gain an understanding of the given papers' context/subject area (to some degree) and you will need to understand and demonstrate (via evidencing the literature) the effectiveness of different methods and the methodologies that are being applied. Submissions that solely focus on the given papers will not demonstrate the required level of understanding and critical evaluation.

IV. Deliverables

Your assignment should be laid out following the formatting guidelines that are specified in the 'Submission Formatting' page in Canvas.

You should submit a single word-processed file as .doc, .docx or .pdf that addresses the tasks in this brief. The maximum word count for this assignment is 3,000 words. Be aware that the word counts given for each section/task outlined above are *guidelines* only.

Referencing

You are required to use the [IEEE referencing style](#) for citing books, articles, and all other sources (like websites) used in your assignment.

Good referencing is essential in order to meet the standards of academic integrity set by the University. All of your sources must be acknowledged, regardless of whether you included direct quotes or not. Visit your **Academic Integrity Tutorial** module in Canvas for additional guidance on effective referencing.

V. Marking Criteria

Address all of the tasks, making note of the word count limit. Those parts of your submission that go beyond the limit will not be marked. Any references or other sources used must be listed at the end of the document and do not count towards the word count.

These are expected in your submission and constitute what you are marked on.

Learning Outcome	Section /Task	Criteria	Available Marks
ALL	Adherence to academic best practice, including referencing, appropriate and accurate language.		10
	Task 1: Evaluation and comparison of <u>BOTH</u> Papers		

	1	Identify the questions/hypotheses from both papers.	10
3	2	Review Paper 1 and Paper 2 and critically evaluate and compare the methodology and methods used in both to answer the questions/hypotheses.	20
Task 2: Recommendations for <u>ONE</u> paper			
1	1	Considering the area of interest, critically analyse the questions/hypotheses and refine them based on your analysis for your selected paper. Justify your decision.	10
2,3	2	Outline and critically analyse the methodology and methods you would recommend when conducting and analysing quantitative and qualitative research based on the rewritten question/hypothesis for your selected paper.	30
Task 3: Discussion of key characteristics.			
4	1	Discuss and critically evaluate the key characteristics of qualitative and quantitative research methods.	20
TOTAL:			100

VI. Marking Criteria: Grade breakdown

Adherence to academic best practice, including referencing, appropriate and accurate language. 10%

0-39%	Fail	The report is not well organised or structured and the writing style is unclear and inconsistent. Citations are not correct or absent, and not applied in a consistent style. There is referencing within the document. Little or no attempt to develop a line of argument or to link ideas to the wider field of computing knowledge. Limited referencing and citation details. Little or no effort to research and embed in the paper up-to-date peer-reviewed knowledge.
40-49%	Potentially compensatable fail	Limited in terms of structure, comprehensibility [clear, concise and orderly], and presentation. Limited attempt to develop a line of argument or to link ideas to the wider field of computing knowledge. Limited referencing and citation details. Limited effort to research and embed in the paper up-to-date peer-reviewed knowledge.

50%-59%	Pass	Acceptable in terms of structure, comprehensibility, and quality of presentation. A relevant line of argument is presented and the relationship of this to the wider field of computing knowledge is made explicit. Appropriate referencing and citation details. The references used show acceptable efforts to research and embed in the paper up-to-date peer-reviewed knowledge (papers).
60%-69%	Merit	The work is appropriately structured, the lines of argument clear and well supported by the evidence. A fairly clear and relevant line of argument is presented, and the relationship of the argument to the wider field of computing knowledge is made explicit and evaluated in a way which is sensitive to the competing claims of different views but offers a conclusion which is defensible and justifiable. Well presented with appropriate referencing and citation details. The references used show competent efforts to research and embed in the paper up-to-date peer-reviewed knowledge (papers).
70%-100%	Distinction	The ideas are communicated with economy, precision and clarity. A clear and relevant line of argument is presented, and the relationship of the argument to the wider field of computing knowledge is made explicit and evaluated in a way which is sensitive to the competing claims of different views but offers a conclusion which is defensible and justifiable. Well presented with appropriate referencing and citation details. The references used show excellent efforts to research and embed in the paper up-to-date peer-reviewed knowledge (papers).

Identify the research questions/hypotheses from both papers. 10%

0-39%	Fail	Little or no attempt to discuss the research question(s) or inferred hypothesis for either paper.
40-49%	Potentially compensatable fail	Limited discussion on the research question(s) or inferred hypothesis for either paper.
50%-59%	Pass	Research question(s) or inferred hypothesis somewhat identified from both papers.
60%-69%	Merit	Research question(s) and inferred hypothesis clearly identified from both papers.
70%-100%	Distinction	Research question(s) and inferred hypothesis explicitly identified from both papers.

Paper 1 and Paper 2 review. Critical evaluation and comparison of the methodology and methods used in both to answer the questions/hypotheses.20%

0-39%	Fail	Little or no attempt to discuss both methodologies and methods. Weak and inconclusive comparison. Little supporting evidence
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40-49%	Potentially compensatable fail	Limited or inaccurate discussions on both methodologies and methods. Weak and inconclusive comparison. Little supporting evidence
50%-59%	Pass	Acceptable discussion on both methodologies and methods. Acceptable comparison for the most part with an acceptable level of analysis. Generally, well supported by evidence; very occasional gaps.
60%-69%	Merit	Competent discussion on both methodologies and methods. Competent comparison showing sustained critical reasoning which reflects competent analysis. Very well supported by evidence.
70%-100%	Distinction	Strong and accurate discussion on both methodologies and methods. Strong, independently conceived comparison which reflects independent critical analysis supported by excellent evidence.

Considering the area of interest; critical analysis of the questions/hypotheses and refinement of them based on analysis for the selected paper. Justified decision
10%

0-39%	Fail	Little or no attempt on the area of interest in relation to the question or hypothesis. Little or no attempt to carry out a critical evaluation of the question or hypothesis with little or no argument for the decisions made. Refined questions and hypotheses are either limited, not presented or do not match justifications.
40-49%	Potentially compensatable fail	Limited or inaccurate discussions on the area of interest in relation to the question or hypothesis. Limited critical evaluation of the question or hypothesis with a limited argument for the decisions made. Refined questions and hypotheses are either limited, not presented or do not match justifications.
50%-59%	Pass	Acceptable discussion on the area of interest in relation to the question or hypothesis. Acceptable critical evaluation of the question or hypothesis with a fairly clear argument for the decisions made. Questions and/or hypotheses presented in line with justifications made.
60%-69%	Merit	Competent and fairly technically accurate discussion on the area of interest in relation to the question or hypothesis. Competent critical evaluation of the question or hypothesis with a clear argument for the decisions made. Refined questions and hypotheses presented in line with justifications made.

70%-100%	Distinction	Strong and technically accurate discussion on the area of interest in relation to the question or hypothesis. Strong critical evaluation of the question or hypothesis with a well-reasoned argument for the decisions made. Refined questions and hypotheses presented in line with justifications made.
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Outline and critical analysis of the methodology and methods recommended when conducting and analysing quantitative and qualitative research based on the rewritten question/hypothesis for the selected paper. 30%

0-39%	Fail	Little or no attempt to discuss any changes that may or may not need to be made to the methodology and methods as a result of the question/hypothesis being reviewed and potentially refined.
40-49%	Potentially compensatable fail	Limited discussion on any changes that may or may not need to be made to the methodology and methods as a result of the question/hypothesis being reviewed and potentially refined.
50%-59%	Pass	If the approach is being changed then the methodologies and methods are stated to some degree, with a clear and relevant line of argument in relation to the rewritten question or hypothesis. If using the same approach from a different perspective this is stated to some degree and any decisions are presented with a clear and relevant line of argument
60%-69%	Merit	If the approach is being changed then the methodologies and methods are clearly stated with a clear and relevant line of argument in relation to the rewritten question or hypothesis. If using the same approach from a different perspective, this is clearly stated and any decisions are presented with a clear and relevant line of argument.
70%-100%	Distinction	If the approach is being changed then the methodologies and methods are explicitly stated with a clear and relevant line of argument in relation to the rewritten question or hypothesis. If using the same approach from a different perspective this is explicitly stated and any decisions are presented with a clear and relevant line of argument.

Discussion and critical evaluation of the key characteristics of qualitative and quantitative research methods. 20%

0-39%	Fail	Little or no attempt to discuss qualitative and quantitative research methods. Minimal or inaccurate discussion on advantages and disadvantages of the research methods identified. Weak or inaccurate examples of when and where they should be used, which go no further than the two research papers.
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40-49%	Potentially compensatable fail	Limited discussion on qualitative and quantitative research methods. Minimal or inaccurate discussion on advantages and disadvantages of the research methods identified. Weak or inaccurate examples of when and where they should be used, which go no further than the two research papers.
50%-59%	Pass	Both qualitative and quantitative research methods are identified, with both advantages and disadvantages identified and discussed in detail. Competent examples of when and where they should be used, with clear demonstration of wider reading beyond the two papers.
60%-69%	Merit	Both qualitative and quantitative research methods are identified, with both advantages and disadvantages identified and discussed in detail. Clear examples of when and where they should be used, with clear demonstration of wider reading beyond the two papers.
70%-100%	Distinction	Both qualitative and quantitative research methods are identified, with both advantages and disadvantages identified and discussed in detail. Strong examples of when and where they should be used, with clear demonstration of wider reading beyond the two papers.