REPORT WRITING
LIBRARY RESOURCES & SERVICES

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OVERVIEW

1: Report Writing
2: Smart Searching Techniques
3: Selecting Appropriate Sources
4: Referencing
5: Plagiarism
6: Library Research Tips
7: Library Resources
8: Library Services
9: Questions
WHAT IS IT?

A report is a clearly structured document in which the writer identifies and examines issues, events, or findings of an investigation.

Rather than commenting upon, comparing or evaluating ideas, as an essay does, a report frequently offers recommendations for action based on the information it has presented.
REPORT WRITING

PURPOSE

PROPOSAL
Suggests a project or an initiative, outlines background, details, expected outcomes of and recommendations or a plan for the proposed project/initiative.

LAB/ANALYSIS REPORT
Discusses the results from an experiment or an analysis, outlines how the experiment/analysis was conducted as well as its results and a discussion of their implications.

PROGRESS REPORT
Provides a summary of progress of a project or initiative, a description of the original plan, progress to date and plans for completion.

TECHNICAL REPORT
Describes the specific technical features of a product for potential users, contexts, purposes, requirements and descriptions of the features/product.
REPORT WRITING

WHERE DO YOU START?

Step 1: Analyse your task carefully
Consider the purpose, scope and limits of the report

Step 2: Make an initial plan
Work out what's relevant and what's not

Step 3: Find the information, read and make notes
Employ an effective search strategy

Step 4: Write the first draft outline with headings

Step 5: Revise your draft until ready for submission

*For comprehensive information searching it is important to be systematic in your approach. This includes developing a plan for your search (including the search terms you will use and the resources you will search), and keeping records of the searches you carry out.
REPORT HEADINGS

1: Title
2: Acknowledgements
3: Abstract, Executive Summary or Synopsis
4: Table or List of Contents
5: List of Tables and Illustrations
6: Introduction
7: Literature Review
8: Materials and Methods
9: Results
10: Discussion of Results
11: Conclusions
12: Recommendations
13: Reference List
14: Appendices
THE STRUCTURE OF A REPORT

The structure of a formal report may vary between institutions, organisations, disciplines, units and even between lecturers. Reports are generally organised into sections using clear headings.

1. TITLE
   The title should tell the reader what the report is about.

2. ACKNOWLEDGEMENTS
   Briefly thank people who assisted you in compiling and writing up the information in the report.

3. ABSTRACT, EXECUTIVE SUMMARY OR SYNOPSIS
   Many readers will only read the abstract so it needs to be informative, clear and brief. It provides an accurate, summary of the content of your report. It should state the main aim/question explored in your report, outline your approach to the research, the main theories you applied, and the most important findings/results of your research.

4. TABLE OR LIST OF CONTENTS
   List the main sections/headings of the report and the page number on which they first appear.

5. LIST OF TABLES AND ILLUSTRATIONS
   List any illustrations, graphs, charts, maps and the page number on which they first appear.

6. INTRODUCTION
   Set the report within a context of background information to illustrate the relevance or importance of your research. Areas to include: Background, purpose, scope, research and definition of terms.
THE STRUCTURE OF A REPORT (CONT.)

7. LITERATURE REVIEW
Briefly summarise the most significant writings and major research findings in your field of investigation using APA format. Evaluate the major works/findings, and connect them to your own work, to show how you will draw upon or depart from the literature in your research.

8. MATERIALS AND METHODS
State/define the methods you used to conduct your research and briefly provide a rationale for why this method was employed.

9. RESULTS
Present the main findings of your research, using sub-headings where appropriate.

10. DISCUSSION OF RESULTS
Analyze your findings, and provide an explanation for why those results were obtained.

11. CONCLUSIONS
Summarise the purpose of the report, the methodology or theories employed, the key points or findings of your report and the significance of those findings.

12. RECOMMENDATIONS
Suggest ways in which problems identified in the report may be resolved. They should be given in a numbered list and should be feasible and realistic. Information on how they can be implemented should also be given.

13. REFERENCE LIST
Use APA referencing for sources quoted, paraphrased or referred to in-text. Only include sources mentioned in the report.

14. APPENDICES
This is for material you consider important but that interferes with the flow of your discussion; for example, data, calculations, surveys, transcripts, graphics, maps, etc.
CHECKLIST

- Have you determined what type of report to write?
- Have you determined the structure/headings of your report?
- Have you collected the materials/information you need to write the report?
- Have you drafted a timeline to complete the report on time?
- Have you written a draft and edited it carefully?
- Are all parts of the report, including appendices, completed?
- Have you submitted it on time and in the correct format?
- Have you kept a copy of your report?
LEARNING ADVISERS
Study Assistance

Each of our schools have staff dedicated to providing study and academic support to students.

For more information about report writing, contact a Learning Adviser in your study area.

Learning Consultants provide workshops on academic and English language skills required for university study as well as unit specific workshops to assist you with a wide range of assessments.
Use ECU Worldsearch to search through the library’s collection of books, ebooks, journal articles and more.

You can use the filters menu at the left hand side of the page to restrict the search to specific items.

You can click on each item for more information. If the item in an article or ebook held online, you can press the ‘Access online’ button to view it.
EVALUATING INFORMATION

CAN'T I JUST GOOGLE IT?

Strengths
- Useful when searching "Grey literature" i.e. conference proceedings
- Results are ranked by relevancy

Be aware that...
- Content is not always equivalent to the scholarly or peer-reviewed content in databases
- Difficult to perform specific searches with precise results
- Gaps in coverage - a lot of information in the world are not freely available on the web
- Citations are often incomplete.

Google Scholar is a useful supplement to database research, but you should use the Library’s databases to search for the high quality information that will be the basis of your research. The Library’s databases provide access to more comprehensive, authoritative and up-to-date information, and enable users to include better limits on searches for more precise results.
IS WIKIPEDIA OK?

**Strengths**
- Articles can provide an introduction and general overview of the subject
- It is useful for identifying the main terms associated with a subject, and these can be used in your search
- Articles may have useful references at the bottom of the page that you can follow up the links and use in your assignment

**Be aware that...**
- Anyone can add and edit entries, whether they are an expert or not
- It can be heavily biased
- It can be of substandard quality, subject to misinformation and error
- Articles can be the target of deliberate misrepresentation or 'vandalism'
1. Analyse Your Question

2. Identify the Key Concepts

3. Find Synonyms or Alternative Keywords

4. Use Truncation* (optional)

5. Combine Keywords using AND, OR

6. Use Inverted Commas
Step 1: Analyse Your Topic

Topic: Automatic number plate recognition

KEYWORDS
- vehicles
- pattern recognition
- machine vision
- image processing
Step 2: Identify the Key Concepts

Topic: Automatic number plate recognition

CONCEPT 1: Automatic number plate recognition

CONCEPT 2: Pattern recognition

CONCEPT 3: Vehicles
Step 3: Find Synonyms

Topic: Automatic number plate recognition

<table>
<thead>
<tr>
<th>Automatic number plate recognition</th>
<th>Pattern recognition</th>
<th>vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR ANPR</td>
<td>OR character recognition</td>
<td>OR automobile</td>
</tr>
<tr>
<td>OR automatic licence plate recognition</td>
<td>OR computer vision</td>
<td>OR car</td>
</tr>
<tr>
<td>OR automatic license plate recognition</td>
<td>OR image processing</td>
<td>OR traffic</td>
</tr>
<tr>
<td></td>
<td>OR machine vision</td>
<td></td>
</tr>
</tbody>
</table>
Combine Keywords Using AND / OR / NOT

**AND** narrows down the search
"ANPR" AND vehicle

**OR** expands the search
ANPR OR "Automatic number plate recognition"

**NOT** excludes terms
vehicle NOT airplanes
Use Truncation and Inverted Commas

**Truncation Symbol** *
Use this to search for variations on a word

For Example:
vehicle* will pick up...
vehicle, vehicles, etc.

**Inverted Commas or Quotation Marks** "...
Use this to look for specific phrases.

For Example:
"image processing" or "pattern recognition"
Steps 4-6: Use Truncation, Combine keywords, Use Inverted Commas

Topic: Automatic number plate recognition

Automatic number plate recognition

- OR
- ANPR
- OR
- "automatic licence plate recognition"
- OR
- "automatic license plate recognition"

Pattern recognition

- OR
- "character recognition"
- OR
- "computer vision"
- OR
- "image processing"
- OR
- "machine vision"

Vehicle

- OR
- automobile
- OR
- car
- OR
- traffic
Example of Developing A Keyword Search Strategy

Topic: Automatic number plate recognition

Using AND, OR, *, "..."

- (Automatic number plate recognition OR ANPR OR automatic license plate recognition) AND vehicle*

- Automatic number plate recognition AND vehicle* AND pattern recognition

- Automatic number plate recognition AND vehicle* AND (pattern recognition OR "machine vision" OR image processing)
EVALUATING INFORMATION

CREDIBLE

Scholarly
Reputable
Trustworthy
Authoritative
Accurate
Reliable
Peer Reviewed
SELECTING CREDIBLE SOURCE MATERIAL

RECENT
- Is it timely and up-to-date?
- When was it published?
- When was it last updated?

RELIABLE
- Who wrote it?
- Is it biased in any way?
- Can it be verified?
- Who published it?
- Is it from a scholarly source?

READABLE
- Can you read and understand it?
- Who is the target audience?
- Is the information too basic?

RELEVANT
- Is it relevant to your topic?
- Is it an overview or detailed?
- Does it support or refute?
HOW TO SPOT FAKE NEWS

CONSIDER THE SOURCE
Click away from the story to investigate the site, its mission and its contact info.

READ BEYOND
Headlines can be outrageous in an effort to get clicks. What’s the whole story?

CHECK THE AUTHOR
Do a quick search on the author. Are they credible? Are they real?

SUPPORTING SOURCES?
Click on those links. Determine if the info given actually supports the story.

CHECK THE DATE
Reposting old news stories doesn’t mean they’re relevant to current events.

IS IT A JOKE?
If it is too outlandish, it might be satire. Research the site and author to be sure.

CHECK YOUR BIASES
Consider if your own beliefs could affect your judgement.

ASK THE EXPERTS
Ask a librarian, or consult a fact-checking site.
REPORT WRITING

WHAT IS REFERENCING AND WHY IS IT IMPORTANT?

What Referencing, or citation, is a vital aspect of research and academic writing. Referencing is a formal, systematic way of acknowledging the sources (other writers’ words, ideas, theories) that you have found in your research and used in your writing.

Why

- It is a requirement when at University
- It adds credibility to your work.
- It shows that you have researched your topic.
- It validates/strengthens your argument and discussion.
- It allows the reader/marker to verify the evidence that supports your argument/discussion.
- Provides written appreciation and recognition to the subject matter experts (authors), as by using their work you can achieve the above.

Failing to acknowledge other writers’ words, ideas or theories, either intentionally or unintentionally, is called plagiarism.
WHAT IS PLAGIARISM AND HOW DO I AVOID IT?

What
Plagiarism refers to a process of presenting other people’s work as your own without attributing it (i.e., referencing) correctly. It is the failure to acknowledge the use of the ideas of others as supporting evidence in an academic work.

How
- Rewrite ideas into your own words.
- Record bibliographic details of the source in your reference list.
- Try to insert your in-text references while you make your notes.
- Follow the correct referencing rules.

Plagiarism is taken very seriously at ECU and is subject to academic penalties. You need to reference correctly so as to avoid plagiarism.
APA is the referencing and writing style set by the American Psychological Association, and has been adopted across the majority of courses at ECU. It is an (author, date) style of referencing that consists of two parts:

1. In-text Citation – a short reference (author, date) contained within the text of your assignment AND

2. End-text Reference – the full citation details of each in-text citation used in the text of your assignment.
The role of automatic number plate recognition systems has been attracting considerable interest in surveillance and traffic monitoring in recent years (Chen & Wang, 2015). With the explosive growth and widespread use of traffic cameras deployed on the road networks, the amount of Automatic Number-Plate Recognition (ANPR) data captured daily by traffic cameras is very substantial (Sensor Dynamics, 2018). For instance, Sun et al. (2014) found that two number plate recognition systems (i.e., VAPA) predicted greater accuracy in pattern recognition overall. These systems...
APA REFERENCING STYLE
END-TEXT: BOOK EXAMPLE

APA REFERENCING STYLE
END-TEXT: JOURNAL ARTICLE EXAMPLE

APA REFERENCING STYLE
REFERENCE LIST EXAMPLE


- List is in **alphabetical order** according to last name
- Use a **hanging indent** for each subsequent line
- List is **double spaced** (check with lecturer)
TIPS FOR MANAGING YOUR LIBRARY RESEARCH

Tip 1: Allocate a realistic amount of time for searching the literature - this includes fine-tuning your search strategy, tracking down full-text items, and time to review and reassess your search).

Tip 2: Creating a spreadsheet or table that includes your keywords, search strategies, and notes about databases might be useful when first starting out.

Tip 3: Record the full bibliographic details of what you find, when and where you found it. (E.g. Website URLs and date accessed).

Tip 4: Consider using a reference management system such as EndNote.
ENGINEERING LIBRARY GUIDES

Research assistance and useful resources in a guide, compiled by your friendly librarians.

Know what we know - find it in the Library Guides!
WHAT ARE THE KEY ENGINEERING DATABASES?

**Knovel**
Features include interactive tools for tables, charts, equations, plotters and graphs. Also includes material properties, process and design information, best practices, and equations and formulations for engineering disciplines.

**ACCESS Engineering**
Features content from a broad range of McGraw-Hill engineering publications. Includes the latest editions of classics such as Mark’s Standard Handbook for Electrical Engineers, Roark’s Formulas for Stress and Strain, and Schaum’s Outlines.

**Engineering Village™**
Provides access to bibliographic databases of engineering research literature, including Compendex and Inspec, as well as to patents, standards and handbooks.
How much time do you spend on your research?

**Databases**
Access our databases to find full-text journals, ebooks, images, video, statistics, and abstracts.

**Referencing**
Access our APA Referencing Guide and EndNote Library Guide for additional support and tutorials.

**Standards**
Access our Engineering Libguides to find databases to search for International and Australian Standards.
DOC DELIVERY

Document delivery is a service for requesting books, journal articles and other resources not held by an ECU library.

CONSULTS

ECU Library consultations connect researchers to the information and skills needed to support their research.

WORKSHOPS

The workshops help you become more proficient in researching and using the ECU Library and its resources.
Are you new to ECU or just looking to improve your research skills?

Do you want to learn how to make the most of ECU Worldsearch and Library Databases? Need to brush up on your APA referencing? Come to Library Lunch & Learn!

Library Lunch & Learn is a series of bite-sized sessions (under an hour) held at the ECU Library Service Centre. These are designed to help save you time by becoming a more efficient library user and researcher.

Library Lunch & Learn Sessions include:

- How to use ECU Library
- How to use ECU Worldsearch
- Researching your Assignment
- Referencing
- Mind Mapping
- Streaming Music & Videos

Please register your attendance by visiting ecu.au.libguides.com/library-workshops

Free study help, anywhere

In 2018, Studiosity is your free, 24/7, online lifesaver.

Find it at blackboard.ecu.edu.au

Studiosity
Danielle Kong
Subject Librarian: Engineering

Joondalup Campus
Make an appointment with me at the Library from:
Monday - Friday, 9am - 5pm

Contact
d.kong@ecu.edu.au | 6304 6250

Consultations
I provide research advice and support in individual or group consultations for:
- Advanced searching skills (search strategies and databases)
- Technical assistance on using EndNote
QUESTIONS?