

Why Communication

- Inform about good work, achievement...
- Influence
- Express feelings...
- Bonding.

Seven 'c' of Communication

- Clear
- Concise
- Concrete (not vagueness)
- Correct
- Coherent (focused)
- Complete
- Courteous

Variables of Communication

28/7

- written / Printed
- oral
- visual
- Electrical
- One to one
- one to many

ex:- Conference Paper - written + one to many
Email to student - written + Electronic + one to one

* written Communication.

- Technical

- Simple English language
- Theorems and Proof
- Examples
- Equations
- Figures
- Table
- Reference.

- Creative

- language
- words
- verbal images
- Sound Pattern

+ oral

→ Technical

- ① Visual aids
- Charts
- slides
- poster
- handouts

→ ORAL Non-Technical

- ① Podium
- Handouts

Technical Comm

- writing

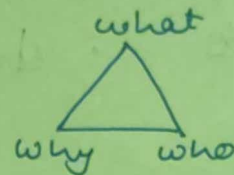
- Thesis
- Paper
- Report
- memo
- Proposal
- minutes of meeting
- Brief
- Cases
- Patent

- presentation

- report
- viva
- Review
- seminars
- lectures

zotero
overleaf
LaTeX

→ Technical Comm^m triangle.



FACTS

1/8/23

- 1:- Technⁿ Comⁱ is Art
2. Artise makes it better
- 3:- Technical writing and presentation are for other person -
- 4:- " " " " " is for some gain
- 5:- know the sub thoroughly before writing.
- 6:- No cheating
- 7:- Be diplomatic

Presentation

4/8/23

- A lecture +
- slide-show/handouts/posters/audio-visual demos
- effort to secure a predetermined response

→ why Presentation what

- To announce your invention/research work.
- To propose and get money for a new technical/system/Project/ideas.
- To educate others on your subject/research contribution/Views
- To sell/advertise your Product/ideas
- To get a new job/Promotion.
- To reach out.

Presentation vs writing
 Immediate Long term
 Real time Archival
 Face to face Non-contact

- ① Know your Audience
- ② words you uttered once cannot be taken back
- ③ Practice
- ④ number of slides = number of minutes
- ⑤ thorough knowledge
- ⑥ do not talk abt sth that isn't known.
- ⑦ Technical presentation (make it interesting)
- ⑧ Be Enthusiastic
- ⑨ one is in COMMAND
- ⑩ Be Polite and Tactful

2/8/23

British

American

what

our

or

why

ise

ize

Tips/Guidelines

re re

er.

Audiovisuals

(1) Independent clause

a group of words that contain a subject and a verb & express a complete sentence

ex:- Sita reads a book

- Hiking and biking are my fav summer.

↳ Sub

Predicate

↳ compound sentence

(2) dependent clause

- contains a subj & Pred but doesn't express a complete thought. / it is not a sentence.

ex - when sita reads a book..

Phrase:- a book for sita.

[SENTENCE]

1) Simple - 1 independent clause

ex - John reads novels and newspaper - compound object

- John reads and enjoys novels - compound verb

- John and Terry reads novels - compound subject

John and Terry reads and enjoy novels and newspaper - compound obj + verb + sub

2) Compound - two or more independent clause connected to one another with co-ordinating conjunction. [and, but, so, for, nor, or, yet, etc.]

ex:- The moon was bright and we could see our ways.

(3) Complex - a complex sentence has at least one (dependent clause joined to independent clause) created by subordinating or relative pronouns

ex - They rested when evening came

- as the powers advanced into the wing,
the people said
↓
independent clause

Subordinating Conjunctions

after, as, as if, as long as, as much as, as though, although, as soon as, because, before, even if, even though, how, if, in as much as, in order that, least, now that, provided, since, so that, than, that, though, till, unless, until, when, whenever, where, whenever, while.

Relative Pronoun

which - refer to things
- non-restricted clause

that - things
- restricted clause

who - people
- used as subject pronoun

whom - people.
- used as object pronoun

Research

Objective - learning + Research Contribution +
documentation = thesis

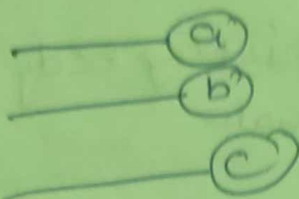
→ adding to the existing body of knowledge of
a topic of a domain

- developing a new/original technique, observation,
algorithm, theory...
- continuing an original work done by others, esp.
the supervisor.
- providing an original technique... in an unoriginal
but competent piece of work.
- developing several small original ideas, methods and
algorithms.
- showing originality in testing somebody else's
ideas
- finding a counter-example or fallacy in somebody
else's idea.
- select a supervisor (Active and experienced)
- select an Area.
- " " " Problem
- For i to n
 - read blw lines
 - develop ideas
 - Analyse, design, simulate, experiment
 - next i .
- write paper, submit progress.
- Thesis

- Final document
- Record of your Achievements
- Reviewed by supervisor and Experts.

Guidelines

- Front Matter
- Main body
- Back Matter



→ Main Body (b)

1. Introduction
2. Literature survey
3. Methods
4. Results
5. Discussion of Results

Remember - ILMRD or ILMRD

25/8

[12-15-16-3PPT]

- * Research and Project difference.
- * Thesis and Final Project Report

Thesis - Final document

⊖ Records of Achievement.

- Review by supervisor and Experts

- Archived in University library/ GadhCranga Repository.

Introduction chapter of Thesis

Ch-1 Main Theme → why

1. Broad area of Problem (2-3 Para)
2. your Problem (2 Para)
3. Current state of this Problem in global scenario (2 P)
4. Approach taken (1 P)

5. Highlights of Results (2 P)
6. Your contributions (1 P)
7. Organization of this Thesis (1 P)

Note! - Introduction should have structure of funnel

Chapter 2:

28/8

Main Theme = WHO

- Discuss works of others working in areas similar to your problem
- chronological or important first

Ch-3

M. T = HOW

- Basic Theory.
- Approach.
- Analysis, derivations, thems, proofs...
- Your case - study, choice of data, from simulations
- Your Exp! - labs or ~~manual~~ Numerical.

* Need for good Research

- Solid analysis
- Analysis + Simulations based on good data.
- " + Lab Exp
- " + Simulation + Exp

Results! Ch N-3

Main Theme:-

Discussion! Ch N-2

Main Theme = So what

- Interpret your results not Rephrase
- Do not extrapolate - use number not adjective

- Follow standards

Chapter N-1 = Futurworks (few para)

Chapter N = Conclusion or Summary

① FRONT MATTER - Every thing before chapter 1.

- Cover Page from University.
- Page w/ Certification and Signatures
- Title Page
- Dedication
- Acknowledgment and Thanks
- Abstract (500 words)
- Table of Content
- List of figures
- List of Tables
- List of Acronyms

Back Matter ②

- List of Reference
- Appendix 1.2... with long derivations and calculation
- Codes written.

Submission.

- Plagiarism checked
- Fill up the forms
- Submit the thesis

→ After Thesis Submission:

- it is sent to reviewer, selected by authority
- wait for reviews.
- loop for revisions and submission.
- if it is Positive then Defence is arranged by uni.

→ Defence:- Presentation + oral Exams.

- Follow the guidance our Previous Reviewers.
- Dress Properly
- Backup Pen drive, CD-ROM, Laptop in case things fail in exam room.
- Calm & show enthusiasm.
- don't give up - derive the answer.

→ Expectation

- Maintain time.
- understanding of main subject.
- Good understanding of problem and related area.
- Aware of literature esp. the recent paper.
- Understand the results obtained.
- Aware of Contribution.
- Future extension of work.

→ After defence:

- Final Correction
- Final Printing and E-Copy.
- Binding of thesis
- Submission of Copies.
- Continue the research and

- Shows ^{your} learning and scholarship
- Tells the reader the background of your project
- Give credit to other top researchers.

Simple method for lit. Survey

- A simple keywords you want to search
- make various permutation of keywords
- search using search engines for permutation
- search using google scholar

Simple method - contd

- Download items - URL and articles using free software such as OneNote or Zotero
- Make collection of 50-100 you found
- Scan the collection
- Discard
 - Irrelevant items
 - Articles in junk journals
 - Slides and articles written by undergraduates...
- Read remaining
- write comments and notes Zotero or OneNote or R4x
- Set aside
 - old
 - so not relevant
 - Repeats
 - not well understood
- Read remaining critically
 - Follow argu^{derive}ments
 - Re~~derive~~ steps
 - try to re-create the data
 - Summary
 - Grade what you read - n/100 etc.
- Continue c. reading and commenting and summarising
- narrow down to about 10-20 docum. in 30-50 days

- Arrange the top articles / documents
 - Chronologically
 - Relevant twice
- write in English
 - no Bullets
 - no fragments
 - take care of Tense & voice
 - Make it nice and smooth to read
 - do not use idle adjectives

Conclusion

- Searching
- Reading
- Critical writing
- Summarizing

References

→ BiTex

→ Need for References and citation

1) Technical writing and comm.

- Data

- Analysis

- Facts

2) A Lots of reading and thing

3) Reference.

→ Importance of Reference

- Academic Integrity

- Credibility and Authority

- Show that you know

- Avoid Plagiarism/Unethical Practices

1/9

→ Listing of reference:-

- Absolutely necessary

→ Reference management

- need a powerful database software to process according to various style

- Endnote.

- Zotero

- Mendeley

- Jabref

- Libre office write feature.

- Microsoft word feature

* Reference and citation.

1. A master list of books, Journal and conference, papers, webpages, blogs, report, theses
2. Extract the data of those you need.
3. Make a list of reference and cite in style you need.

* Several styles for citation and reference list depends on

- IEEE
- ACM
- MLA
- APA
- Journal
- Conference
- Magazine
- University (for thesis)
- Company (for report)

* various style (Zotero)

• APA.

- In a recent paper (Ghosh, 2019) the complexity of image was explained ...

References

Ghosh, A. and Deb, T. (2019). "Spatial Complexity of Images", (*Optical Eng.*, 52(4)408-411) *Italics*

• IEEE

In a recent paper [3] the complexity of an image was explained ...

References

[1] ...

[2] ...

[3] A. Ghosh and T. Deb, "Spatial Complexity ...", (*Optical Eng.*, Vol 52, pp. ~~408~~ 408-411, Apr. 2019.

* Making references in Latex

`\documentclass{article}`

`\begin{document}`

`\emph{My mother is a \underline{fish}}`

`\cite{wff}`.

* Need to compile the doc. twice.

- B'coz we are using symbol

* Problem with this method

- user is burdened with deciding

* Bibtex.

- Complements latex documents by managing

bibliography and references.

- Minimize the drudgery of formatting, numbering and referencing

- Disadvantages!

- steep learning Curve.

