

Module Seven - Scholarly Communication

Introduction

Scholarly communication is the creation, transformation, dissemination and preservation of knowledge related to teaching and research (1). It is also the system scholars and researchers employ to create, distribute, use and preserve their work.

Academic writing fulfills one or more of the following conditions:

An objective reporting of controlled research, conducted voluntarily or at the request of an organization. A term paper meant for submission in partial fulfillment of an award; a thesis, dissertation or project meant for submission for an award; a research paper meant for scholarly conference or seminar; an article meant for publication in a professional and referred academic journal.

Learning Objectives

At the end of this module, one should be able to:

1. Construct an outline,
2. List the components of a research article,
3. Know the best practices for plagiarism and apply them to any written work
4. Publication
5. Define what an academic journal article is,
6. Identify the three parts of a presentation,
7. Apply the tips for an effective presentation and a PowerPoint presentation.

Learning Outcomes

At the end of the module, one should be able to:

1. Write a term paper,
2. Appreciate the consequences of plagiarism and how it can be avoided,
3. Write a journal article,
4. Learn how to communicate effectively.

Summary of Content

| No. | Content | Methods | Mode of Assessment |
|-----|--|---------------------------|---|
| 1. | Writing of A) Term paper <ul style="list-style-type: none"> • Choosing a topic • Finding information • Gathering notes • Making a tentative outline • Organising notes • Writing a draft copy • Revising and editing draft • Typing the final paper | Lectures Discussions | Question and Answer |
| 2. | B) Plagiarism <ul style="list-style-type: none"> • Definition • Consequences • How it can be avoided | Lectures Discussions | Question and Answer |
| 3. | C) Journal article <ul style="list-style-type: none"> • Introduction • Prose • Style | Lectures Discussions | Question and Answer Practical exercises |
| 4. | D) Communication skills a) Aspects of effective communication <ul style="list-style-type: none"> • Introduction • Body • Conclusion b) Tips to good oral communication c) Tips to power point presentation | Lectures Brainstorming | Practical exercises |

Term Paper

A term paper is a research paper written by students over an academic term or semester which accounts for a large amount of a grade and makes up much of the course. It is generally intended to describe

events, concepts, or argue points. It is a written original work discussing a topic in detail, usually several typed pages in length and is often due at the end of a semester.

Process of Preparing a Term Paper

Step 1: Components of a research paper

Step 2: Choose a topic

Step 3: Find information

Step 4: Gather information

Step 5: Make a tentative outline

Step 6: Organize notes

Step 7: Write the first draft

Step 8: Revise and edit the draft

Step 9: Type final paper

Step 1: Components of a Research Article

Title: It should be concise, informative and clearly indicate the research approach used. It should attract readers interested in this field of study.

Author(s): The purpose is to specify the individuals responsible for the research presented in the paper.

Abstract: Provides a brief summary of the paper. It contains the following information:

- **Introduction:** a few sentences to provide background information on the **problem investigated.**
- **Methods:** techniques used
- **Results:** the major results presented in the paper; provide quantitative information when possible.
- **Discussion:** the authors' interpretation of the results presented.
- **Final summary:** - the major conclusions and "big picture" implications.

Introduction: Provides the reader with background on the research described in the paper. The problem should be clearly identified, significance/justification for the study must be stated and the limitations.

Literature Review: must be up-to-date and clearly identify the gaps in previous studies to justify the need for the proposed research. The review must present a balanced evaluation of literature both supporting and challenging the position being proposed. The important concepts should be identified, stated and references should be included.

Methodology/Methods: This sections serves two functions: (1) to enable readers to evaluate the work performed (e.g., did the authors use the most appropriate and accurate techniques for the work?), and (2) to permit readers to replicate the study if they desire to do so.

Discussion: The purpose is to provide the reader with a plausible interpretation of the data reported and to relate these findings to what other investigators have found.

Conclusion: It should be supported by the results obtained and the implications of the study must be identified.

References: To provide the full citation for article referenced in the text. A complete reference includes all of the authors' names, the title of the article, the journal name, the volume number, page numbers, and the year of publication (2).

Step 2: Choose a Topic

Most good papers are built around questions. Topics can be found in any textbook. Simply take some part of the text that is of interest and examine it carefully. Ask yourself the following things about it to see if you can locate a question to answer in the paper. Does it tell you all you might wish to learn about the subject? Are you sure it is accurate? Does the author make any assumptions that need examining? Can two of the more interesting sections in the text be shown to be interrelated in some useful way? The paper is an attempt to write a well-organized answer to whatever question decided upon.

The most common error made by students in deciding a subject for a term paper is to choose one that is too general. Focus on a limited aspect, e.g. narrow it down from "Neoplasms" to "Spinal Cord Neoplasms". Obtain teacher approval for your topic before embarking on a full-scale research. If you are uncertain as to what is expected of you in completing the assignment or project, re-read your assignment sheet carefully or ASK your teacher.

Select a subject you can manage. Avoid subjects that are too technical, learned or specialized. Avoid topics that have only a very narrow range of source materials. The most specific subject will always have enough aspects to furnish a long paper, if you think about it for a while.

Step 3: Find Information

- Begin by making a list of subject-headings under which you might expect the subject to be listed.
- Start a card file using the following forms

a) Book and magazine article

- Subject
- Author
- Title
- Facts of publication
- Library call number

b) Periodicals

- Author
- Title

- Name of periodical
- Volume and page number
- Month and year

Sort these cards into (a) books and (b) each volume of periodicals.

c) Consult the card catalog or one can use Online Public Access Catalog (OPAC) in the library to locate books - record author, title, publisher, date of publication and call number.

Surf the Net

For general or background information, check out web based information services, special resource materials on CDs and online resources e.g. National Library of Medicine (NLM) Resources [www.nlm.nih.gov], Health Internetwork Access to Research Initiative (HINARI) [www.who.int/hinari] and other search tools as a starting point.

Pay attention to domain extensions, e.g. edu (educational institution), gov (government), or .org (nonprofit organization). These sites represent institutions and tend to be more reliable, but be watchful of possible political bias in some government sites. Read and evaluate. Bookmark the favorite Internet sites, printout, photocopy, and make note of relevant information.

Step 4: Gathering Notes

Skim through the sources, locating the useful material, then make good notes of it, including quotes of information for footnotes. Make these notes on separate cards for each author - identifying them by author.

Take care in note-taking; be accurate and honest. Do not distort the author's meaning. Remember that you do not want to collect only those things that will support the thesis, ignoring other facts or opinions. The reader wants to know other sides of the question.

Get the right kind of material; get facts, not just opinions. Compare the facts with author's conclusion. In research studies, notice the methods and procedures, and do not be afraid to criticise them. If the information is not quantitative, in a study, point out the need for objective, quantified, well-controlled research.

Step 5: Make a Tentative Outline

All points must relate to the same major topic that was first mentioned in choosing the subject. The purpose of an outline is to help one think through the topic carefully and organize it logically before writing starts. A good outline is the most important step in writing a good paper. Check the outline to make sure that the points covered flow logically from one to the other. Include in the outline an INTRODUCTION, a BODY, and a CONCLUSION. Make the first outline tentative.

Example of an outline:

Introduction - (Brief comment leading into the subject matter)

If it is a thesis, state clearly the purpose of the research.. What is the main reason for writing the paper?

State also how you plan to approach the topic. Is this a factual report, a book review, a

comparison, or an analysis of a problem? Explain briefly the major points to cover in the paper and why readers should be interested in the topic.

Example: Thesis statement on “Health maintenance and promotion”.

Body - This is where one presents the arguments to support the thesis statement. Begin with a strong argument, then use a stronger one, and end with the strongest argument for the final point.

Conclusion - Restate or reword the thesis. Summarise the arguments. Explain why you have come to this particular conclusion.

Step 6: Organize Notes

Organize all the information gathered according to the outline. Critically analyze the research data. Using the best available sources, check for accuracy and verify that the information is factual, up-to-date, and correct. Opposing views should also be noted if they help to support the thesis. This is the most important stage in writing a research paper. Analyze, synthesize, sort, and digest the information gathered and hopefully learn something about the topic which is the real purpose of doing a research paper in the first place. Communicate the thoughts, ideas, insights, and research findings to others through written words as in a report, an essay, a research or term paper, or through spoken words as in an oral or multimedia presentation with audio-visual aids. Do not include any information that is not relevant to the topic. Make sure the information that is noted is carefully recorded and in your own words if possible.

NOTE: Plagiarism is definitely out of the question. Document all ideas borrowed or quotes used very accurately.

Step 7: Write First Draft

Start with the first topic in the outline. Read all the relevant notes gathered and those that have been

marked. Write the paper around the outline, being sure that in the first part of the paper the purpose is indicated.

- Statement of purpose
- Main body of the paper
- Statement of summary and conclusion

About composition, traditionally, any headings or sub-headings included are nouns, not verbs or phrases. Keep things together that belong together. Do not change the subject in the middle of a paragraph, and make sure that everything under one heading in the outline is about the same general topic. Avoid short, bumpy sentences and long struggling sentences with more than one main idea.

Step 8: Revise outline and draft

- Read the paper for any content errors.
- Double-check the facts and figures.
- Arrange and rearrange ideas to follow the outline.

- Re-organize the outline if necessary, but always keep the purpose of the paper and the readers in mind. It is a good idea to do this a day or two after having written the first draft.
- Reading the paper aloud is a good way to be sure that the language is not awkward, and that it flows properly.
- Check for proper spelling, phrasing and sentence construction. Be sure that pronouns clearly refer to nouns.
- Check for proper form on footnotes, quotes, and punctuation.
 - Check to see that quotations serve one of the following purposes:
 - Show evidence of what an author has said,
 - Avoid misrepresentation through restatement,
 - Save unnecessary writing when ideas have been well expressed by the original author.

Step 9: Type Final Paper

Read the assignment sheet again to be sure that everything that is expected is understood fully and that the paper meets the requirements as specified by the teacher. Know how the paper will be evaluated. Proofread final paper carefully for spelling, punctuation, missing or duplicated words. Make the effort to ensure that the final paper is clean, tidy, neat and attractive. Aim to have the final paper ready a day or two before the deadline. This gives one a peace of mind and a chance to double-check. Before handing in the assignment for marking ask yourself: “Is this the VERY BEST that I can do?”

Plagiarism

Plagiarism is the use or close imitation of the language and thoughts of another author and the presentation of them as one’s own original work (3). Within academia, plagiarism by students, professors, or researchers is considered academic dishonesty or academic fraud and offenders are subject to academic censure, up to and including expulsion.

It may refer to the use of another’s information, language or writing, when done without proper acknowledgement of the original source. Essential to an act of plagiarism is an element of dishonesty in attempting to pass off the plagiarised work as original. Plagiarism is not necessarily the same as copyright infringement, which occurs when one violates copyright law. Copyright infringement is a violation of the rights of a copyright holder, when material protected by copyright is used without consent. On the other hand, plagiarism is concerned with the unearned increment to the plagiarising author’s reputation that is achieved through false claims of authorship. Like most terms from the area of intellectual property, plagiarism is a concept of modern age and not really applicable to medieval or ancient works.

Consequences of Plagiarism

Academia

In the academic world, plagiarism by students is a very serious offence that can result in punishment such as a failing grade on a particular assignment or for the course (typically at the college or university level). For cases of repeated plagiarism or for cases in which a student commits severe plagiarism such as submitting a copied piece of writing as his or her own work, a student may be suspended or expelled.

Many students feel pressured to complete papers well and quickly, and with the accessibility of new technology (Internet) students can plagiarize by copying and pasting information from other sources.

This is often easily detected by teachers for several reasons. Students' choice of sources is frequently unoriginal; instructors may receive the same passage copied from a popular source by students, lectures may insist that submitted work is first submitted to an online plagiarism detector (4).

Charges of plagiarism against students and professors are typically heard by internal disciplinary committees, by which students and professors have agreed to be bound (5).

Online Plagiarism

Content scraping is a phenomenon of copying and pasting material from internet websites, affecting both established sites and blogs. Free online tools are becoming available to help identify plagiarism and there is a range of approaches that attempt to limit online copying, such as disabling right clicking and placing warning banners regarding copyrights on web pages.

Self-plagiarism

In academic field, self-plagiarism occurs when an author reuses portions of his or her own published and copyrighted work in subsequent publications, but without attributing the previous publications. Identifying self-plagiarism is often difficult because limited reuse of material is both legally accepted (as fair use) and ethically accepted (6).

Some recommended best practices for avoiding issues of self-plagiarism include;

- Provide full disclosure - mention in the introduction that the new or derivative work incorporates texts previously published.
- Ensure there is no violation of copyright; this may require licensing the previous materials from its copyright holder.
- Cite the old works in the references section of the new work. Give factors that justify reuse.

Famous Examples of Plagiarism

According to a Boston University investigation into academic misconduct, Martin Luther King plagiarized approximately one third of his doctoral thesis. He also appropriated others' text, without credit, for his famous speeches, including "I Have a Dream (7)".

Alex Haley was permitted to settle out-of-court for \$650,000, having admitted that he copied large passages of his novel from *The African* by Harold Courlander (8).

Is this Paraphrase Acceptable?

Original:

It is imperative that the rehabilitation practitioner have a basic understanding of self-employment and the wide range of possibilities it offers, as well as the knowledge to assist individuals in identifying the reasons they wish to be self-employed, how self employment would benefit them, and what kinds of support are necessary to be successful.

Paraphrase:

Rehabilitation practitioners must have a basic understanding of self-employment possibilities to assist clients in considering why they wish to be self-employed, how self-employment would benefit them, and what supports they need to be successful (9).

How to Avoid Accidental Plagiarism

- When taking notes, note the source and page number, and put quotation marks around wording from the source. Without quotation marks, you will forget which words were yours and which were not.
- Try paraphrasing as you take notes or use simple key word notes, rather than writing down wording from the original.
- Check all paraphrases against the original. Following the original sentence structure and substituting words here and there is unacceptable (10).

Journal Article

An academic journal is a peer-reviewed periodical in which scholarship relating to a particular academic discipline is published (11). Academic journals serve as forums for the introduction and presentation for scrutiny of new research, and the critique of existing research e.g. East African Medical Journal.

Introduction

Establish the context of the work being reported. This is accomplished by discussing the relevant primary research literature (with citations) and summarizing the current understanding of the problem being investigated.

The first task to accomplish as one begins the process of writing is to order and organise information to be presented. Some people work well from an outline, others do not. Some people write first to discover the points, and rearrange them using an after-the-fact-outline. Whatever process one uses, be aware that scientific writing requires special attention to order and organisation. The formats of journal articles vary, but many follow the general IMRAD scheme recommended by the International Committee of Medical Journal Editors (ICMJE). Such articles begin with an abstract, which is one-to-four paragraph summary of the paper. The introduction describes the background for the research including a discussion of similar research. The materials and methods or experimental section provides

specific details of how the research was conducted. The results and discussion section describes the outcome and implications of the research, and the conclusion section places the research in context and describes avenues for further exploration (12).

Audience: Who will be reading the paper? Usually one will be writing to fellow peers.
Simple advice: Address the paper to another interested biology student, or laboratory group, in this course, and assume that they have at least the same knowledge and experience that you have. Knowing the audience helps to decide what information to include. One would write a very different article for a narrow, highly technical, disciplinary journal versus one that deals with a broad range of disciplines.

Prose

The writing should be in complete sentences and easily understood. It should conform to the conventions of standard written English (sentence form, grammar, spelling, etc.) The ideas will have little impact, no matter how well the research, if they are not communicated well. Choose words correctly and wisely.

It is important to write clearly and concisely. Make sure that every paragraph has a clear topic sentence and that the paragraph content supports the topic. The goal is to report the findings and conclusions clearly, and with as few words as necessary. The audience (other scientists usually) are not interested in flowery prose, they want to know the findings. The standards that a journal uses to determine the publication can vary widely. Some journals, such as Nature and Science have a reputation of publishing articles that mark a fundamental breakthrough in their respective fields.

Remember: Writing and thinking are closely linked enterprises - many people have noted that “fuzzy writing reflects fuzzy thinking”. When people have difficulty translating their ideas into words, they generally do not know the material as much as they should.

Style Considerations

- **Be clear and concise:** Write briefly and to the point. Say what you mean clearly and avoid embellishment with unnecessary words or phrases. Brevity is very important. Use of the active voice shortens sentence length considerably. For example:

Active Voice: Health workers need to advise women in the antenatal period on diet especially on foods which are rich in vitamin C.

Passive Voice: There is need by the health workers to advise women in the antenatal period on diet especially on foods which are rich in vitamin C.

The former is simple and straightforward; the latter is wordy and clumsy. Occasionally you will have no choice but to use passive—for instance, when the subject of the sentence is unknown—but in most cases you should use the active voice.

Precise word use is critical. Scientific terminologies carry specific meanings; learn to use them appropriately and consistently. A critical function of technical terminology is to say a lot with a few words, i.e., economy. Direct the paper toward the average reader in the intended audience.

Things to Note

Abbreviations: Do not use abbreviations in the text except for units of measure. Always abbreviate these when using them with data (2mm; 10 min.).

Use Past Tense: Research papers reflect work that has been completed, therefore use the past tense throughout the paper (including the introduction) when referring to the actual work done, including statements about the expectations or hypothesis. Use the past tense, as well, when referring to the work of others that may be cited.

First vs. Third Person: If there is only stylistic area where scientific disciplines and journals vary widely, it is the use of first vs. third person constructions. Some disciplines and their journals (e.g., organism biology and ecology) have moved away from a very strict adherence to the third person construction, and permit limited use of the first person in published papers. Limit use of first person construction (i.e., I or we) undertaken this study...), usually it is most acceptable in the Introduction and Discussion sections, and then only to a limited extent. Use first person in the methods sparingly if at all, and avoid its use in the results

Use Active Verbs: Use active verbs whenever possible; writing that overly uses passive verbs (is, was, has, have) is not good to read and almost always results in more words than are necessary to say the same thing.

The clarity and effectiveness of writing will improve dramatically as one increase the use of active voice. For example:

Sample: According to the certification theory, there is no intrinsic relation between creativity and IQ. **Revision:** Certification theory posits no intrinsic relation between creativity and IQ.

References to the research findings of others are an integral component of any research paper. The usual practice is to summarise the findings or other information in one's own words and then cite the source. Any ideas or other information that are not one's own must be substantiated by a reference that is cited in the text. As a rule research papers, direct quotations and footnoting are not practiced - simply restate the author's ideas or findings in your own words and provide a citation.

Communication Skills

Communication is the ability to use language (receptive) and express (expressive) information or is a set of skills that enables a person to convey information so that it is received and understood. Effective presentation and public speaking skills are important in business, training, teaching, lecturing and generally entertaining an audience. Developing the confidence and capability to give presentations, and to stand up in front of an audience and speak well, are also extremely helpful competences for self-development. The presentation should have three parts; an introduction, body and conclusion.

Introduction

Introduce the topic, but also arouse interest of the audience in the topic. Get the attention of your audience by involving them in your topic. You can do this by asking a question, offering an interesting fact, using a quotation or telling a short story.

Preview the content of the presentation by offering a brief outline of what will be discussed. You may also want to include why you chose this topic.

The Body

The body of the presentation should support the introduction by offering facts, opinions, and reasons to support the topic. It should contain at least three ideas with supporting details to illustrate the point.

The Conclusion

The conclusion should restate the main points without giving examples. Think of it as a brief summary which emphasizes what the audience should remember. Conclude with a recommendation, a personal thought, an observation, or a question. The closing statement (the last statement) should pull the presentation together.

Tips to Good Communication

Dos

- Try to create a positive impression right from the beginning - ‘first impression, lasting impression’; first impression influences the audience’s attitude to the presenter.
- Choose the right words and language - the American vs British spelling matter.
- Appearance - Dress appropriately for the occasion.
- Always introduce and conclude - put a head and tail on the body of your presentation.
- KISS (Keep it simple and short)
- Organise and clarify ideas in your mind before you attempt to communicate them. If you are feeling passionate about a topic, you may become garbled if you haven’t already thought of some key points to stick to when communicating it.
- Think about setting the listener at ease before launching into the conversation or presentation. It can help sometimes to begin with an interesting anecdote. Not only does it help the listener identify you as someone like them, it can also help ease you into the conversation or presentation.
- Stay on topic. Once you start addressing your three main points, make sure all facts, stories, allusions, etc., add to the conversation.
- Look on the Internet for examples of great speakers in action. There are plenty of role models instantly accessible through videos online. Treat them as your “personal communication coaches”.
- Use facial expressions consciously. Aim to reflect passion and generate empathy with the listener by using soft, gentle, and aware facial expressions. Avoid negative facial expressions such as frowns or raised eyebrows.
- Communicate eye to eye. Eye contact establishes rapport, helps to convince that you are trustworthy, and displays interest. During a presentation, it is important to look into the other person’s eyes if possible and maintain contact for a reasonable amount of time (but don’t overdo it; just as much as feels natural, about 2-4 seconds at a time).
- Use hand gestures carefully. Be conscious of what your hands are saying as you speak. Pay attention to the gestures as you make them; it also helps to watch other people’s hand gestures to see how they come across to you.
- Remove distractions. Turn off the cell phone and put away the iPod. Do not allow external distractions to act as crutches that keep sidetracking your concentration.
- Thank the person or group for the time taken to listen and respond. No matter what the outcome of your communication, even if the response to your talk or discussion has been

negative, it is good manners to end it politely and with respect for everyone's input and time.

Don'ts

- Avoid use of jargon and complex technical terms
- Avoid vague and general/sweeping statements
- Avoid mixing facts with opinions, views and perceptions
- Avoid offensive phrases such as; without wasting your time any further, I hope I am not boring you!

Introduction to Presentation Skills with a Focus on PPT

Research findings can be presented as power point (ppt) or as posters. Poor presentation negates the otherwise good research findings.

We all look forward to delivering a successful presentation.

Tips

- Use a template already provided in MS office.
- Avoid different styles, colours and slide designs in one presentation - you want the audience to focus on what you present, not the way you present it.
- Illustrations: - figures, tables, photos are good summary of research findings.
- Use proper animation.
- Use the slides only to convey the main points and in a summary form.
- Do not read the slides but present them; If all you are going to do is read from the slides or overheads, then just send the slides!
- Avoid reading full text as you present.
- Take some time to practice on memorizing what you want to say, and the examples to give, use the slides to keep yourself on track.
- Learn the simple key "enter" or clicking the mouse to avoid asking people to "enter" or "next" for you.
- Time is important so you must prepare well and time your presentation to avoid embarrassment.
- Avoid long sentences - remember it is "power point" not "power sentence"! Tips: Caps and Italics

Do not use all capital letters because they make text hard to read, conceal acronyms and deny their use for EMPHASIS.

Do not use italics except for "quotes", highlighting thoughts or ideas, book, journal or magazine titles.

Tips: Colours

Colour can be a powerful tool for presenting information, but can also be distracting, reds and oranges are difficult to stay focused on; greens, blues and browns are better.

White on dark background should not be used if the audience is more than 20 feet away. It is

harder to read the further away you get.

The recommended colour combination is a dark background with light colour text. The best option is to use the template.

Tips: Background vs. Templates

The easiest and best way is to use a template, which has ready-made colour combinations. If you choose not to use a template, and prefer 'backgrounds' as a guideline, pick a background colour and use three additional colours of text for maximum impact.

Tips: Bullets

Keep each bullet to one line, two at the most (ideal!)

Limit number of bullets to six per screen, four if there is a large title, logo, etc. Crowded text looks busy and hard to read.

Tips: Font

Choose a font that is easy to read, e.g. Roman, Verdana, Tahoma. Stick to one or two types of font sizes.

Bulleted points should not be less than 28 points.

Titles/headings should not be less than 32 points.

Finally

Always have a back-up copy e.g. send it to your e-mail and carry at least two printed copies (note the difference in printing slides vs handouts, etc.).

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Definition of Terms

Scholarly communication - Standard ways of providing of information by authors for publications

Term paper - Students presentations of researched coursework or assignments at the end of a term

Plagiarism - Academic theft normally done by students who just copy and paste from Internet and copying without providing citations of print sources.

Journal - A publication which is periodically, if not regularly, issued and provides research reports by specialists in a particular field of knowledge.

Communication skills - Proper ways of talking to people in understandable manner especially in learning environment.