Scholarly Writing II

How Scientists Communicate

Anatomy of Written Communication

The anatomy of key written reports is specific to the particular format:
1. Abstract
2. Paper critique
3. Theme report
4. Press release
5. Letter to the editor
6. Research article

Anatomy of a Research Article

Elements
1. Title
2. Abstract
3. Introduction/background
4. Method
5. Results
6. Discussion
7. References
Anatomy of Written Communication

The title of an report is an important, but frequently poorly written component

1. Use active language
2. Keep it relatively brief (15-20 words max)
3. Inform the reader of the nature of the study
4. Include the names of the variables
5. State the results/findings, if possible

Title, con’t

6. Avoid the use of comical terms
7. Do not include specific data
8. Do not include statistical results
9. Define any abbreviations that are used
10. Avoid unnecessary jargon
11. Include species, if appropriate
12. Do not pose a question

Anatomy of a Research Article

Title

Should summarize and provide an indication
Contrary to some published guidelines, try to avoid posing a question in the title of research papers. However, letters to the editor often use this style.

_Do Response Modality Effects Support Multiprocessor Models of Divided Attention?_

_Do Occupational Stereotyping Still Exist?_

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**Title: Original Research/Report of Experiment**

A bad title

_Anxiety and Problem Solving_

A good title

An even better title

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**Title: Original Research/Report of Experiment**

A bad title

_Facial Memory by Old and Young_

A good title

An even better title
Title: Original Research/Report of Experiment

A bad title
Smoking Rates in Adults
An acceptable title
Reducing Smoking in College Students
A title typically seen

An even better title

Title: Review or ‘State of the Art’ Articles

“A Contemporary Learning Theory Perspective on the Etiology of Anxiety Disorders”
“Promoting and Protecting Youth Mental Health Through Evidence-Based Prevention and Treatment”
“Investigating the Pharmacological and Nonpharmacological Factors That Modulate Drug Reinforcement”
“Race and Jury Selection: Psychological Perspectives on the Peremptory Challenge Debate”
“Is There a Health Benefit of Reduced Tobacco Consumption? A Systematic Review”

Anatomy of a Research Article

Abstract
1. Adhere to points described earlier.
2. It is a summary of the report.
3. Include points from each of the main elements of a paper.
4. Provide 4-5 “key” words that can be used to search for this article once it is published.
### Introduction/Background
1. Outline the problem that has been studied.
2. Review past research and theories relevant to the problem.
3. End with the hypothesis and/or expectations and rationale for the study.
4. This introduces the problem to the target audience and needs to be tailored as such.

### Method
1. Divide into sub-sections to improve clarity (at least in your drafts).
2. Provide enough details so that study can be replicated.
3. An overview of the design can be helpful.
4. Describe the subject population, how they were recruited, how many, sex, age range, height and weight, etc.
5. Refer to informed consent and approval by an Institutional Review Board.
6. Describe all procedures used and cite sources of specific instruments.
7. Describe the data collection methods
8. Describe the method of data analyses, including statistical tests used.
9. Identify any special equipment used.
Anatomy of a Research Article

Results
1. Present the findings in three ways:
   a. 
   b. 
   c. 
2. Follow a logical order of presentation--headings often help.
3. Refer to the figures/tables in the text.
4. Avoid any interpretation of the results.

Anatomy of a Research Article

Discussion
1. Review the research from various perspectives.
2. Do the results support the hypotheses?
3. Assess any problems/limitations.
4. Discuss how the results compare with past research.
5. Do not use direct quotes.
6. Suggest practical applications of the research*.
7. Suggest ideas for future research*.

*not always done
Scientists: Types of Papers/Reports

Brief Report
A brief (1-3 journal pages) description of a research project that is either: 1) limited by an experimental detail; 2) has a small sample size; 3) reports negative findings; 4) deals with a relatively new topic. The intent is often to gain rapid publication of a finding that has high impact to the field. The paper is peer reviewed and may be cited.

Anatomy of a Research Article

References
1. Compile them as they are entered.
2. Use an index card system or…
3. Use an electronic reference manager such as End-Note of RefWorks.
4. Always access the primary source (do not rely on a citation in another paper/book chapter).
5. Pull references from electronic searches.
Anatomy of a Research Article

References--from the WWW
1. Do not use the web as a primary source in your papers.
2. You can use the web to identify the primary sources.
3.

Anatomy of a Research Article

Order of Writing the Elements of a Paper
1.
2.
3.
4.
5.
6. 
compile the reference list as you write!

Writing a Research Report

Introduction
Specific rules vary among disciplines and journals.
Rules also may vary by audience (class, thesis, journal).
Always consult the specific journal!

Format in this class from the Publication Manual of the American Psychological Association, 6th Edition
Writing a Research Report

Basic Rules
• Report must be written with sufficient details so that the study can be replicated.
• Report should be free of inappropriate language that is insensitive or biased.
• Report should contain your own words; all work of others should be properly cited.
• Other’s actual words must be placed in quotations

Writing a Research Report

Using Quotations
• Your readers are more interested in your words, not a distillation of someone else’s prose.
• Over reliance on direct quotes suggests that you cannot write your own text.

Writing Style

Acknowledging the work of others
• Avoid the temptation to fill paper up with many short or a few long quotes from the work of others.
• This can be distracting and counterproductive; it also is a “lazy” way to make a point as one is not required to actually write!
• The paper will not be as interesting and will be disjointed.
**Writing Style**

**Acknowledging the work of others**

You must ________ distinguish your own words and ideas from those of others.

If you use a direct passage, you must present it in quotations and cite the source.

Plagiarism is unacceptable and can result in *serious* consequences!

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**Writing Style**

**Why pay attention to style?**

A poorly written report cannot be replicated. Poor grammar, punctuation and careless mistakes reflect on the quality of the rest of the research. Inattention to details of the written report raises concern about the attention paid to the actual conduct of the research.

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**Writing Style**

**Clarity**

• Be precise and clear--relate to your audience.
• Avoid unnecessary jargon.
• Define unique items, tests, questionnaires and equipment.
• Define any abbreviations the first time used.
• Report should have a coherent structure.
• Present ideas in an orderly and logical manner.
Writing Style

Clarity

- Use an outline to organize your thoughts.
- Some word processors have such features.
- Alternative style is to free associate a first draft and then develop the outline later.
- It helps to let the first draft sit for a day before editing.
- Second and third drafts should begin to remove spelling/grammatical errors.

Writing a Research Report

“Active” versus “passive” voice

Passive voice is overused as it is mistakenly thought to be more “scientific”

Consider these sentences:
- It was found by Jones and Smith (1996) that mice prefer...
- Participants were administered the drug after a 10-minute rest.
- Participants were read the instructions by the experimenter.

Active alternatives:
- It was found by Jones and Smith (1996) that mice prefer...
- Participants were administered the drug after a 10-minute rest.
- Participants were read the instructions by the experimenter.
Writing a Research Report

Biased Language
be sensitive of your language so that it does not convey bias regarding age, sex, sexual orientation, race/ethnicity, disease, etc.

Example: Korean Americans is more specific and accurate than “Asians”.

Writing a Research Report

Ethnicity & Race
There are certain acceptable terms such as Black, African American, Latino, Asian, Asian American.

Be aware of the specific term that your participants use to describe themselves.

Writing a Research Report

Biased Language
Also be sensitive to individuals with a medical or psychiatric disorder.
“we tested autistics for...”
“we tested people with autism for...”

Avoid the use of the term “normals”
“diabetics were compared to normals on the basis of...”
“patients with diabetes were compared to those without diabetes and were matched on the following...”
“individuals with and without diabetes were compared.”
Gender versus Sex

gender refers to males and females as social
groups; how that person is responded to by
social institutions (social interactions).

sex refers to the biological, biochemical and
physiological aspects of being male or
female (e.g., hormones, chromosomes,
reproductive organs).

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Gender versus Sex--Example

The profile/epidemiology of diet pill abuse is
a gender issue because women tend to
be more concerned about their weight
than men.

Differential cardiac response to acute doses of
da diet pill is a sex-related difference
between males and females, and may
even vary across menstrual cycle.

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Avoiding ‘Sexism’

Man is not the only host for this parasite.
Revised:
Humans are not the only host for this parasite.

TJC standards state that a nurse should
complete her medication rounds by mid shift.
Revised:
TJC standards state that nurses should complete
their medication rounds by mid shift.
Writing a Research Report

Don’t make nouns into verbs:
Was the suspect ‘mirandized’?
Did you read the suspect his Miranda rights?

Proper use of punctuation:
Comma vs. semicolon

Word Usage:
Which vs. That
Which vs. What

Writing a Research Report

Redundancies

Unnecessary words and phrases

Jargon and ‘shortened’ words

High pH values have been observed to occur in areas that have been determined to have few pine trees.

High pH values occur in areas with few pine trees.

Writing a Research Report

Word Usage:
The effect of misuse of words, or, how the misuse of words affects me and you.

Rule 1: Applies in 90 of 100 cases. ‘Affect’ is a _____; ‘effect’ is a _____.
The drug _________ memory. The drug has an ________ on memory.

Rule 2: Applies in 8 of the 10 remaining cases. ‘Affect’ is a noun meaning ‘emotional state’; ‘Effect’ is a verb meaning ‘to produce’.
The depressed patient had flat affect; antidepressants affected a change in his condition.

Rule 3: Remaining 2 of 10 cases: Guess or just flip a coin!
Format for Assignments

Word Processors

• Double space with 1.25” margin on left and right side
• Header on first page with name, course number, date
• Number all pages
• Provide word count at end
• Use word processor functions -- it contains many helpful tools such as a spell checker, word count, thesaurus, grammar analyzer, and outliner

Organizing a Research Report

Title page

• Separate page, (numbered as 1) that contains the title.
• Running head is a short title (or an abbreviated version) of the paper.
• Use the “header” feature of the word processor so it appears on every page.
• Also have the date scribed on the footer--this aids in identifying the last version.
Abstract

Objective: Animal studies suggest that kudzu extracts reduce alcohol consumption and we recently demonstrated that short-term kudzu extract treatment reduced alcohol drinking by men and women during a single drinking session in a simulated natural setting. The present study was conducted in alcohol-dependent men to assess the efficacy of four weeks of kudzu extract in an outpatient setting.

Method: a randomized between-subject, double-blind, placebo-controlled study involved two weeks of baseline, four weeks of treatment, and two weeks of follow-up observations. Seventeen non treatment-seeking men (21-33 years) with a diagnosis of alcohol abuse/dependence received either kudzu extract (250 mg isoflavones, t.I.d.) or placebo. They reported their alcohol consumption and desire to use alcohol with a wrist actigraphy device and daily diaries. Weekly laboratory visits were scheduled to monitor liver function and side effects. Treatment continued for 4 weeks; follow-up continued for an additional 2 weeks.

Results: Kudzu extract significantly reduced the number of drinks consumed per weekday although there was no effect on self-reported craving for alcohol. Kudzu extract had no effect on blood chemistry, vital signs, or liver function, and was undetected by the participants.

Conclusions: A formulation of kudzu extract containing a high concentration of isoflavones is without side effects, is well tolerated and significantly reduces alcohol consumption in non treatment-seeking alcohol-dependent men over a four-week period. Studies using treatment-seeking alcohol dependent persons will be necessary to gauge the impact of this herbal preparation in treating alcoholism.

Key Words: Humans, alcohol abuse, alcoholics, herbal treatment, pharmacotherapy