

SSCI E-100a: Proseminar in Research Methods and Scholarly Writing

Scholarly Writing I

How Scientists Communicate

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Scholarly Writing

Purpose: To communicate clearly, succinctly, and effectively with

- Fellow scientists
- The scientific community
- Law makers, Public policy makers
- The general public

Result: Transmission of scientific knowledge

What do Scientists write?

There are 10 major types of papers that scientists write:

- meeting abstract
- press release
- letter to editor/editorial
- case report
- review article
- book chapter
- book
- book review
- brief report
- research article (*journal*)

What do Students write?

There are 5 major types of papers that students write:

- abstract
- paper critique
- theme/argument
- research thesis
- literature thesis

The GOAL: Master's Thesis

Students--Types of Papers/Reports

Abstract

- A brief summary of a full paper or report that has been read.
- The abstract contains all of the major elements of the paper (in an abridged format) as well as the conclusions of the original author.
- The abstract should also contain the authors' _____.

Anatomy of an Abstract

Five items should be addressed in an abstract

1. Descriptive but concise title
2. Introduce the issue
3. Offer a general idea of the methods
4. State the key findings of the study
5. Discuss the findings and offer a _____

Generally, references and detailed statistics are not included.

Anatomy of an Abstract

Key points

1. Often limited to 250 words
2. Written in full and proper sentences
3. Must provide details of the study
4. Do not say “the implications of the findings are discussed...”
5. Electronically archived in searches

Competing Visual and Olfactory Imagery Tasks Suppress Craving for Coffee
 Eva Kemps and Marika Tiggemann
 Flinders University, Adelaide, South Australia

Using the elaborated intrusion theory of desire as a theoretical basis, the present experiments investigated whether mutual competition between modality-specific tasks and desire-related imagery can suppress cravings for caffeine—in particular, coffee. Data from a pilot survey (Experiment 1) in 106 female undergraduate habitual coffee drinkers showed that coffee cravings are characterized predominantly by sensory images in the visual, olfactory, and gustatory modalities. Experiments 2 and 3 tested the prediction that a competing visual or olfactory imagery task would reduce such cravings, relative to an auditory imagery task. In each experiment, 90 female undergraduate habitual coffee drinkers were asked to forego their morning cup of coffee and were subsequently exposed to pictures of coffee (Experiment 2) or actual coffee (Experiment 3). After the craving induction protocol, participants completed either a visual, auditory, or olfactory imagery task with neutral (i.e., non-coffee-related) content. As predicted, the visual and olfactory imagery tasks reduced participants' cravings for coffee, whereas the auditory task did not. Imagery techniques in the visual or olfactory domain could provide a useful adjunct to the behavioral regime of caffeine fading for consumers who are trying to quit caffeine use or reduce their intake.

Keywords: craving, caffeine, coffee, imagery, craving reduction

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journal homepage: www.elsevier.com/locate/ypmed

Lower neighbourhood walkability and longer distance to school are related to physical activity in Belgian adolescents

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ARTICLE INFO	ABSTRACT
<p><small>Available online 11 March 2009</small></p> <p>Keywords: Physical activity Walkability Active transport Distance to school</p>	<p>Objective: To investigate whether adolescents living in a high-walkable town centre are more physically active than those living in a less-walkable suburb.</p> <p>Methods: The cross-sectional study was conducted in Belgium. Data collection took place in spring 2007. One high-walkable urban neighbourhood and one less-walkable suburban neighbourhood were selected, based on objective connectivity and residential density. The hundred twenty adolescents (12–18 years, 60 per neighbourhood) completed the Neighbourhood Environmental Walkability Scale (NEWS), the Neighbourhood Physical Activity Questionnaire (NPAQ), were a questionnaire for 7 days, and filled in an activity log.</p> <p>Results: In contrast with the expectations, adolescents living in the less-walkable suburb reported 220 min/week more cycling for transport than those living in the high-walkable town centre. A trend towards significance was found for more step counting with 171 more steps/day for suburban adolescents. Travel time to school was 7.4 min less for urban adolescents.</p> <p>Conclusions: In contrast with previous results in adults, lower walkability and larger distance to school was associated with more physical activity in Belgian adolescents. Therefore, physical environmental interventions designed for adults, focusing on increases in connectivity, residential density and connectivity, might not be effective for Belgian adolescents.</p> <p style="text-align: right;"><small>© 2009 Elsevier Inc. All rights reserved.</small></p>

Students--Types of Papers/Reports

Paper Critique
A short paper (typically < 3 pages) that reviews the strengths and weaknesses of a paper or book chapter that the student has read.
The aim is to demonstrate level of comprehension of the paper and to evaluate its value, accuracy and significance to the field.
Ultimately, such reviews are used to integrate the paper into a thesis.

Anatomy of a Paper Critique

Key points

1. Begin with a brief summary of the paper
2. Identify specific “_____”
3. Identify specific “_____”
4. Identify methodological pitfalls
5. Rate the relative importance of them
6. Assess whether the author’s conclusions are justified and valid
7. Offer alternatives, if possible

Students--Types of Papers/Reports

Term/Argument Paper
-A paper of moderate length (typically 10-15 pages, but may be as high as 30) that provides a description and analysis of an assigned topic.

- It shares many elements with the journal article and contains proper citations to the sources of information.

- Graphs and tables may be used to convey points of interest.

Anatomy of a Term/Argument Paper

Key points

1. Develop a descriptive title
2. Provide detailed abstract
3. Review the literature and offer a rationale for the theme of the paper
4. Provide concise, but accurate, background
5. Clearly state your hypothesis
6. Cite studies that support your hypothesis

Anatomy of a Term/Argument Paper

Key points

7. Also point out those that do not support your original hypothesis
8. State your conclusions and offer supporting evidence
9. Provide a list of cited references

Anatomy of a Term/Argument Paper

Additional details of a research-based report

1. Describe your methods
2. Present your results in descriptive and graphic/tabular formats
3. Conduct proper statistical analyses

Students--Types of Papers/Reports

Research Thesis

- A long report (up to 300 pages) on a topic that is first researched in the literature, and then experiments are designed and conducted in order to test a proposed hypothesis.
- The thesis contains all of the elements of a scientific report, but with much greater detail.
- Often, the thesis can be distilled into a publishable paper or papers.

Students--Types of Papers/Reports

Literature Thesis

- A long report (up to 300 pages) on a topic that is researched from reading and extracting key elements from the salient literature.
- The thesis contains a hypothesis that is pursued via a review and analysis of published literature.
- The author's conclusions are built upon the results of these sources.

Scientists: Types of Papers/Reports

Meeting Abstract

- A brief summary of the observations made during the conduct of an experiment.
- The intent is to convey the background, methods, results and interpretations to an audience, typically at a scientific meeting.
- The abstract is often given as a verbal report, but can be presented as a poster as well.

Scientists: Types of Papers/Reports

Press Release

Typically a relatively brief description of ongoing or recently published research.

The key element is that it must be written for the lay public, be free of jargon and offer clear "sound bites" that can be easily remembered and repeated.

Seven horizontal lines for writing notes.

Anatomy of a Press Release

Key points

1. Short and appealing title
2. State the issue in one to two sentences
3. Capture the audience's attention
4. Write in short sentences that are free of scientific jargon
5. Write for 8th grade level
6. Summarize findings in clear manner
7. End with a strong "punch line"

Seven horizontal lines for writing notes.

Press Release

Kudzu cuts alcohol consumption

The weed that whacks binge drinking

By William J. Cromie
Harvard News Office

The vine that ate the South has a sobering effect on binge drinkers.

Researchers at McLean Hospital in Belmont, Mass., suspected that excessive drinking might be curbed by giving drinkers an extract of kudzu, a pesky, rapidly growing weed common in the Southern states. They knew it has been used for that purpose in China since 600 A.D. More recently, other researchers at Harvard University tested it on golden hamsters, bred and born to drink alcohol, and found that it reduced the rodents' intake.

"Kudzu is not going to take someone who drinks 30 beers a week and turn him or her into a teetotaler, but you might go from 30 to 15 a week. It's not a panacea or a magic bullet, but it looks like it could be a tool for people to reduce their drinking."

Seven horizontal lines for writing notes.

Scientists: Types of Papers/Reports

Letter to the Editor

Typically a brief letter that describes a very limited aspect of a problem, comments on a prior paper or voices an opinion about a particular topic.

One or two citations are often included for reference.

Anatomy of a Letter to Editor

Key points

1. State reason for letter in first sentence
2. Refer to cited study, if applicable
3. Be brief and to the point
4. Support your position with data or cited references
5. Conclude in one sentence
6. Be cautious when criticizing the work of others...

Letter to Editor

To the Editor: Because of their loyalty to primary medicine, Fincher and also Whitcomb and Cohen miss a crucial factor: family practice is no longer a viable specialty. The exponential growth of medical knowledge prevents any single physician from being adequately versed in all areas of medicine.

There is another solution: increasing the number of well-trained nurse practitioners, a strategy that would fill the need for primary care and allow medical students to pursue specialty training. The quality of care provided by nurse practitioners has been shown to be similar to that provided by family physicians.¹ Moreover, like family physicians, nurse practitioners refer complex cases to specialists, thereby improving patients' care, since the most highly qualified clinicians then provide treatment.

Some of the anxiety physicians feel about nonphysician clinicians can be allayed in several ways: by increasing the number of physicians who teach in these graduate programs, by increasing the exposure of nurse-practitioner students to clinical settings, and by setting up collaborative practices between physicians and nurse practitioners.

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References
1. Mundingler MO, Kane RL. Health outcomes among patients treated by nurse practitioners or physicians. JAMA 2000;283:2521-2524

Scientists: Types of Papers/Reports

Case Report
- A brief description of observations or an experiment carried out in very few subjects (often only one).

- Commentary is minimal and the conclusions are preliminary.

- Reports are anecdotal in nature and stem from intuition, clinical experience, hindsight, etc. but usually stimulate further research in an area. It is peer reviewed and can be cited.

Anatomy of a Case Report

Key points
1. Short and descriptive title
2. Briefly state the background, issue or supporting literature for your study
3. Present the details of the case in narrative format
4. Eliminate all subject/patient identifying information
5. Offer an interpretation of the findings

Anatomy of a Case Report

Key points

6. Identify limitations of interpretation (other than the obvious small sample size)
7. Suggest alternative explanations
8. Suggest directions for further research

Case Report

Kaposi's sarcoma in homosexual men—a report of eight cases.

Hymes KB, Cheung T, Greene JB, Prose NS, Marcus A, Ballard H, William DC, Laubenstein LJ.

Lancet. 1981 Sep;2(8247):598–600

[PubMed ID: 82012452]

Scientists: Types of Papers/Reports

Review Article

An invited paper that compiles and interprets the historical and/or current knowledge about a topic. It is far more comprehensive than a book chapter and often contains hundreds of references. The aim is to synthesize the problem(s) and arrive at some conclusion about the status and future direction of the topic. Typically reviewed and edited by 1-3 scientists and may be cited.

Review Article

Pathological gambling: A review of the literature
(prepared for the American Psychiatric Association task force on DSM-IV committee on disorders of impulse control not elsewhere classified)

Henry R. Lesieur¹ and Richard J. Rosenthal²
(1) Department of Sociology & Anthropology, St. John's University, 11439 Jamaica, NY, USA
(2) Department of Psychiatry, UCLA School of Medicine, USA

Abstract This is a review of the literature on pathological gambling prepared for the work group on disorders of impulse control, not elsewhere classified of the American Psychiatric Association. It introduces the new DSM-IV criteria as well as outlines the phases of the career of the pathological gambler. Research discussed includes that on pathological gambling and psychiatric disorders, substance abuse, family issues, children, finances, and crime. Psychoanalytic, personality, behavioral, sociological, psychologically based addiction theories, and physiological research are also summarized. Finally, treatment outcome studies are outlined.

Scientists: Types of Papers/Reports

Book Chapter

A paper of variable length that typically offers a review of a particular topic.

Often the major points are made via reference to previous research.

The author is invited to write the chapter by the editor, who also reviews the content. However, the rigor of the review is less than that for an original research report.

These may be cited, but caution should be exercised.

Horizontal lines for notes.

Scientists: Types of Papers/Reports

Book

A long treatise on a particular topic, often via invitation by a publisher.

The goal is primarily to teach the reader about a topic using the literature, independent and unpublished observations, knowledge gained via reading, experience in the field or surveys from the population.

Often read only by copy editors and can be cited with caution.

Horizontal lines for notes.

Pathological Gambling: Etiology, Comorbidity, and Treatment
Nancy M. Petry, PhD



Part I: Foundations for Understanding
Chapter 1: Introduction
Chapter 2: Terminology, Prevalence Rates, and Types of Gambling
Chapter 3: Assessment
Part II: Etiology
Chapter 4: Demographic Correlates
Chapter 5: Comorbidity with Other Disorders
Chapter 6: Neurobiology and Genetics
Part III: Research on Interventions
Chapter 7: Pharmacotherapies
Chapter 8: Recovery Without Professional Intervention
Chapter 9: Therapy for Families and Significant Others
Chapter 10: Psychoanalytic and Psychodynamic Treatments
Chapter 11: Early Behavioral Treatments
Chapter 12: Cognitive Biases and Cognitive Therapy
Part IV: A Treatment Model
Chapter 13: Cognitive-Behavioral Therapy
Chapter 14: Brief and Motivational Interventions
Part V: Conclusions
Chapter 15: Prevention: Focus on Gambling in Youth and Young Adults
Chapter 16: Conclusions

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Scientists: Types of Papers/Reports

Book Review

A commentary of variable length that points out the strengths, weaknesses and impact of a book written by another author.

The content is full of the author's opinions and usually ends with a level of enthusiasm or recommendation.

Generally is not cited in other papers.

Scientists: Types of Papers/Reports

Research Article

A report of variable length that describes in detail the background, methods, results and interpretation of an experiment or series of experiments conducted by the author(s). The details must be sufficient to allow reproducibility and the data presented clearly in graph or tabular format. Full citations to prior work must be made. Papers are peer reviewed and can be cited.
