

PYSC 224

Introduction to Experimental Psychology

Session 11 – Reading and Writing of Research Reports

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Session Overview

- Doing a literature review involves a systematic and detailed search of all types of published information to obtain relevant information on a specific topic
- Sources of information include academic texts, journals, long essays, dissertation/ thesis, newspapers, archived information, images, conference proceedings, audio and video recordings etc, Doing a good literature review set you off to write a research proposal
- Once a proposed research has been conducted and data has been analysis then a research report has to be written to communicate the findings of the research to the public

Session Goals and Objectives

At the end of this session, you should be able to

- Outline step by step how to do a literature review
- List possible databases from which you can do a literature search
- Outline how to write a research proposal
- Distinguish between a research proposal and a research report
- Outline how to write a research report using the APA format

Session Outline

The key topics to be covered in the session are as follows:

- How to do a Literature Search
- Writing a Research Proposal
- Writing a Research Report using APA format

Reading List

- Christensen, B.L. (2007). *Experimental Methodology* (10th ed.). Boston: Allyn & Bacon. (p. 444-474)
- Kantowitz, B. H., Roediger III, H. L., Elmes, D. G. (2015). *Experimental Psychology*. Stamford: Cengage Learning (p. 114 – 163)
- Martin, D. W. (2008). *Doing Psychology Experiments*. Belmont, CA: Thomson Higher Education (p. 270 – 304)

Topic One

HOW TO DO A LITERATURE SEARCH

Literature Search

- A systematic and detailed search of all types of published information to get relevant information on a topic of interest
- A thorough review is needed to do a good research
- Sources of information include academic texts, journals long essays, dissertation/ thesis
- Others- Newspapers, archived information, images, conference proceedings, audio and video recordings etc.

Why do a Literature Search?

- To review already existing information- theories, current findings, critical opinions
- To form a bases (justification) for your own research you want to conduct
- To knowing what has been done to prevent unnecessary duplication
- To enable you compare your research findings with existing literature

Doing Literature Search

- 1. Do some background reading
 - ❑ Textbooks, journal articles and other materials
- 2. Use your title to identify search words/ terms
 - ❑ Identify as many key terminology associated with the topic as possible
 - ❑ E.g. Important authors, theories/concepts, key findings, words in your title etc.

Literature Search

- 3. Identify the resources to search
 - No one single source of information will contain all the information you need
 - From University of Ghana Balme library website, you can access many different online resources covering different subject areas
 - Different types of databases- E.g. JSTOR, Medline, CINAHL, EBSCOhost, Project Muse, Science Direct, etc.

Literature Search

- 4. Search using the following search techniques
 - Avoid using 'simple' or 'basic' search option
 - Preferably, use the 'advanced search' to enable you use the following techniques
 - a) Databases of journal articles- insert asterisk (*) at the end of the 'stem' of a word to automatically search for all endings for that word stem e.g. psychology

Literature Search

- b) Link terms together with either the connecting word '*and*' or the connecting word '*or*'
 - '*and*' will narrow the search to find only results that contain both terms
 - '*or*' will broaden the search to find any results that contain either or both terms
 - c) Variant spellings- Databases will only match on the specific word entered

Literature Search

- ❑ d) Finding phrases- If your search terms is a phrase (string of words), insert your search terms in quotation marks “...,E.g. “cancer patients”
- This way the words always appear immediately next to each other in the search results
- ❑ e) Search current and up to date material- you can limit your search to only articles published within a certain period- e.g. from 2000 onward

Literature Search

- 5. Organise your results
 - Organise the materials you find in order of priority
 - You can create folders according to your core materials and other materials
 - Where core or important references are not full text you can request Balme library to order the full paper

Topic Two

WRITING A RESEARCH PROPOSAL

Writing a Research Proposal

- A research proposal outlines how a researcher intends to conduct a study
- Once you have done a thorough literature search and refined your research questions, you write a research proposal
- As the name suggests it is a report which proposes and outlines what your research questions are, and how you intend to investigate these questions

Writing a Research Proposal

- Thus, a research proposal is written in future tense rather than present or past tense
- Its outline is similar to that of a research report
- The difference is that a proposal ends with a method section - it does not include a result or discussion section

Writing a Research Proposal

- Thus, a research proposal includes:
 - ❑ Title (research topic)
 - ❑ Names of Author(s) & Affiliation
 - ❑ Abstract (optional)
 - ❑ Introduction (background of the study, statement problem, aims, relevance)

Writing a Research Proposal

- ❑ Literature review (theoretical framework, review of related studies, rationale/ justification hypotheses)
- ❑ Method (participants, instruments/ materials, design of the study, procedure, proposed analysis)
- ❑ Expected outcome of the research

Topic Three

WRITING A RESEARCH REPORT USING APA FORMAT

Research report writing

- A research report is written to communicate the findings of a study that has been conducted
- Without this, the others will not know what been investigated and what has been found
- Thus, a research report outlines how a study was conducted and the findings of the study

Research report writing- Outline

- 1. Title
- 2. Names of Author(s) & Affiliation
- 3. Abstract
- 4. Introduction
- 5. Method
- 6. Results
- 7. Discussion
- 8. Reference
- * 9. Appendices

1. Title

- This summarizes the main idea of the research
- It should cover the main idea of the research that was conducted in just a few words
- It should inform readers about the variables and relationship being studied, so one can tell what the whole study is about

1. Title

- Make your title eye catching, otherwise readers may skip it
- Avoid words that will not serve any useful purpose
- ~~An Experimental Study of the Effect of Motivation on the Performance of Primary School Children~~
- Recommended title length for any title is 10 to 12 words

2. Names of Author(s) & Affiliation

- The name of the author(s) and the institution(s) where the study was conducted, immediately below the title
- The preferred format is to list first names, middle initial and last name with no titles and degrees
- Affiliation- the organizations that provided the facilities or support for the research- usually a University, College, or an Institute

3. Abstract

- This is a comprehensive summary of the whole research report
- It introduces the report, allowing readers to decide whether the report appears relevant to their own interests
- It should include a sentence or two about each of the four main sections of the whole report
- Word count may vary from journal to journal- typically range from 150-300 words

4. Introduction

- This is the first section of the report
- Usually begins with a description of what is already known about the research topic (background information) and a statement of purpose of the study
- It is funnel shaped- it is broad at the beginning and narrow at the end, leading into a statement of the variables to be investigated
- Then, follows the aims and relevance of the study

4. Introduction

- Also includes a literature review- a description of past research and theory that are directly related to the present study
- The final part states the rationale for the study and the hypotheses to be tested
- Note- The literature review may be separated from the introduction for students' reports but not manuscripts (for journals)

5. Method

- The second section of the report and the heart of the report (McBurney, 2001)
- It tells the reader exactly how the study was conducted
- It allows the reader to replicate the study
- It has the following subsections-

a. Participants or Subjects

- Describes the participants/ subjects that were tested
- Human participants- who they were, how many were tested, their demographic variables
- Also, how they were selected, assignment to groups, number who did not complete the study
- Animals subjects-mention species, the name of the supplier and his/her location etc.

b. Materials or Apparatus

- This describes the materials or apparatus used, what they were used to test and why they were used
- Apparatus refers to equipment such as recording devices, physiological devices etc.
- E.g.- a one-way mirror, a biofeedback machine, a lie detector, a glucometer

b. Materials or Apparatus

- If you used any equipment, provide its name, model, the name of the manufacturer etc.
- Material refers to written materials e.g. questionnaire, writing task etc.

c. Design

- State the research method used
- If it is an experiment, you state the number of independent variables used and their levels and the dependent variables measured (2 x 3 factorial design)
- State whether it is a repeated measures design etc.
- Also state which variables were randomized, which were counterbalanced etc.

d. Procedure

- A step-by-step account of what both the experimenter and participant did during the study
- Includes how they were selected and assigned to the various groups instructions given to participants etc.
- Procedures used to obtain informed consent should also be reported
- Method used for debriefing should be described

6. Results

- Reports the data that was collected and how it was analysed (statistical test) and what the outcome of the analysis was
- The results are presented (usually in past tense) without discussing the finding
- First, state which statistical test was used for the various hypotheses, then present any descriptive statistics, then present the inferential statistics

7. Discussion

- Interprets and evaluates the results obtained, and the implications of the results obtained
- It interprets what the results mean and relates it to the literature
- It also focuses on the theoretical contribution the study makes to existing knowledge
- Then outlines the similarities and difference between the findings and previous findings

7. Discussion

- First, you summarize the purpose of the study and the expected outcome
- Then report whether or not the results obtained are consistent with the expected outcomes (hypotheses)
- Then interpret the results, telling the reader what you think they mean
- If you did not obtain the expected results, discuss possible explanations

7. Discussion

- Discuss limitations or shortcomings of your study
- State any major and minor flaws that could be corrected in a subsequent study and outline the direction that future research can take
- Also discuss implications of the research and practical applications
- Brief conclusion summing up main findings

8. Reference

- Provides an accurate and complete list of all the references cited in the report
- Do not omit any source cited or include any source that was not cited
- Presented in alphabetical order with the second and subsequent lines indented to the right
- Note that, the source of the information/ a journal may determine how a reference is written

9. Appendices

- This include copies of ethics approvals, sample of questionnaires used, list of stimulus words, instructions, etc.
- Might be appropriate when necessary material would be distracting in the main body of the report
- It is rarely provided in manuscripts submitted for publication
- Students' reports such as long essay or dissertations include appendices

END OF SESSION 11



References

- American Psychological Association. (2010). Publication manual of the American Psychological Association (6th ed.) Washington, DC: Author

