MCAC 105
Unit 5
Report Writing

Unit 5 Syllabus

Report writing:

- topic,
- assumptions,
- hypothesis,
- overview,
- analysis and
- discussion,
- conclusion, appendices, references

What is a Report?

A report is a completed study that reports an investigation or exploration of a problem, identifies questions to be addressed, and includes data collected, analyzed, and interpreted.

Difference Between Report & Proposal

Report

- A report is prepared after a study is completed.
- A report communicates what was actually done in a study, and what resulted.

Proposal

- A proposal is Prepared before a study begins.
- A proposal communicates a researcher's plan for a study.

Difference Between Research Report & Article

Report

- A report is a primary source.
- it reports the methods and results of an original study performed by the researcher.

Article

- An article is a secondary source.
- It does not report original research by the author.

Structure Of A Report

The report format mainly consists of three main sections:

1) The Introductory Section
2) The Main Body Of The Report
3) The Reference Section

1) The Introductory Section

a) Title Page
b) Acknowledgments (if any)
c) Table of Contents
d) List of Tables (if any)
e) List of Figures (if any)
f) Abstract

1) The Introductory Section

a) <u>Title Page:</u>

- Title Page identifies the title of the report, the name of the researcher, the name of the guide, institution, month and year of submission.
- The title should communicate what the study is about. A well constructed title makes it easy for the reader to understand and determine the nature of the topic .

b) Acknowledgments:

This page permits the writer to express appreciation to persons who have contributed significantly to the research.

c) Table of Contents:

The table of contents is an outline of the report that indicates the page number on which each major section and subsection begins.

d) List of Tables:

A list of all the tables included in the report along with the page numbers should be provided.

e) List of Figures:

A list of all the figure included in the report along with the page numbers should be provided.

f) Abstract:

The abstract is a brief but comprehensive summary of the research report. It includes a concise statement of the goal of the research, the type of participants and instruments, outlines the methods, major results and conclusions.

Abstract must be limited to a specific number of words, usually between 100 and 500 words.

2) The Body Of The Report

1. Introduction

a) Statement of the Problem
b) Significance of the Problem
c) Purpose
d) Statement of Hypothesis
e) Assumptions
f) Limitations
g) Definition of important Terms

2.2. Review of Related Literature (analysis of previous research)

3. Design of the Study

a) Description of Research Design and Sources of Data

b) Sampling Procedures

c) Methods and Instruments of Data Gathering

d) Statistical Treatment

2.4. Analysis of Data

text with appropriate

a) Tables

b) Figures

5. Results And Discussion

a) Major Findings (reject or fail to reject Ho)

6. Summary and Conclusions

a) Conclusions

b) Recommendations for Further Investigation

3) The Reference Section

a) References/ Bibliography
b) Appendices

2) The Body Of The Report

Introduction:

- The Introduction section provides the theoretical framework of the study within which the research has been conducted, background information of the topic as well as the need for and rationale for the research, to make the material more logical, useful and interesting for readers.

- The introduction begins with a description of the research problem or topic and includes objectives, significance of the problem, research questions, statement of hypothesis(if any).
- It also includes the assumptions of the study(if any), definition of important terms, limitations and delimitations of the study.

2) Review of Related Literature

- The Review of Related Literature indicates what is known abo the problem or topic.
- Its function is to educate the reader about the area under stu

3) Design of the Study

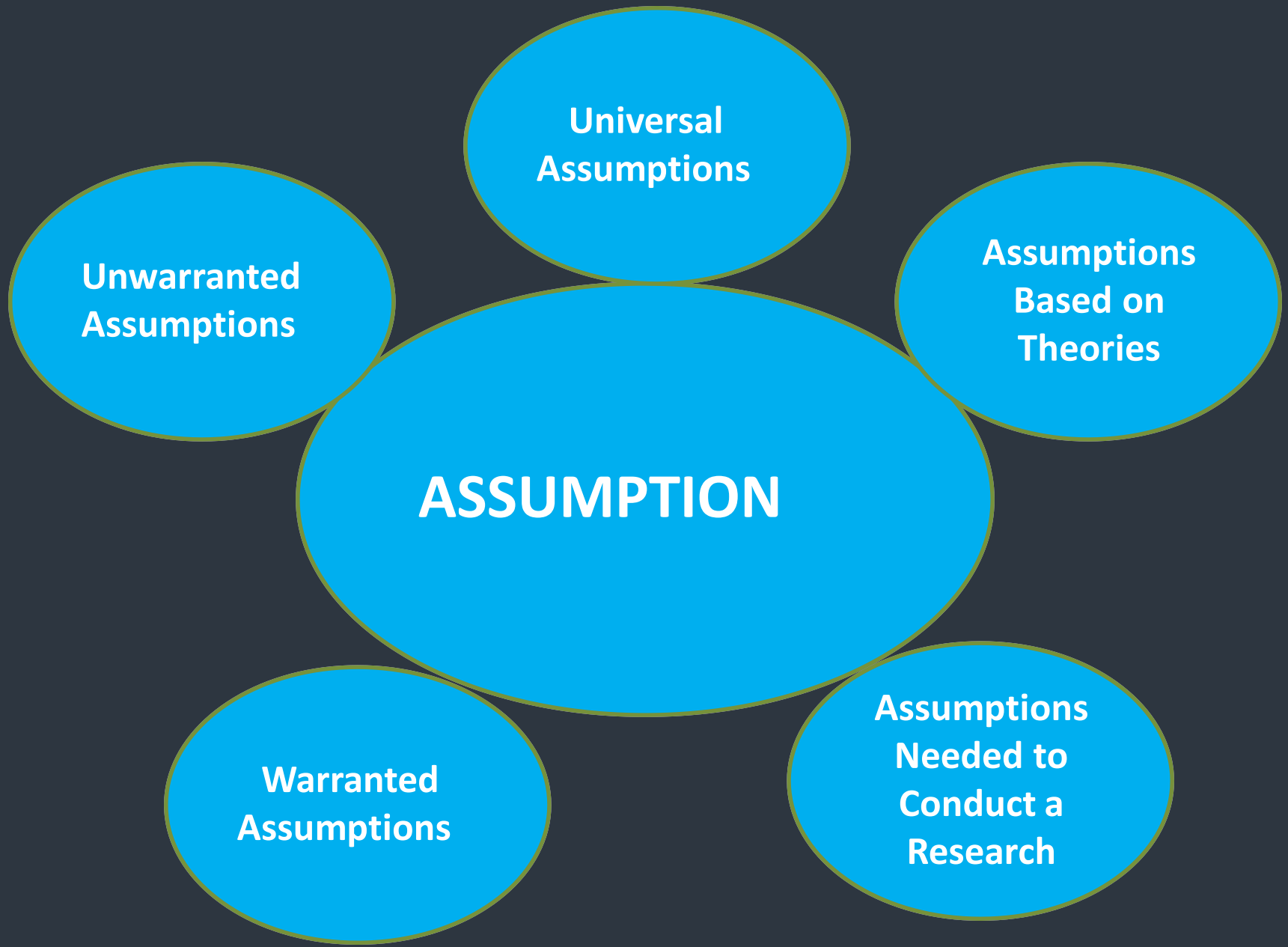
- This section provides a detailed description of the methodolo used in the study. e.g. population, sample size and sampling techniques and tools used in the study.
- The purpose of this section is to describe in detail how a researcher performed the study so that someone should be a to replicate the study based on the information that a resear provide in this section.

Assumption

a realistic expectation which is something we believe to be true

In other words, it is an act of faith which does not have empirical evidence to support it

Provides a basis to develop theories and research instruments and, therefore, influences the development of the research process


Universal Assumptions
Unwarranted Assumptions
Assumptions Based on Theories
ASSUMPTION
Warranted Assumptions
Assumptions Needed to Conduct a Research

Universal Assumption

beliefs that are assumed to be true by a large part of society, albeit testing such is not always possible

E.g, people either go to heaven or hell right after they die;

Assumptions Based on Theories

When used in a study, an assumption based on a theory may become the assumption of the study

Assumptions Needed to Conduct a Research

some "common-sense" assumptions may be developed to conduct a particular study
i.e. people in urban cities have higher risk of lung cancer (due to air pollution) than those in rural areas

Warranted Assumptions

stated with evidence that supports it

i.e. praying regularly brings success because they boost morale

Unwarranted Assumptions

stated without evidence supporting it

i.e. God is everywhere

Hypothesis Defined

a formal tentative statement of the expected relationship between two or more variables under study

helps translate the research problem and objectives into a clear explanation or prediction of the expected results or outcomes of the research study

Importance of Hypothesis in Research

enables the researcher to objectively investigate new areas of discovery, thus providing a powerful tool for the advancement of knowledge

provides clear and specific goals to the researchers which, in turn, will give basis for selecting sample and research procedures to meet these goals


Theoretical or Conceptual Frameworks
Academic Literature
Sources of Hypothesis
Previous Research
Real-life Experiences

Characteristics of a Good Hypothesis

Conceptual Clarity

should consist of clearly defined and understandable concepts. It should be stated in very simple terms, the meaning & implication of which cannot be doubted. To facilitate the conceptual clarity, hypothesis can be stated in a declarative statement, in present tense.

Characteristics of a Good Hypothesis

Empirical referents

Study must have an ultimate empirical referent. No usable hypothesis can embody moral judgments. A good hypothesis must have empirical basis from the area of inquiry

Characteristics of a Good Hypothesis

Objectivity

Hypothesis must be objective, which facilitates objectivity in data collection & keeps the study activity free from researcher-value judgment

Characteristics of a Good Hypothesis

Specificity

It should be specific, not general, & should explain the expected relations between variables.

i.e. regular yoga reduces stress

Characteristics of a Good Hypothesis

Economical

The expenditure of money and the time can be controlled if the hypotheses underlying the study undertaken is good

Characteristics of a Good Hypothesis

Availability of techniques

The researchers must make sure that methods are available for testing their proposed hypotheses

Characteristics of a Good Hypothesis

Testability

Hypothesis should be testable and should not be a moral judgment. It must be directly/indirectly observable & measurable.

The researcher can set up a situation that permits one to assess if it is true or false. It must be verifiable.

Simple and Complex Hypothesis

Simple and Complex Hypothesis

Simple hypothesis

It is a statement which reflects the relationship between two variables.

Simple and Complex Hypothesis

Simple hypothesis

i.e. ‘the lower the level of hemoglobin, the higher is the risk of infection among post partum women’

Simple and Complex Hypothesis

Complex hypothesis

It is a statement which reflects the relationship between more than two variables

Simple and Complex Hypothesis

Complex hypothesis

i.e. ‘satisfaction is higher among patients who are older and dwelling in rural area than those who are younger and dwelling in urban area’

Null and Research Hypothesis

Null and Research Hypothesis

Null Hypothesis

- also known as statistical hypothesis
- used for statistical testing & interpretation of statistical outcomes
- states the existence of no relationship between the independent & dependent variables
- i.e. ‘there is no relationship between smoking and the incidence of coronary artery disease’

Null and Research Hypothesis

Research Hypothesis

It states the existence of relationship between two or more variables

‘there is relationship between smoking and the incidence of lung cancer.

- For a qualitative study, this section may also include a detailed description of the nature and length of interactions with the participants. The description of participants includes information about how they were selected and mainly representative of the population.
- The description indicate the purpose of the instrument and the validity and reliability of the instrument.

4) Analysis of Data

- This section describes the statistical techniques or the inferential interpretations that were applied to the data and the result of these analyses.
- Tables and figures are used to present findings or graphic form which add clarity in findings for a reader.

5) Results And Discussion

- The Results section is to tell the reader what was found in the study.
- it includes the descriptive statistics for the relevant variables (e.g mean, standard deviation).Then tell the reader what statistical test you used to test your hypothesis and what you found.

- The Discussion section is where the researcher interprets and evaluates the results.
- The discussion of a research report section presents the theoretical and practical implications of the findings and make recommendation for the future research.

Discuss the results of the current study, explaining exactly what was found.

Account for the research findings, relate back to the previous research and theories highlighted in the introduction

Discuss the limitations of the current study and provide ideas for future research. End with a conclusion.

6) Summary and Conclusions

- Conclusions is a summary of the main ideas that come out from the discussion.
- It draws all arguments and findings together.
- It indicates whether hypothesis were accepted or rejected.
- It summarize major findings of the study.
- The purpose of this section is to evaluate interpret the result, especially with respect to the original research question.

3) The Reference Section

References/ Bibliography:

The References section provides the reader with all the information needed to seek out and obtain all original sources used in the research. it is written in the alphabetical order.

Appendices:

This section provide a place for important information.it includes tools prepared by the researcher and used in the study.it may be lettered, interview, names, raw data and data analysis sheets.

Appendix

An **appendix** can be understood as that section added at the end of the book or report which contains subsidiary matter relating to the main idea of document or book. It contains data which is not very essential to explain your findings, but it supports the analysis, assists the user to understand the research work and provides background material.

BASIS FOR COMPARISON	ANNEXURE	APPENDIX
Meaning	An annexure is a set of legal documents, which are added at the end of the report or book, to validate the information provided in the main text.	An appendix refers to an extension to the research paper, that contains information which is too detailed to put in the main document or report.
Standalone document	Yes	No
Comprise of	It contains relevant papers or proofs that validate the main body of the report, or document.	It contains essential background details.
Includes	News articles, reports, affidavit, etc.	Graphics, tables, charts, statistics, figures, etc.
Mainly used in	Business	Research
Prepared by	Not prepared by the author of the main document	Prepared by the author of the main document

References and Bibliographies

- What's the difference?

When you write academic papers, you will need to include a list of sources you used to write the paper. There are two main ways to list your sources, with a reference list or a bibliography.

References include sources that have been directly cited in your paper. For each source, you will have at least one in-text citation in the body of your paper. The citation styles that use reference lists include APA citations, AMA citations, and MLA citations.

Bibliographies, on the other hand, contain all the sources that you have used for your paper, whether they are directly cited or not. In a bibliography, you should include all of the materials you consulted in preparing your paper. Chicago citations and Oxford citations are two citation styles that use bibliographies.

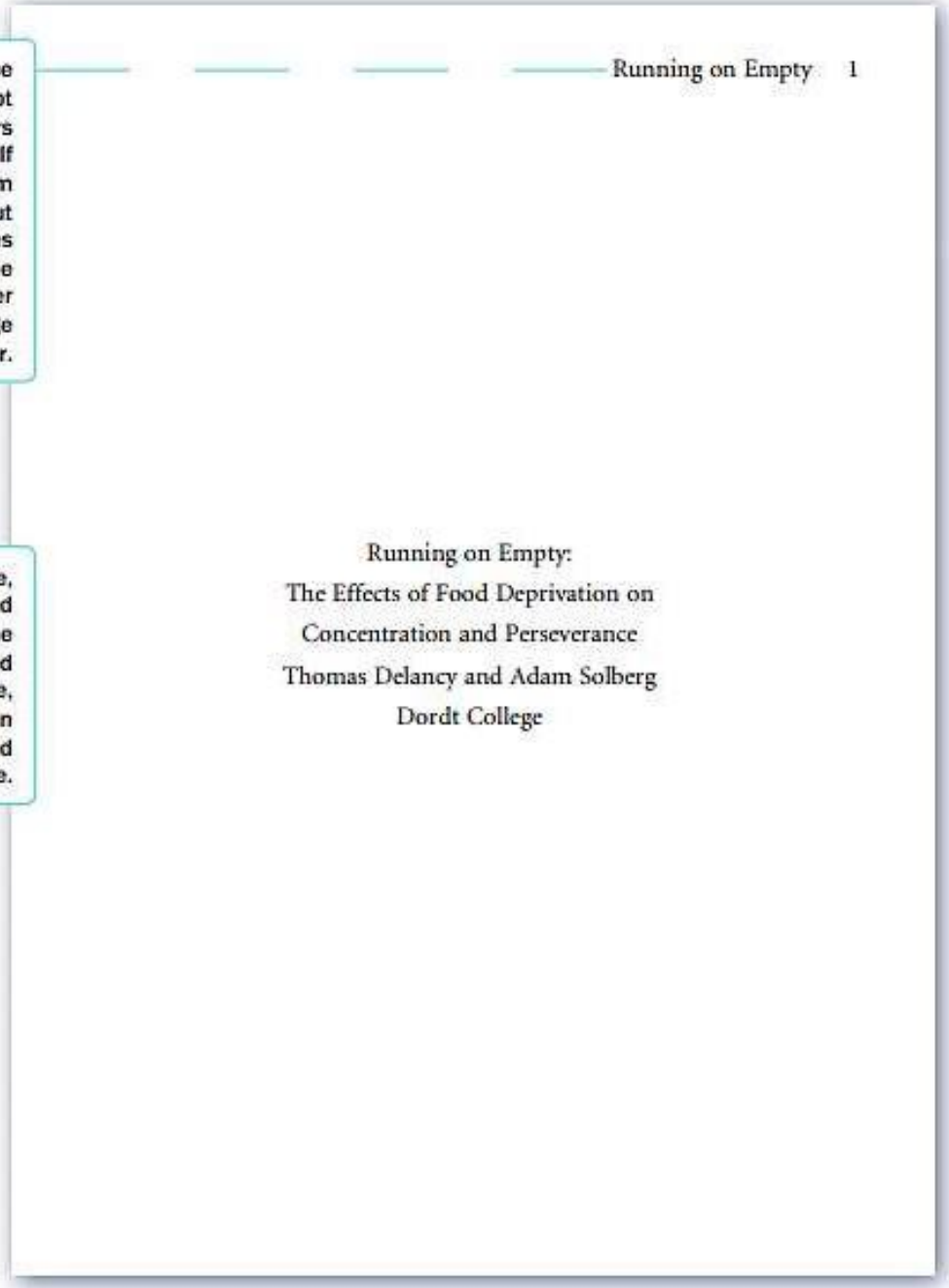
Both reference lists and bibliographies appear at the end of a written work and are usually organized alphabetically. A paper can have both a reference list and a bibliography.

SAMPLE APA RESEARCH PAPER

Sample Title Page

Place manuscript page headers one-half inch from the top. Put five spaces between the page header and the page number.

Full title, authors, and school name are centered on the page, typed in uppercase and lowercase.



Sample abstract page

Abstract

This study examined the effects of short-term food deprivation on two cognitive abilities—concentration and perseverance. Undergraduate students (N-51) were tested on both a concentration task and a perseverance task after one of three levels of food deprivation: none, 12 hours, or 24 hours. We predicted that food deprivation would impair both concentration scores and perseverance time. Food deprivation had no significant effect on concentration scores, which is consistent with recent research on the effects of food deprivation (Green et al., 1995; Green et al., 1997). However, participants in the 12-hour deprivation group spent significantly less time on the perseverance task than those in both the control and 24-hour deprivation groups, suggesting that short-term deprivation may affect some aspects of cognition and not others.

The abstract summarizes the problem, participants, hypotheses, methods used, results, and conclusions.

Sample Introduction Page

Center the title one inch from the top. Double-space throughout.

The introduction states the topic and the main questions to be explored.

The researchers supply background information by discussing past research on the topic.

Running on Empty: The Effects of Food Deprivation on Concentration and Perseverance

Many things interrupt people's ability to focus on a task: distractions, headaches, noisy environments, and even psychological disorders. To some extent, people can control the environmental factors that make it difficult to focus. However, what about internal factors, such as an empty stomach? Can people increase their ability to focus simply by eating regularly?

One theory that prompted research on how food intake affects the average person was the glucostatic theory. Several researchers in the 1940s and 1950s suggested that the brain regulates food intake in order to maintain a blood-glucose set point. The idea was that people become hungry when their blood-glucose levels drop significantly below their set point and that they become satisfied after eating, when their blood-glucose levels return to that set point. This theory seemed logical because glucose is the brain's primary fuel (Pinel, 2000). The earliest investigation of the general effects of food deprivation found that long-term food deprivation (36 hours and longer) was associated with sluggishness, depression,

Sample Results Section

Results

The writers summarize their findings, including problems encountered.

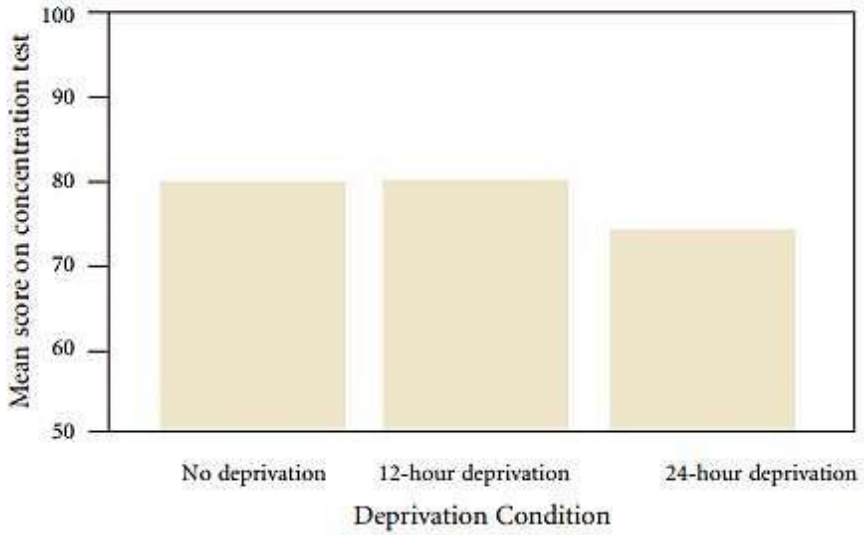
Perseverance data from one control-group participant were eliminated because she had to leave the session early. Concentration data from another control-group participant were dropped because he did not complete the test correctly. Three manipulation-check questions indicated that each participant correctly perceived his or her deprivation condition and had followed the rules for it. The average concentration score was 77.78 (SD = 14.21), which was very good considering that anything over 50 percent is labeled "good" or "above average." The average time spent on the puzzle was 24.00 minutes (SD = 10.16), with a maximum of 40 minutes allowed.

"See Figure 1" sends readers to a figure (graph, photograph, chart, or drawing) contained in the paper.

We predicted that participants in the 24-hour deprivation group would perform worse on the concentration test and the perseverance task than those in the 12-hour group, who in turn would perform worse than those in the control group. A one-way analysis of variance (ANOVA) showed no significant effect of deprivation condition on concentration, $F(2,46) = 1.06$, $p = .36$ (see Figure 1). Another one-way ANOVA indicated

All figures and illustrations (other than tables) are numbered in the order that they are first mentioned in the text.

Figure 1.



Sample References Page

All works referred to in the paper appear on the reference page, listed alphabetically by author (or title).

Each entry follows APA guidelines for listing authors, dates, titles, and publishing information.

Capitalization, punctuation, and hanging indentation are consistent with APA format.

References

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