

**ANDREWS UNIVERSITY
STYLE & FORMAT MANUAL FOR
PHYSICAL THERAPY**

Editor: Lynn Millar
Revised: 2005

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RESEARCH PAPER FORMAT

For all papers in PT courses, unless other specific instructions given by course instructor.

- I. **Title Page** - (If paper is more than 2 pages long) All centered.
 - A. Title
 - B. "Presented in partial fulfillment of the requirements of"
Course # and name
 - C. by - *your name(s)*
 - D. Date
- II. **Body of Text**
 - A. Headings and subheadings - are not required, but may be used if they aid in organization of the paper.
 - B. References in text - Each citation is numbered immediately following the authors' names, unless author(s) is not being mentioned. If author is not being cited, the citation goes at the end of the sentence in which the reference is introduced. References are numbered in order of presentation, and the number is either superscripted or in parentheses. Titles of authors are not appropriate in the text, and for references in which there are more than one author, the appropriate citation would be the "*first authors last name et al* (eg, Millar et al¹ found...).
- III. **Reference Style**
 - A. Listed in order of appearance in text, and with numerical order in the list. The reference numeral is not superscripted (some automatic footnote programs result in this numeral being superscripted) Each reference is divided by periods into the following groups (listed in order):
Author(s), title, edition, imprint(place and name of publisher, date of publication, volume number, issue number, inclusive page numbers), physical description, series statement, and supplementary notes. (See page 11 of Style Manual)
- IV. **Typing**
 - A. Spacing - One and a half or double spaced for the body of the text, unless otherwise notified by your instructor. References for papers may be single spaced, with a space and a half or double space between references.
 - B. Page numbering - Center bottom of page, starting with the first page of the text.
 - C. Font - Regular style, traditional fonts such as New York, Times, etc. Do not use unique styles, as they are difficult to read. Bold should be reserved for headings and subheadings. Size should be 10 or 12 letters to an inch.
 - D. Margins - 1" all margins.

CAPSTONE PROPOSAL ARRANGEMENT

- A. Title of Research Study - "brevity should not reduce clarity"
- B. Names of Investigators
- C. Aim(s) of study - A brief statement of the problem
- D. Significance of Study - A brief statement identifying the importance of the study to Physical Therapy
- E. Related Research - Approximately 2-3 pages reporting the highlights of important supporting research/clinical practice
- F. Procedure of the Study - "the principal part of the proposal"
 - 1. Sample - brief description of the subjects, how you will obtain them, and how the welfare of the subjects will be protected.
 - 2. Method - Details of procedure and methods for data gathering
 - 3. Design & Analysis – Study design; How the data will be analyzed or examined
- G. Time, Space, Equipment
 - 1. Time – Outline with the projected time frame for the study: preparation, data collection, data analysis, writing
 - 2. Space – Identification of research space - where it will take place and methods for requesting permission
 - 3. Equipment - An indication of the equipment needed, and how it will be obtained if the department does not have it
- H. Cost analysis – A detailed estimate of cost, with identification of external resources
- I. Research Committee Chair - Identify Chair
- J. References - a list of a few of the articles identified in the Related Research Section
Reference format is that approved by the APTA.
- K. Attachments - Consent form and any other paper form which the subject will be filling out or which will be given to the subjects; letters of permission from facilities.

ANDREWS UNIVERSITY INSTITUTIONAL REVIEW BOARD REQUIREMENTS

The Institutional Review Board of Andrews University reviews all proposals for research with human subjects by Andrews University faculty, staff and students. The IRB requires submission of the "Application for Approval of Research Involving Human Subjects" and the research proposal in departmental format (outlined on the previous page). The number of complete packets required by the HSRB is four (4) for expedited reviews. Seven copies are required for a full review.

Exemptions from review are noted on the IRB Form, however, even if exempt from review, a complete application must be filed with the HSRB.

IRB Forms are available from the Research Coordinator or from the Office of Scholarly Research. A copies of the IRB forms are included in the course materials for Scholarly Research and Dissemination.

ETHICS

The phrase "scientific misconduct" has been identified to describe ethical problems that have been identified in scientific and academic publications. The American Medical Association Manual of Style¹, details some of the important concepts of scientific misconduct. These include *Misrepresentation*, *Interference*, and *Misappropriation*. *Misrepresentation* includes three areas – fabrication, falsification, and omission (of facts), all which result in deception. *Misappropriation* includes plagiarism and breaches of confidentiality. There are four types of plagiarism, with the commonality being the failure to give proper credit to the true author. As noted in the DPT and post-professional student handbooks, any of these actions are unethical and may result in dismissal from the program.

CAPSTONE PROJECT - ARRANGEMENT

<u>Part of Paper</u>	<u>Page Content</u>	<u>Remarks</u>
Abstract	Blank page	Not counted or numbered
	Abstract Title page	See Sample A. Not counted or numbered.
Preliminary pages	Structured Abstract	See Sample B. Word limit: ~200 words (1 page).
		Numbered at bottom of page, lower-case Roman numerals, Centered.
	Title page	See Sample C. Counted but not numbered.
	Approval Sheet	See Sample D. Counted but not numbered.
	Dedication	Optional. Numbered iii.
	Table of Contents	See Sample E. Must reflect the first three levels of headings. Numbered iii, or iv if there is a dedication
	List of Figures (or illustrations)	See Sample F. Only if two or more figures.
	List of Tables	See Sample G. Only if two or more tables.
	List of Abbreviations	Optional.
Text	Preface	
	/Acknowledgments	
		Numbered with consecutive Arabic numerals. Numbering is centered 3/4" from bottom of each page. (Numbers are outside the 1" margins)
	Introduction	Includes introductory remarks and review of literature (See pg 8 for subheadings).
	Methods	Details the procedures and specific methods of the study.
	Results	Presents data in written and tabular form.
	Discussion	Analyses the results, compares and contrasts to existing literature, etc.

	Conclusion	Summarizes the purpose and findings of the paper.
Reference pages		Numbered consecutively in Arabic numerals.
	References	See editorial style for details.(Appendix H)
	Cover sheet	Optional - to group appendix material. Counted, but not numbered.
	Appendix(es)	Each appendix is listed separately by letter in the table of contents. Numbered as if divisions of paper; centered, bottom at first page of each appendix.
	Blank page	

ABSTRACT

The abstract consists of a title page and the abstract (Sample A & B). Abstracts of capstone projects are limited to approximately 200 words (one page). Abstracts are structured with the following headings (in bold, all caps): **PURPOSE, METHODS, RESULTS, and CONCLUSION.**

PRELIMINARY PAGES

TITLE PAGE

The title page information includes the school, college and department. Title of the study, degree for which submitted, author's names and date. No line in the title or heading may exceed 48 spaces. Titles or headings needing more than 48 spaces are arranged on two or more lines in an inverted pyramid form. Titles requiring more than two lines are single spaced. (Sample C).

APPROVAL SHEET

Approval page will include the title of the study, degree which submitted for, authors' names, Names and degrees of committee members with signature lines, Chair listed first, and Date approval line. (Sample D)

TABLE OF CONTENTS, ILLUSTRATIONS, AND FIGURES

Should reflect the main headings, as typed, with page number of first page of that section. Main headings are completely capitalized. Wording for the illustrations or figures should exactly replicate that of the initial portion of the legend. (Samples E, F & G)

BODY OF TEXT

INTRODUCTION

The format approved by the APTA utilizes an introduction that is continuous with a comprehensive review of the literature pertinent to the study. The first few paragraphs should start with the broad scope of relevance of the area to physical therapy. After the introductory paragraphs, there will be the following subheadings, with appropriate information for each:

Statement of Purpose

Hypothesis(es)

Limitations

Definition of Terms (Optional)

Review of Literature

Summary

METHODS

Information within the methods section should be organized by subheadings : **Sample**; **Procedure** (step by step organization and design); **Instrumentation** (equipment, calibration), and **Data Analysis**.

RESULTS

A brief written summary of the descriptive data, as well as table, figures and statistics are presented within this section. Note that each table or figure is on a separate page, immediately after the page in which it was presented.

DISCUSSION

Within this section the authors may compare and contrast their findings to existing literature, to the expected findings, discuss limitations of the research and recommend follow-up. This is the section in which the authors may speculate or discuss their personal interpretation of the study.

CONCLUSION

The conclusion should present a summary of the purpose of the study, relate the findings to each of the hypotheses, and whether the hypothesis was valid or not, based upon the findings.

REFERENCES

References are arranged according to presentation in text, and numbered accordingly. **Only** references that are cited are listed in this section. Reference style will be discussed in detail under Editorial style. (Sample H)

APPENDICES

Appendices should include Voluntary consent form, any questionnaires given to the subject, or any written material relevant to the study (such as handouts). The purpose of the appendices is to clarify the research.

EDITORIAL STYLE

OVERVIEW

The editorial style is that approved by the APTA, which follows the *American Medical Association Manual of Style*, 9th Ed.1998. A few modifications have been made in margination, etc. to fit the Andrews University Standard for Written Work. In the proposal, the future tense is used, except when discussing background literature. In the intro/review, it is appropriate to use either present tense or past tense, but when discussing results from a study, it is appropriate to use past tense.

HEADINGS AND SUBHEADINGS

Major headings are centered and typed in all capital letters. Second level headings are centered, with upper and lower case. If more subheadings are necessary, then side-headings are used. Regardless of the style it should remain consistent throughout the thesis.

QUOTATIONS

Quotations of no more than four typewritten lines may be used and should be enclosed in quotation marks. To indicate an omission of quoted material, use ellipses. The closing quotation mark should be placed outside commas and periods, but inside colons or semicolons. If a question mark, dash or exclamation mark is part of the original statement, it should be included within the quotation marks. If quote is longer than four lines, it should be set off in a block, with reduced type and the quotation mark eliminated. [Quotes should be used sparingly, to emphasize a point, or if meaning will be lost by rewording the statement.]

ABBREVIATIONS

Abbreviations, acronyms and initials should be used sparingly. The AMA style manual states, "discourage the use of abbreviations, acronyms, and initialisms...Overuse of abbreviations can be confusing and ambiguous for readers..." The AMA Style Manual has lists of approved abbreviations, etc (pgs 276-334) when there is a question regarding the appropriate designation. In contrast with APA and other styles, periods are not used between or following letters in abbreviations, acronyms or initials.

TABLES

Tables should be numbered consecutively using Arabic numerals. Normally, tables present numerical data in a column and row format, without enclosure (not boxed). The proper format is known as a "run-in" style, in which the table number and title start above the upper left margin of the table. The text of the title should not extend beyond the left or right limits of the table. The title should clearly describe the contents of the table. The table should be centered on the page, and each table has a separate page. No vertical lines are allowed, and horizontal lines should be limited. (Sample I)

FIGURES

Figures can be tabular data enclosed in a box format, graphs, pictures, or illustrations. As with tables, each figure is on a separate page. The title is below the figure, aligned with the left edge of the figure, and the figures are numbered consecutively with Arabic numerals. The legend should not extend beyond the edges of the figure, and should clearly describe the contents of the figure. With a complete legend, the figure should be clearly understandable on its own. (Samples J,K)

REFERENCE CITATION IN TEXT

References are numbered consecutively in the order of appearance in the text, and indicated by Arabic superscript numerals. Reference numeral should be placed immediately after author's name, unless author is not cited (eg; Smith et al¹). If author is not cited, then reference numeral should be placed at the end of the sentence. If at the end of a sentence, the numerals should appear outside periods or commas, and inside colons and semicolons. When more than two references are cited, use hyphens to join the first and last of the series, and commas without a space for separate, non-sequential citations.

The reference list should be presented in this consecutive order. Each reference should be listed in the text, and citation may also be made in figures or tables. Citation of authors in text should use the surname only of the primary author; surnames of two authors joined by written and; or if more than two authors, the surname of the first author only followed by "et al", "and associates", "and coworkers", or "and colleagues".

REFERENCE STYLE

References are listed in order of appearance in text, and are listed numerically in the reference list. Each reference is divided by periods into the following groups (listed in order): Author(s), title, edition, imprint (place and name of publisher, date of publication, volume number, issue number, inclusive page numbers), physical description, series statement, and supplementary notes.

Authors.- Use the author's surname followed by initials without punctuation. Include all authors names for works with up to five authors, separating each author by a comma. For articles that have ~~six or more~~ ⁷⁶ authors, list the first three authors followed by "et al". Surnames with prefixes or particles (eg, Van Horn or Smith Jr) should be spelled and capitalized according to the preference of the persons concerned.

Titles.- In titles of articles, books or other material, retain the spelling, abbreviations, and style for numbers used in the original.

Articles and parts of books: In English-language titles, capitalize only the first letter of the first word, proper names, and abbreviations that are ordinarily capitalized (eg, EMG, SLR). do not enclose parts of books in quotation marks. Subtitles should follow this same format, except the subtitle begins with a lowercase letter, and is separated from the title by a colon.

Books, journals, government bulletins, documents and pamphlets: In English-language titles, capitalize the first and last words and each word that is not an article, preposition, or conjunction of less than four letters. Italicize the title.

Foreign-Language Titles.- Foreign-language titles should be written in original language, unless a translated version is available. If translated, a bracketed indication of the original language should follow the title.

References to Journals

A complete journal reference includes (1) authors' names and initials; (2) title of article and subtitle, if any; (3) abbreviated name of journal; (4) year; (5) volume number; (6) part or supplement number, when pertinent, and issue month or number when pagination is not consecutive throughout a volume; and (7) inclusive page numbers.

Abbreviate and italicize names of journals. Use initial capital letters. Abbreviate according to the listing in the current Index Medicus. An abbreviated list of appropriate journal abbreviations is in the AMA Manual of Style, pp 298-303, and may also be accessed through Medline.

Imprint information should start with year followed by a semicolon, the volume number followed by issue information in parentheses, followed by a colon and the inclusive page numbers. There are no spaces between the imprint information.

Examples:

1. Draper V. Electromyographic biofeedback and recovery of quadriceps femoris muscle function following anterior cruciate ligament reconstruction. *Phys Ther.* 1990;70:11-17.
2. Huges RA. Risk summary of the session. *Stroke.* 1990;21(suppl I):182-183.
3. Harrison CL, Schmidt PQ, Jones JD. Aspirin compared with acetaminophen for relief of headache. *Online J Curr Clin Trials* [serial online]. January 2, 1992;doc 1.
4. Braggion C, Cappellitti LM, Cornacchia M, et al. Short-term effects of three chest physiotherapy regimens in patients hospitalized for pulmonary exacerbations of cystic fibrosis: a crossover randomized study. *Pediatr Pulmonol.* 1995;19:16-22.

Abstracts.- Abstracts should be referenced only if the original article is not available, such as from foreign-language journals or from meeting proceedings. (note that these are published abstracts)

Examples:

1. Kremer H, Kellner E, Schierl W, Zollner N. Ultrasonic diagnosis in infiltrative gastrointestinal diseases [in German]. *Dtsch Med Wochenschr.* 1978;103:965-967. Taken from: *JAMA.* 1978;240:2784. English abstract.

2. Paillard M, Resnick N. Natural history of nosocomial urinary incontinence. *Gerontologist*. 1981. 1981;24:212. Abstract.

Material Without Author(s).- References written by a committee or published by and organization may be cited in one of the following manners:

1. Centers for Disease Control. Influenza--worldwide. *MMWR*. 1979;28:51-52.
2. Immunization Practices Advisory Committee. Influenza vaccine--recommendations of the ACIP. *MMWR*. 1979;28:231-238.

References to Books

A complete reference to a book includes (1) authors' surnames and initials; (2) surname and initials of editor or translator, or both, if any; (3) title of book and subtitle, if any; (4) number of editions after the first; (5) place of publication; (6) name of publisher; (7) year of publication; (8) volume number, if there is more than one volume; and (9) page numbers, if specific pages are cited.

Examples:

1. DePalma AF. *Diseases of the Knee*. Philadelphia, PA: Lippincott Co; 1954.
2. Magee DJ. *Orthopedic Physical Assessment*. 2nd ed. Philadelphia, PA: W.B.Saunders Co; 1992:372:447.

Parts of Books.- When a book has several contributors, as well as editors, the title of the part (section or chapter) should have only the first word capitalized, unless proper names, etc., and the inclusive page numbers must be included.

Example:

1. McPoil TG Jr, Brocato RS. The foot and ankle: biomechanical evaluation and treatment. In: Gould JA III, Davies GJ, eds. *Orthopedic and Sports Physical Therapy*. St. Louis, MO: C.V.Mosby Co; 1985:313-341.

Special Materials

Theses and Dissertations.- Titles are given in italics and capitalized as a book. References should include location of the university or institution, its name, and year of completion, such as:

1. Habenicht KC, Kissinger EC. *Electromyographic Analysis of the Quadriceps During Open Versus Closed Chain Activity*. Berrien Springs, MI: Andrews University; 1994. Thesis.

World Wide Web.- Citations from the WEB are acceptable when from reputable sources, such as online journals, government reports , etc. Address and access date should be noted.

1. Health Care Financing Administration. 1996 statistics at a glance. Available at: <http://www.hcfa.gov/stats/stathili.htm>. Accessed December 2, 1996.
2. LaPorte RE, marler E, Akazawa S, Sauer F, et al. The death of biomedical journals. BMJ [serial online]. 1995;310:1387-1390. Available at: <http://www.bmj.com/bmj/archive/6991ed2.htm>. Accessed June 26, 1997.

Unpublished Material.- References to unpublished material may include (1) articles that have been read before a society, but not published and (2) material accepted for publication, but not yet published.

Example:

1. Millar AL, Pape M, Murray T, et al. Shoulder strength in recreational wheelchair athletes. Presented at the Texas Physical Therapy Association Annual Meeting; May 6, 1990; San Antonio, TX.

Unpublished data of any other nature or personal communications should be noted in the text in the following manner:

Similar findings have been noted by J Banks, PhD (unpublished data, 1994).

In a conversation with J Banks, PhD (February 1994)

TYPING INSTRUCTIONS

PAPER

Final copies of project reports and theses must be run on high quality paper - 20# bond with a least 25 percent rag content (dissertation quality paper). To insure longer shelf life, a non-acid paper is recommended.

DUPLICATION

All project reports and theses must be **photomechanically reproduced**, ie, xerox, photo-offset, multilith, letter-quality, or laser printer. Dot matrix printers do not produce a professional, acceptable quality of print and inkjet print will smear. The final copies must be clean, straight, and dark enough to be read and duplicated easily. Arrangements and costs for duplication are your responsibility.

FONT

Fonts should be regular style, traditional fonts such as New York, Times, etc. Do not use unique styles or italic (except for journal title in ref.), as they are difficult to read. Bold should be reserved for headings and subheadings. Text size should be 12 letters to an inch, while 10 to an inch may be used within tables or graphs.

MARGINS

The left-hand margin must be 1 1/2 inches and all other margins must be a full 1 inch. The initial page of a chapter or major section (ie, table of contents, references, etc.) has a 2-inch margin at the top of the page. Only the appendices need only a 1" margin at the top. The left side should be aligned (justified), while the right side should not be aligned (justified). Many photomechanical processes enlarge the type and expand the line. Automatic feeders, printers, and duplicators allow papers to slip so the top margin is larger than necessary and the bottom margin is not adequate. *You are responsible for the final product* - thus you need to run paper through all processes prior to putting it onto final paper. When finished, measure all margins, etc. with a ruler. *Slightly larger margins are permitted, but slightly smaller margins are not!*

PAGE NUMBERS

All pages are numbered at the bottom of the page. Numbers are *centered below the text*, with one blank line (1 double space) between the text and the number. This is about 1/2 to 3/4 inch from the bottom edge of the paper. Whatever system you use, *number placement must be consistent*, so all page numbers appear in the same place on every page. Page numbers do not have any embellishments or periods.

SPACING

General Rules

In general, all text is double spaced. Block quotations are single spaced. Paragraphs are indented .5" (1/2"). Paragraph indentations in block quotations are an additional four spaces, making a total of eight spaces. References are the exception, being single spaced between the lines of a single reference, double spaced between references, and all aligned with the first word of the first line.

Specific Spacing Rules

Triple spaces are used only:

1. between section title and whatever follows

Double spaces are used:

1. between lines of text
2. between lines of a 2-line title
3. between subheads and text that follows
4. between subsequent subheads
5. between reference entries
6. between captions in a list of tables or illustrations
7. between page numbers and text
8. between main division of table of contents and subsections
9. between table or figure number (with legend) and figure or table

Single spaces are used:

1. between lines of a title when it is more than 2 lines in length
2. between lines of a block quotation
3. between lines of an individual reference entry (second line is aligned with

indent)

4. between lines of subsections in the table of contents
5. between lines of a caption in a list of tables or illustrations
6. between some entries in a long table

Spacing of tables and illustrations (figures)

When designed, the overall size of the table, the limitations of the margins, and "eye appeal" should be considered. Double spacing is the general rule, but space and a half or single spacing may be used. Tables and illustrations (figures) should each be on a separate sheet inserted after the page in which they are first mentioned.

Spacing after punctuation

1. One space is used after commas, semicolons, and colons used in the text.
2. One space follows end-sentence punctuation (older formats used two spaces).
3. No spaces appear between hour and minutes in time; volume and pages in references; components of a ratio; before or after hyphens or dashes.

Special pages - Line spacing (Measured from the top of the page)

Abstract

"Abstract"	3 1/8" / 3.125"
First line of title	4"
"by"	5 5/8" / 5.625"
Chair	6 7/8" / 6.875"

Title page

"Andrews University"	2.5"
First line of title	4.17"
"A capstone project"	5.8"
"by"	8.17"

Approval page

One line title	2.3"
Two line or more title	2.0"
"A capstone project"	3.6"
"by"	5.17"

"APPROVAL..."

6.67"

Number of copies

You must submit three complete copies with original signatures (in black ink). Any copies you desire to keep will be in addition to these three copies. The "Best" copy (usually the original one which is laser printed) should be unpunched and in a manila envelope. The other two copies should have holes punched and be turned in in a Black **Accopress** (this is the brand name) folder or folder of similar quality

(Sample A: Abstract Title page)

(3.125")

ABSTRACT

(4") THE EFFECT OF STRUCTURED NEUROSCIENCE HOMEWORK ON
ACADEMIC PERFORMANCE OF PHYSICAL THERAPY STUDENTS

(5.625")

by

Lindy M. Page
Shauna L. Turner

Chair: John C. Banks

(6.875")

(Sample C: Title Page)

(2.5")

Andrews University

College of Arts and Sciences
(Department of Physical Therapy)

(4.17") THE EFFECT OF STRUCTURED NEUROSCIENCE HOMEWORK ON
ACADEMIC PERFORMANCE OF PHYSICAL THERAPY STUDENTS

(5.8")

A Capstone Project

Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Physical Therapy

(8.17")

by

Lindy M. Page
Shauna L. Turner

August 2005

(Sample B: Abstract)

ABSTRACT

PURPOSE: The purpose of this study was to determine the effect of structured homework on learning as indicated by final neuroscience course percentages.

METHODS: Andrews University physical therapy students enrolled in a neuroscience course participated in this study (n=18). Students completed an optional homework assignment (of no impact on course grade) on a weekly basis for the duration of the course (15 weeks). A variety of homework formats were used: short answer, problem solving, multiple-choice, etc. At the conclusion of the course, the students' final course percentages were compared to a control group (n=14) who completed no homework.

Overall entrance GPA, entrance science GPA, and final gross anatomy course percentages were also collected for comparison. **RESULTS:** No significant difference was found between classes for overall entrance GPA, science GPA, or gross anatomy final percentages. No significant difference was found between the control group and experimental group for final neuroscience course percentages. An adjustment demonstrated a trend ($p=.076$) for the correlation between gross anatomy final course percentage and neuroscience final course percentage, but no significant difference was found. **CONCLUSION:** The results showed that homework in addition to lecture did not produce a significant improvement in final neuroscience percentages in comparison to the control group.

(Sample D: Approval Sheet)

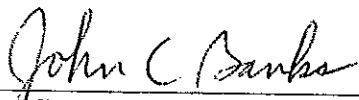
(2") THE EFFECT OF STRUCTURED NEUROSCIENCE HOMEWORK ON
ACADEMIC PERFORMANCE OF PHYSICAL THERAPY STUDENTS

(3.6") A Capstone Project
Presented in Partial Fulfillment
Of the Requirements for the Degree
Doctor of Physical Therapy

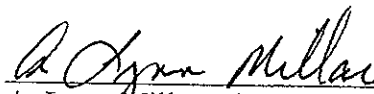
(5.17") by
Lindy M. Page
Shauna L. Turner

APPROVAL BY THE COMMITTEE:

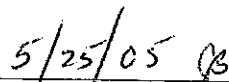
(6.67")



John C. Banks, PhD



A. Lynn Millar, PhD, PT



Date Approved

[Sample E: Table of Contents]

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REFERENCES

1. Helewa A, Goldsmith C, Smythe H, Gibson E. An evaluation of four different measures of abdominal muscle strength: patient, order and instrument variation. *J Rheumatol*. 1990;7:965-9.
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(Sample I: Table for results section)

Table 2. Descriptive data for 5000 K race times by gender and grade.

	Mean (mins:sec)	Standard Deviation	Minimum	Maximum
Females				
9 th (n=40)	18:13.18	28.14	17:11.80	19:25.80
10 th (n=103)	18:14.35	34.99	16:41.90	19:39.00
11 th (n=194)	18:18.22	43.59	16:43.80	20:50.20
12 th (n=334)	18:14.84	43.92	15:24.00	22:05.50
Males				
9 th (n=2)	15:32.00	8.77	15:25.80	15:38.20
10 th (n=27)	15:53.69	28.81	15:12.80	16:47.20
11 th (n=146)	15:40.22	24.48	14:03.10	16:54.60
12 th (n=497)	15:40.22	33.83	14:03.10	18:17.20

(Sample J: Figure for results section)

Peak Torques		Experimental	Control
60°/sec	Initial	100.04 ± 17.62	91.94 ± 8.82
	Final	102.70 ± 15.49	98.68 ± 12.20
180°/sec	Initial	88.25 ± 15.14	79.50 ± 9.08
	Final	90.87 ± 12.58	85.13 ± 14.25
240°/sec	Initial	72.73 ± 13.65	65.39 ± 9.73
	Final	74.45 ± 12.64	73.00 ± 16.06

Figure 4. Initial and Final Hamstring Peak Torque values for control and experimental groups at 60°, 180°, and 240°/sec.

(Sample K: Figure for results section)

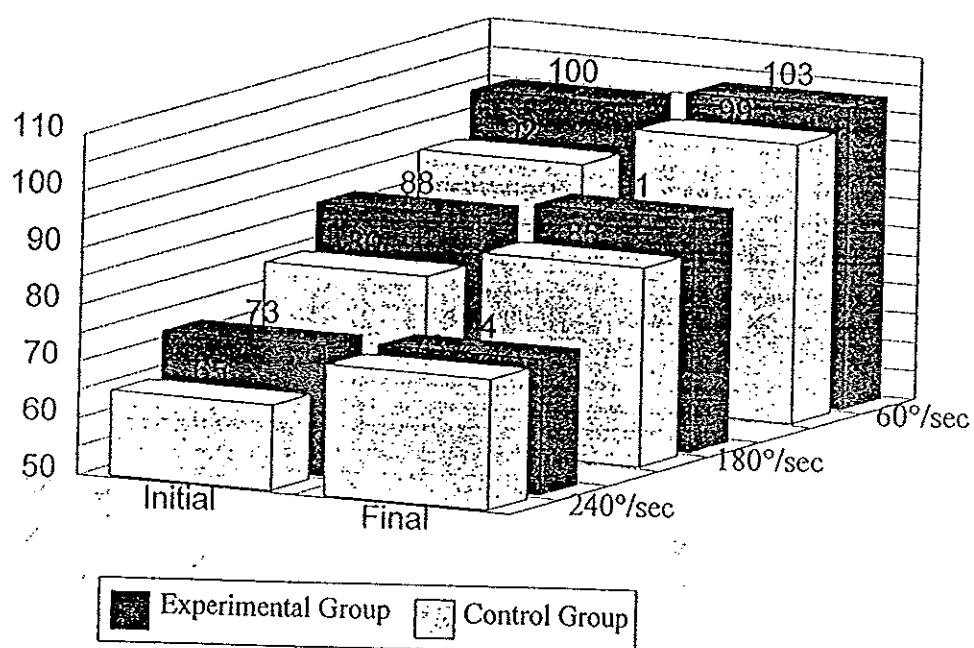


Figure 5. Graph of Initial and Final Peak torque values at 60, 180, 240°/sec.