CRITICAL INQUIRY II (RS302)
Dept. of Rehabilitation Sciences
Hong Kong Polytechnic University

TODAY’S OUTLINE
CI2 Syllabus
Introduction to the CI2 e-learning web site
Introduction to SPSS

DR. RHONDA SCUDDS (Subject Leader)
*Office: ST508
Telephone: 2766 4890
*rsrhonda@inet.polyu.edu.hk

DR. RHONDA SCUDDS
OFFICE HOURS:
By appointment or
Stop by my office

OTHER STAFF INVOLVED
Dr. Eria Li*
1 Lecture
Qualitative Data Analysis

OVERALL AIM OF CI
TO BE CRITICAL CONSUMERS OF PROFESSIONAL AND SCIENTIFIC LITERATURE & TO BE ABLE TO COLLABORATE IN INVESTIGATIVE PROJECTS

*Contact Dr. Li for QUALITATIVE analysis questions ONLY
CI2 OBJECTIVES

To select proper methods of data coding, recording and preparation in planning a study

CI2 OBJECTIVES

To describe key concepts of probability and distributions and their importance in statistical analysis

CI2 OBJECTIVES

To describe the purposes and application of data analysis and statistical methods

CI2 OBJECTIVES

To select appropriate data analysis and statistical methods for a given investigative design

CI2 OBJECTIVES

To select appropriate methods in the presentation of statistical analysis

CI2 OBJECTIVES

To use the Statistical Package for the Social Sciences (SPSS) to conduct data analysis
**CI2 OBJECTIVES**

To interpret results obtained from the analysis of a given set of data

**CI2 OBJECTIVES**

Describe the purposes and application of data analysis and statistical methods

**REQUIRED READINGS**

Portney LG, Watkins MP
Foundations of Clinical Research. Applications to Practice, 2nd Ed.
Prentice Hall Health, Upper Saddle River, NJ

Same text as last semester

**REQUIRED READINGS**

![Book Image]

**INTRODUCTION**

www.rs.polyu.edu.hk/e-learning/ci/index.asp

All Lecture Material
All Lab Material
Other Resources

**INTRODUCTION**

CI2 e-learning site
Discussion Board
Announcements
Syllabus
Assessment
INTRODUCTION

12 LECTURES (Self-study)

7 LABORATORIES (Self-study)

Labs

SPSS analysis exercises in each lab

Self-paced

Exercises and step-by-step instructions for SPSS included on web site

Labs

Must use computers that have SPSS software (English Windows)

GH013
University computer labs

No scheduled lab periods: complete them on your own time

LABS

Application of concepts covered in the lectures

Example(s) are given in the lectures

Learn basic skills & interpretation to help with CI3 project and future research

PROBLEMS??

🌟 POST QUESTION ON THE 🌟
DISCUSSION BOARD ON WEB SITE

CONTACT ME

If there are common problems, I will post information/explanations on the discussion board or in the resources section of the web site

RESERVED ROOMS

GH013
EVERY MONDAY
10:30am-12:30pm

Reserved for CI2 students only (if you want to use it)
RESERVED ROOMS

ST111
EVERY MONDAY
10:30am-12:30pm

ONLY if needed to call the class together for face-to-face sessions (if deemed necessary)
Will give 1 week’s notice

ASSESSMENT

<table>
<thead>
<tr>
<th>FORMAT</th>
<th>% of FINAL GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quiz #1 MCQ ± True/False</td>
<td>40%</td>
</tr>
<tr>
<td>Small group assignment</td>
<td></td>
</tr>
<tr>
<td>Analysis and short written report</td>
<td>20%</td>
</tr>
<tr>
<td>Quiz #2 MCQ ± True/False</td>
<td>40%</td>
</tr>
</tbody>
</table>

QUIZ DATES

Quiz #1
MONDAY
08 March 2004
10:30am-12:00pm
(worth 40%)

Quiz #2
MONDAY
26 April 2004
10:30am-12:00pm
(worth 40%)

Small Group Assignment (20%)

Each group will receive a data set
You will be asked to answer several research questions using the data set
- State hypotheses
- Choose appropriate statistic
- Perform analyses
- Report results
- Interpret results

3 students per group

Due:
23 April 2004
5pm, ST508

Small Group Assignment

You make up your own groups by:
Friday 13 Feb 2004

I will put you in groups if you do not inform me by the above deadline
Small Group Assignment - Inform me by deadline
One person from each group must email me the following:
Full names of all 3 group members
PolyU ID #’s of all 3 group members
Identify which group member will be the contact person
Only use your PolyU email to send me an email

CI2 GRADING GUIDELINES

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>10-20%</td>
<td>Excellent</td>
</tr>
<tr>
<td>A</td>
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<td>B+</td>
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<tr>
<td>C+</td>
<td>25-40%</td>
<td>Satisfactory</td>
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<tr>
<td>C</td>
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<td></td>
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<tr>
<td>D+</td>
<td>10-20%</td>
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<tr>
<td>D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>0-10%</td>
<td>Failure</td>
</tr>
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</table>

Department of RS Policy on Cheating and Plagiarism

FIRST OFFENSE
Failed grade on assessment component or subject
Note placed in student file

SECOND OFFENSE
Case referred to Student Discipline Committee
Suspension/Expulsion is possible

DATA COLLECTION
ID Research Problem
- Interpret & Report
- Analyze
- Collect
- Design
- Lit Rev
- ID Variables
- Hypotheses
INTRODUCTION TO THE E-LEARNING WEB SITE

TASK #1
Change your password

www.rs.polyu.edu.hk/e-learning
Login: PolyU ID (eg. 02345678d)
Password: changeme

Change your password

www.rs.polyu.edu.hk/e-learning
- Login
- Edit Personal Information
- Type in new password carefully
- Remember new password

TASK #2
Login to CI2 site

www.rs.polyu.edu.hk/e-learning/ci/index.asp
- Login with username and new password

Introduction to SPSS

Combination of:
Spreadsheet
Statistical Analysis software

SPSS
Run under
English
Windows
**DATA SET**

- All of the data obtained from all of the subjects in a study
- Data collected on the 2nd last day of C11
- Use data from this questionnaire
- Used to test hypotheses in the labs

**DATA ANALYSIS**

- Descriptive Statistics (all study designs)
- Inferential Statistics (exploratory & experimental)

**DATA ENTRY**

Into a database (spreadsheet)
SPSS version 11
Create data file
  * determine variable names and values
  * determine level of data
  * determine variable and values labels

Each question is a variable

- Each variable needs a variable name (maximum of 8 characters)
Each variable has values

- Q1. Which programme are you in?
  - Physiotherapy = 1
  - Occupational Therapy = 2

- Q2. Which part of the class are you sitting in?
  - Front = 1
  - Middle = 2
  - Back = 3

- Q3. Your gender?
  - Male = 1
  - Female = 2

Values for height & weight are actual numbers

SPSS prefers values to be numbers

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DATABASE/DATA FILE

<table>
<thead>
<tr>
<th>Variables</th>
<th>Values (a number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable names</td>
<td>Value labels</td>
</tr>
<tr>
<td>(max 8 characters)</td>
<td>(&gt;8 characters)</td>
</tr>
</tbody>
</table>

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<tr>
<td>(8 characters)</td>
<td>(&gt;8 characters)</td>
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</table>

A longer description of the variable

Variable name: sitlocat

Variable label: the part of the class where the subject was sitting

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A longer description of what each value (number) stands for (categorical variables ONLY)

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MISSING DATA

Sometimes you have incomplete data

Some data may be missing for some variables

Try to avoid
MISSING DATA/VALUES

What value do you enter in the data file?

You can specify a number to represent a missing value

9 or 99 or 999
(depending on actual values that are possible)

Or you can leave a blank space
where values are missing

Variable View

Data View

Variable View

Data View

Variable View
Any questions??

- Play around with SPSS
- OK to make mistakes while learning
- save work frequently

Any questions??

I will be here all semester

Enjoy the new format of learning statistics!!!