

Quia

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY
SAULT STE MARIE, ON



COURSE OUTLINE

Course Title: Research Techniques
Code No.: GER216 Semester: 3
Program: Community Gerontology
Author: Nancy McClelland
Date: Sept. 1998 Previous Outline Date: Sept/95

Approved: *Donna Tremblay* *Aug 27/98*
Dean Date

Total Credits: 3 Prerequisite(s): N/A
Length of Course: 15 Weeks Total Credit Hours: 45

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For additional information, please contact Donna Tremblay, Dean, School of Health Sciences, Human
Sciences and Teacher Education, (705) 759-2554, Ext. 690.

I. PHILOSOPHY/GOALS:

This course is designed to acquaint students with the elements of research and development in program planning. Topics for discussion include research methodology, designing surveys, and managing and interpreting data/results.

II. LEARNING OUTCOMES:

1. Identify the concepts basic to survey research and program proposal development.
2. Examine the process of conceptualizing a program and identifying the need based on the input of researched documentation, observing similar programs and dialoguing with the community.
3. Utilize questionnaire design techniques in developing a needs survey questionnaire.
4. Examine variables which contribute to the successful administration of questionnaires.
5. Demonstrate an ability to summarize and analyze survey results for effective support to plan and implement an effective program.
6. Identify the scope of program planning needed in the field of gerontology.
7. Demonstrate an ability to examine needs analysis results, proposals and program data and present it in an organized format for agency and/or government purposes.

III. TOPICS:

1. Research
 - basic concepts
 - What is research?
 - The Scientific Method
 - procedures
 - design
 - quantitative
 - qualitative
2. The Research Question
 - literature review E.R.I.C.
 - forming a hypothesis
 - independent/dependent variables
3. Sampling
4. Research Methods
5. Design Techniques - validity, reliability

III. TOPICS:

6. Analyzing Data - Summarizing Results
7. Significance of Tests/Statistics
8. Evaluating Research Articles
9. Identification of Successful Ways to Administer Surveys
10. Ethics of Research in Gerontology
11. Presentation of needs analysis and proposed program proposal for older adults in your area.

IV. LEARNING ACTIVITIES:**A. Research**

1. Define research, basic terms and concepts
 - dimensions, scope and method
2. List reasons to do research in the field of aging.
3. Explain the procedures of the Scientific Method.
 - specifying goals
 - reviewing the literature
 - formulating and testing hypotheses
 - measuring and recording
 - analyzing the data
 - inviting
4. Examine research contributions in gerontological periodicals for example of the scientific method.
5. Identify the parts/stages of Research design.
 - the research question
 - choosing the sample
 - methods of data collection
 - analysis and presentation of data
 - form of publication
6. Describe the differences between Quantitative and Qualitative Research.
 - main characteristics
 - methods
 - advantages and disadvantages
7. How are studies in Gerontology done - qualitatively or quantitatively?

IV. LEARNING ACTIVITIES:**B. The Research Question**

1. Discuss the ways to ask a question in research.
2. Identify how to do a thorough review of the literature E.R.I.C.
3. Define and describe the term "framing a hypothesis".
4. Give examples of a research hypothesis.
5. List one hypothesis in gerontological research.
6. Identify dependent, independent and control variables.

C. Sampling

1. Identify techniques of Sampling.
 - a) random
 - b) non random sampling
2. Explain the terms used to describe number of samples.
 - a) cross-sectional research
 - b) longitudinal research
3. Discuss the significance of these sampling techniques

IV. LEARNING**D. Research Methods**

1. Explain why the method of data collection in research studies is important and needs serious consideration.
2. Describe observational research and how it is done.
3. Discuss interviewing methods as a means of data collection.
 - how people feel about interviews
 - the notice of structure of the interview
 - encouraging or probing
 - types of questions
4. Review survey research and compare with interviewing.
 - examine types of questions
 - how to prepare the questionnaire
 - modes of administering the survey
5. Define what is meant by Experimental Research.

IV. LEARNING ACTIVITIES:**D. Research Methods**

6. Review examples of experimental research done in our century, in particular to humans.
7. Discuss the ethics of experimental research methods.
8. Identify alternative methods of research.
 - a) explain archival data
 - b) describe case study data collection

E. Experimental Design

1. Discuss the problem in achieving validity and reliability in experimental research.
2. Identify what the term quasi-experiment means.
3. Describe quasi-experimental procedures.
4. Examine how you feel about these research methods (those you would assist with in the field of aging for contributions to Gerontology)

F. Analyzing Data

1. Identify goals for analyzing data collected.
 - a) scrutinizing
 - b) summarizing
 - c) clarifying
2. Describe techniques used to analyze research data.
 - a) assessment and categorizing
 - b) presenting the data
 - c) composite measures
 - d) the use of the computer
 - specific computer software packages used
3. Examine a gerontological research article and discuss techniques used to analyze data.

G. Significance of Tests

1. Describe the concept of Descriptive Statistics.
 - a) measures of central tendency
 - b) measures of dispersion
2. Explain the term "Inferential Statistics".
 - testing for significance
3. Define the notion of probability and the logic to be followed in testing a hypothesis.

IV. LEARNING ACTIVITIES:**H. Evaluating Research Articles**

1. Review the chapter which summarizes the elements of research.
2. Identify what is involved in reporting research results.
3. Review research contributions in Gerontology and evaluate finds and recommendations.
4. Demonstrate an ability to critique gerontological research

I. Ethics in Gerontological Research

1. Examine ethical considerations of research.
2. Identify what an ethical issue is and know when to discuss ethical issues with a client.
3. Demonstrate awareness of personal attitudes towards the ethical considerations discussed in class.
4. Identify when ethical issues/ethical research have policy implications.
5. Assess when ethical research should be presented to governing bodies.
6. Demonstrate skill/ability in presenting the issue effectively and professionally.
7. Value and appreciate the older adult's opinions regarding ethical research.

J. Program Proposal

1. Develop and test re: hypothesis for the potential needs of older adults in the area.

**V. EVALUATION PROCESS/GRADING SYSTEM:
(INCLUDES ASSIGNMENTS, ATTENDANCE REQUIREMENTS, ETC.)**

A combination of tests and assignments will be used to evaluate student achievement of the course objectives. A description of the evaluation methods will be provided and discussed by the teacher within the first two weeks of class.

VI. REQUIRED RESOURCES/TEXTS/MATERIALS:

Find Out - Conducting and Evaluating Social Research by Jane Audrey Trice, 2nd edition, Nelson Canada

Additional Resource Materials Available In The College Library:

Book Section (TITLE, PUBLISHER, EDITION, DATE, LIBRARY CALL NUMBER IF APPLICABLE - SEE ATTACHED EXAMPLE)

Periodical Section (MAGAZINES, ARTICLES)

Audiovisual Section (FILMS, FILMSTRIPS, TRANSPARENCIES)

VII. SPECIAL NOTES:Special Needs

If you are a student with special needs (eg. physical limitations, visual impairments, hearing impairments, learning disabilities), you are encouraged to discuss required accommodations with the instructor and/or contact the Special Needs Office, Room E1204, Ext. 493, 717, 491 so that support services can be arranged for you.

Retention of Course Outlines

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other post-secondary institutions.

Course Modification

The instructor reserves the right to modify the course as deemed necessary to meet the needs of students.

VIII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the instructor