

Spring 2011

CE 620 Syllabus: Tests, Measurement and Research Design

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Winona State University
Department of Counseling Education
CE 620: Tests, Measurement and Research Design
Spring 2011

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Course Location: Minne' Hall, Room 104

Time: Wednesdays 5-8PM

Course Description: This course provides an overview of the fundamentals of measurement as applied to psychological testing, research design, and program evaluation. Knowledge of and practical experience in the use of standardized psychological tests in counseling for personality assessment, evaluation, and career and life decisions will be provided. Current methods of research design and program evaluation in counseling practice and school settings will be discussed. *Prerequisite: a basic statistics course (undergraduate or graduate) and CE 601 Foundations of Counseling - 3 S.H. Grade only.*

The course is taught through a combination of teaching methods, including, but not limited to: class lectures, guest speakers, small and large group discussions, experiential class activities, videos and simulations.

Required Texts:

Hood, A. B. and Johnson, R.W. (2007). *Assessment in Counseling: A Guide to the Use of Psychological Assessment Procedures, 4th edition.* American Counseling Association.

McLeod, J. (2007). *Doing Counselling Research.* Los Angeles, CA: Sage Publications.

Other Readings

** Desire to Learn (D2L) readings can be found at <https://winona.ims.mnscu.edu/> and are required. You can access D2L with your Warrior ID and password.

Course Objectives:

The course objectives encompass two areas of critical importance to the practice of professional counseling: (1) measurement & assessment, and (2) research design & program evaluation. The following specific objectives for this course are the 2009 CACREP standards for these areas:

Research Design and Program Evaluation:

Students will:

- a. articulate the importance of research in advancing the counseling profession;
- b. differentiate research methods such as qualitative, quantitative, single-case design, action research, and outcome-based research;
- c. apply statistical methods used in conducting research and program evaluation;
- d. demonstrate principles, models, and applications of needs assessment and program evaluation, and use findings to effect program modifications;
- e. use research to inform evidence-based practice; and
- f. practice ethical and culturally relevant strategies for interpreting and reporting the results of research and/or program evaluation studies.

Measurement & Assessment:

Students will:

- a. discuss historical perspectives concerning the nature and meaning of assessment;
- b. define basic concepts of standardized and non-standardized testing and other assessment techniques, including norm-referenced and criterion-referenced assessment, environmental assessment, performance assessment, individual and group test and inventory methods, psychological testing, and behavioral observations;
- c. calculate statistical concepts, including scales of measurement, measures of central tendency, indices of variability, shapes and types of distributions, and correlations;
- d. determine reliability (i.e., theory of measurement error, models of reliability, and the use of reliability information) of an assessment measure;
- e. determine validity (i.e., evidence of validity, types of validity, and the relationship between reliability and validity);
- f. social and cultural factors related to the assessment and evaluation of individuals, groups, and specific populations; and
- g. ethical strategies for selecting, administering, and interpreting assessment and evaluation instruments and techniques in counseling.

Course Requirements:

1. Attendance, Participation and Reading Reactions

Students are *required to attend all class sessions*. If you need to miss a class because of an emergency, you are expected to contact the instructor before the missed class. You should be an *active member* of this class, and it is expected that you will be an *engaged learner*, bringing energy and enthusiasm to every class. To be an engaged learner, one must be active before class by reading assignments and learning key concepts well enough to be able to discuss them in class, and to be able to ask questions about concepts you did not understand in your reading.

To demonstrate your understanding of the reading, you will also be required to complete three reading reactions over the Hood and Johnson text. A question or questions about the readings will be posted the week before the Reading Reaction is due. It is your responsibility to reply to the question thoroughly in 1-2 paragraphs, using knowledge acquired from the text and classroom discussions. Discussions will be graded in demonstration of learned material, **not** anecdotal

thoughts about the reading.

2. Psychological Assessment Administration and Report

For this assignment, you will conduct an initial interview, mental status exam, and practice administering three assessments: the Kuder Career Search with Person Match, the Myers-Briggs Type Indicator (MBTI), and the Quality of Life Inventory (QOLI). The combination of these three assessments allow you to assess a person's values, interests and personality which may be used in counseling individuals in comprehensive ways as they often relate to interpersonal issues and intrapersonal conflict at work, home and in school.

For this assignment you will choose a participant, obtain informed consent (**see D2L**), conduct an initial interview, mental status exam, and administer the three assessments to your participant. You will then score the MBTI assessment, and write a psychological report detailing the results of it, as well as the Kuder and QOLI assessments. A sample report that you can use as a template for your written report is included on D2L. Remember that this is a practice exercise, and that the results are not conclusive. Finally you will state your general clinical impressions, including diagnostic impressions and recommendations.

3. Buros Mental Measurements Yearbook Assignment

For this assignment you will compare and contrast the quality of two assessments, to be able to have a rationale for choosing one, which you will plan to use in your final project. You will begin by visiting the following website <http://buros.unl.edu/buros/jsp/search.jsp> which will allow you to search titles of a multitude of assessments that have been professionally reviewed. Once you find the title you would like to evaluate, note the volume of the *Buros Mental Measurements Yearbook* that contains the assessment. You will then visit the library and locate volume of the *Buros Mental Measurements Yearbook* that contains your chosen assessment. This book will give you extensive reviews of a comprehensive variety of assessments. You will read about two related to your research project, and then you will choose one assessment that you feel is most relevant to your chosen research area. Write a brief report (1-2 pages single spaced **per** assessment) detailing the assessment, for example reliability and validity measures, norming sample, multicultural considerations, ease of administration, and cost. Then, explain why the assessment you chose is more appropriate than the other similar assessment tools. ***You must also locate journal articles about the assessments in order to gather more information.*** These are all important things to consider when planning to use an assessment measure in research. An example of the format you should use in your summary is included in **Appendix A**.

**** Note: It is possible that you won't find the perfect assessment for your project in the *Buros MMY*. If this happens, choose an assessment that is close in order to complete this assignment, then search elsewhere for the assessment you will use for your project. Keep in mind that when using an assessment that is not reviewed by *Buros*, you must be able to locate some information about reliability

4.a. Preliminary Reference List

For this assignment, students will conduct a literature review on a topic of their choosing, and create a preliminary reference list, which will lead to the final research project. Students must provide a minimum of 10 references, formatted to APA 6th edition.

4.b. Development of a Research Question, Hypothesis and Rationale

After researching a particular topic, students will develop a 2-page paper identifying the research question/problem and hypothesis and an explanation of the rationale for the study. Time will be spent in class discussing the components of a research question and hypothesis. Students should refer to the literature in their area of interest to assist in development of the research question, hypothesis and rationale. The question comes from professional interest, and is developed by exploring what research has been done in the area. A hypothesis can then be proposed from the research previously done in your chosen area.

4.c. Submission of Methods and Results Sections of Proposal

For this assignment, you will build on your literature review and develop your project. Who will your participants be? How will they be selected? What are the exclusion criteria? What will be the design of your study? How will you control for threats to internal and external validity? How will you conduct your study? Finally, how will you analyze your results? You will use basic statistical methods discussed in class to measure your outcomes. Please feel free to consult with me if you have questions about this section. Please refer to the following website for valuable and understandable statistical and methodological help:

http://web.me.com/rsbalkin/Site/Research_Methods_and_Statistics.html

4. d. Final Research Proposal

Your final project is intended to serve as a synthesis of what you have been learning all semester. You will propose a hypothetical research study intended to answer your research question. You will establish variables to measure, select at least one assessment to use, and outline how your project will be executed. Be sure to consider threats to reliability and validity, as well as what controls you might implement to manage these. You will describe how your research will be conducted, and propose the results you expect to find, how you will measure your results (basic statistics), and conclude with a discussion of what your hypothetical findings might mean, what could go wrong, etc.

Your paper should be no longer than 12 pages (not including title and reference pages), double spaced, using APA format (*APA manual, 6th edition*) . You must include at least 8-10 references. You may find it difficult to stay within the page limit, but it is great practice to work on “cleaning” up your writing so that you are concise and to-the-point, while still using your best writing skills. Your APA manual should be able to help with the process of writing in this manner. A general outline is displayed below.

Note: There is a great example on pages 41-51 of your APA 6th edition of a manuscript. Your paper should look very similar to this, with the exception that yours is a hypothetical experiment. Even though this is a hypothetical experiment, write as if the study has been conducted.

Introduction and Literature Review

- ⇒ States the problem the paper will address
- ⇒ Cites earlier work on the problem (review of literature)
- ⇒ States what the study will contribute to understanding the problem
- ⇒ States the hypothesis of the study
- Method
 - ⇒ General
 - Another person could replicate your study based only on a reading of your method section
 - A reader could evaluate your study well enough to tell whether your conclusions will be valid
 - Covers the following: participants, measures, design, and procedure
 - ⇒ Participants
 - Describes who will be the participants and their characteristics
 - Tells how the participants will be selected
 - States what incentives were offered for participation
 - ⇒ Materials
 - Lists equipment, computer programs, questionnaires, or assessments to be used
 - If apparatus is specialized, refers to articles that describe it
 - Describes custom equipment, programs, training protocol
- Design & Procedure
 - ⇒ may include the following as this subsection appears only in an experiment, not in a survey, observational study:
 - Describes the logic of the experiment
 - Lists variables and levels of independent variables
 - Describes steps to be used in carrying out design (Procedure subsection may be incorporated into design).
 - Lists methods of control, such as randomization or counterbalancing.
 - Summarizes or reproduces verbatim any specialized instruction to participants
- Results:
 - What do you expect to find and how will you go about finding it?
- Discussion
 - How can your findings be used?
 - What are the limitations to your findings?
 - What will your findings contribute to future research?
- References
 - Cite all of your in-text references fully in this section in APA format.

Grades

All assignments/tests are graded on a percentage system, with a perfect score being 100%. Then, each assignment is weighted to determine your Final grade. The percentage system is below:

Percentage System

A = 100-90%

B = 89-80%

C = 79% -70%

D = 69% or below

Final Grades are based on the following weighted percentages:

1. Attendance, Participation and Reading Reactions	10%
2. Psychological Assessment Administration and Report	25%
3. Buros Mental Measurements Yearbook Assignment	20%
4.a. Preliminary Reference List	10%
4.b. Development of a Research Question, Hypothesis and Rationale	10%
4.c. Submission of Methods and Results Sections of Proposal	10%
4.d. Final Research Proposal	15%

COMMITMENT TO INCLUSIVE EXCELLENCE: WSU recognizes that our individual differences can deepen our understanding of one another and the world around us, rather than divide us. In this class, people of all ethnicities, genders, religions, ages, sexual orientations, disabilities, socioeconomic backgrounds, regions, and nationalities are strongly encouraged to share their rich array of perspectives and experiences. If you feel your differences may in some way isolate you from WSU's community or if you have a need of any specific accommodations, please speak with the instructor early in the semester about your concerns and what we can do together to help you become an active and engaged member of our class and community.

ACCOMMODATIONS: If you have a disability, which may require some modification of seating, testing or other course requirements, please feel free to discuss your needs with me so that appropriate arrangements may be made. Please see me after class or during my office hours. If you have questions about your rights as a student or would like support with accommodating your disability, Student Disability Services may be helpful. They can be contacted at: <http://www.winona.edu/disabilityservices/>

ELECTRONIC DEVICE NOTICE: As a matter of courtesy to your classmates and the instructor, please turn off your beepers, cell phones, and any other electronic devices that make any noise. Excluding students with a documented disability, the use of laptops and PDAs in class is prohibited without prior permission of the instructor.

E-MAIL POLICY: Please note: I will use the university e-mail account provided by Winona State to communicate important information, any course schedule changes, and class cancellations, etc. Students should make every effort to establish and utilize their account and check it regularly.

STUDENT GRIEVANCES: Procedures for filing student complaints are explained in Student Handbook. Student complaint procedures are available online at: <http://www.winona.edu/sld/studentpolicy.asp>

PLAGIARISM AND CHEATING: The collegiate policy on plagiarism and cheating is outlined in the Student Handbook. It is your responsibility to be aware of this policy. You can also find it online at: http://www.winona.edu/sld/studentpolicy.asp#ACADEMIC_INTEGRITY_POLICY

RESPECT FOR DIVERSITY: It is the intent of the instructor to present material and activities that are respectful of diversity: gender, sexuality, disability, age, socio-economic status, ethnicity (race, nation, or culture), race (physical characteristics transmitted by genes; body of people united by common history or

nationality), and culture (beliefs, customs, arts, and institutions of a society). Any suggestions you have are welcomed. Support for issues of diversity can also be found: <http://www.winona.edu/culturaldiversity/>

SEXUALLY EXPLICIT MATERIAL POLICY: As a part of your course experience, we may discuss work with clients who have concerns about their sexuality or developmental issues regarding sexual orientation. Consistent with the professional ethical codes, you are expected to consider appropriate related interventions/support services and engage in class discussions in a professional manner regarding these matters. If there are sexually related issues you feel that you could not discuss as a future counselor for personal reasons, you need to make those issues known to your instructor and/or advisor.

COMPLETION OF ALL ASSIGNED READINGS IS ESSENTIAL:

References related to learning at the graduate level are available through the Center for Teaching at the University.

Please see me if you have any questions about the course.