

PSY 606: TESTS AND MEASUREMENT—ONLINE VERSION

Class Meeting: Online

Instructor: Joseph R. Mobley, Jr., Ph.D.

Office/Phone: (UH Manoa/cell: 808-295-9554)

E-mail: jmobley@hawaii.edu

Text: Friedenberg, L. (1995). *Psychological testing: Design, analysis and use*. New York: Allyn & Bacon (Note: this text is out of print, but is a lucid description of the basics of classic measurement theory; chapters will be provided by instructor; see also supplemental reading list, page 7, for specific topics).

Course Description

This course analyzes various kinds and uses of tests, gives a history and background of tests and their strengths and weaknesses, and develops the student's understanding of the quantitative measurement foundations of tests. Evaluation, selection, and interpretation of psychological tests for guidance and the use of psychometric data in counseling. As part of the course requirement, students will administer, score and interpret tests. *Note: It is imperative that students keep all syllabi from all courses taken while in the MSCP program to facilitate the application process for licensing, certification, doctorate school application, etc.*

Online Course Requirements

This course will be conducted entirely online, with the majority of content delivered asynchronously (i.e., without required meetings via narrated presentations and online quizzes). There will be occasional class meetings conducted via Zoom meeting software (links to be provided) which will be recorded for the benefit of students who cannot attend at those designated times. These will primarily occur in the beginning of the term so that questions can be addressed. Otherwise, questions can be submitted to the instructor via email. Scheduled Zoom meetings are noted on the course calendar; additional ones may be scheduled on an ad hoc basis.

Technical requirements include access to a computer (laptop, desktop or comparable device) with audio capabilities (e.g., speakers, ear buds, headphones) as well as the internet. Software requirements include access to Powerpoint, and MS Word and web browser (e.g., Safari, Firefox, or Google Chrome).

Course content will be sent each week via linked email messages; additionally presentations and scales can be accessed via Dropbox.com. Specific instructions will be provided each week.

Linking Statement

This course develops and assesses the skills and competencies for the MSCP program core student learning outcome of human growth and development. In addition, this course also addresses the MSCP core program student learning outcomes of: 1) professional issues and ethics, 2) research and evaluation and 3) social and cultural foundations.

Student Learning Outcomes

Students will demonstrate an understanding of:

1. The scientific method and empirical process as related to psychometrics and social science research.

2. Ethical guidelines as they pertain to testing and counseling.
3. The application of these concepts in the form of a case study and initial history report.
4. Basic issues surrounding cultural diversity and testing.
5. Testing and measurement in the contexts of school, community and marriage and family counseling.
6. Collecting, analyzing, interpreting, and presenting data obtained through the process of test administration and analysis.
7. Reliability, validity, and standard error of measurement.
8. Test construction and item analysis.

Assessment

- 1) Exams--there will be three take-home exams, including a final, each covering one unit of the course material. Each exam will contribute 50 pts towards the course total.
- 2) Weekly quizzes--quizzes will be made available each week to be taken following the viewing of presentations/assigned readings for that week. They will be due on Friday of each week by midnight.
- 3) Psychometric Case Report--the student will select an acquaintance who agrees to participate in this psychometric evaluation exercise. It is imperative that the participant understand that this is a classroom exercise and not a formal evaluation. The student will then interview that person and administer two required tests (Myers-Briggs; Big Five Inventory) and a minimum of three typical performance tests (based on relevance to the case). The interview and test results will then be summarized in an evaluation report. A sample evaluation will be made available as a handout for use as a model format. This report will count 50 pts towards the course total.

Grading Criteria

Points: Exam I -----	50 pts	Grading: Points	Grade
Exam II -----	50	243-270	A
Exam III -----	50	202-242	B
Quizzes (7x10)--	70	below 202	C
Case Report -----	50		
Total -----	270 pts		

Academic Honesty

Violations of academic honesty principles are extremely serious and won't be tolerated. Examples of dishonesty are records theft, cheating on examinations, altering grades, and plagiarism. Specific instances of dishonesty are investigated first by the instructor, then the program director. The penalty for dishonesty can range from an F grade to expulsion from the University.

TITLE IX

Chaminade University of Honolulu recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct will NOT be tolerated at Chaminade. If you have been the victim of sexual misconduct, we encourage you to report this matter promptly. As a faculty member, I am interested in promoting a safe and healthy environment. Should I learn of any sexual misconduct, I am required to report the matter to the Title IX Coordinator as part of my mandatory

reporting responsibilities. If you wish to speak to a **confidential** source, you may contact Dr. June Yasuhara in the Personal Counseling Center on the Chaminade campus. Phone | [808.735.4845](tel:808.735.4845) |

SCIENTIFIC METHOD DEFINITIONS

The **METHODS OF SCIENCE** are only tools, tools that we use to obtain knowledge about phenomena.

The **SCIENTIFIC METHOD** is a set of assumptions and rules about collecting and evaluating data. The explicitly stated assumptions and rules enable a standard, systematic method of investigation that is designed to reduce bias as much as possible. Central to the scientific method is the collection of data, which allows investigators to put their ideas to an empirical test, outside of or apart from their personal biases. In essence, stripped of all its glamour, scientific inquiry is nothing more **THAN A WAY OF LIMITING FALSE CONCLUSIONS ABOUT NATURAL EVENTS**.

Knowledge of which the credibility of a profession is based must be objective and verifiable (testable) rather than subjective and untestable.

SCIENCE is a mode of controlled inquiry to develop an objective, effective, and credible way of knowing.

The assumptions one makes regarding the basic qualities of human nature (that is, cognitive, affective, behavioral, and physiological processes) affect how one conceptualizes human behavior.

The two basic functions of scientific approach are 1) advance knowledge, to make discoveries, and to learn facts in order to improve some aspect of the world, and 2) to establish relations among events, develop theories, and this helps professionals to make predictions of future events.

Research Design in Counseling
Heppner, Kivlighan, and Wampold

A **THEORY** is a large body of interconnected propositions about how some portion of the world operates; a **HYPOTHESIS** is a smaller body of propositions. **HYPOTHESES** are smaller versions of theories. Some are derived or born from theories. Others begin as researchers' hunches and develop into theories.

PSY 606: Course Syllabus—Page Three

The **PHILOSOPHY OF SCIENCE** decrees we can only falsify, not verify (prove), theories because we can never be sure that any given theory provides the best explanation for a set of observations.

Research Method in Social Relations
Kidder

THEORIES are not themselves directly proved or disproved by research. Even **HYPOTHESES** cannot be proved or disproved directly. Rather, research may either support or fail to support a particular hypothesis derived from a theory.

Scientific research has four general goals: (1) to describe behavior, (2) to predict behavior, (3) to determine the causes of behavior, and (4) to understand or explain behavior.

Methods In Behavioral Research; Cozby

In order to verify the reliability and validity of scientific research it is important to replicate the results. It is the preponderance of evidence that establishes/supports the theory.

<http://allpsych.com/researchmethods/replication.html>

MARIANIST EDUCATIONAL VALUES

The five characteristics of a Marianist Education are:

1. Educate for Formation in Faith

Catholic Universities affirm an intricate relationship between reason and faith. As important as discursive and logical formulations and critical thinking are, they are not able to capture all that can be and ought to be learned. Intellectual rigor coupled with respectful humility provide a more profound preparation for both career and life. Intellectual rigor characterizes the pursuit of all that can be learned. Respectful humility reminds people of faith that they need to learn from those who are of other faiths and cultures, as well as from those who may have no religious faith at all.

2. Provide an Excellent Education

In the Marianist approach to education, “excellence” includes the whole person, not just the technician or rhetorician. Marianist universities educate whole persons, developing their physical, psychological, intellectual, moral, spiritual and social qualities. Faculty and students attend to fundamental moral attitudes, develop their personal talents and acquire skills that will help them learn all their lives. The Marianist approach to education links theory and practice, liberal and professional education. Our age has been deeply shaped by science and technology. Most recently, information and educational technologies have changed the way faculty and students research and teach. At Marianist Universities, two goals are pursued simultaneously: an appropriate use of information technology for learning, and the enhancement of interaction between students and teachers. As Catholic, Marianist Universities seek to embrace diverse peoples and understand diverse cultures, convinced that ultimately, when such people come together, one of the highest purposes of education is realized: a human community that respects every individual within it.

3. Educate in Family Spirit

Known for their strong sense of community, Marianists have traditionally spoken of this sense as “family spirit.” Marianist educational experience fosters the development of a community characterized by a sense of family spirit that accepts each person with loving respect, and draws everyone in the university into the challenge of community building. Family spirit also enables Marianist universities to challenge their students, faculty and staff to excellence and maturity, because the acceptance and love of a community gives its members the courage to risk failure and the joy of sharing success.

4. Educate for Service, Justice, and Peace

The Marianist approach to higher education is deeply committed to the common good. The intellectual life itself is undertaken as a form of service in the interest of justice and peace, and the university curriculum is designed to connect the classroom with the wider world. In addition, Marianist universities extend a special concern for the poor and marginalized and promote the dignity, rights and responsibilities of all people.

5. Educate for Adaptation to Change

In the midst of rapid social and technological change, Marianist universities readily adapt and change their methods and structures so that the wisdom of their educational philosophy and spirituality may be transmitted even more fully.

Marianist Educational Values (cont.):

“New times call for new methods,” Father Chaminade often repeated. The Marianist university faces the future confidently, on the one hand knowing that it draws on a rich educational philosophy, and on the other fully aware for that philosophy to remain vibrant in changing times, adaptations need to be made.

Selected from *Characteristics of Marianist Universities: A Resource Paper*, Published in 1999 by Chaminade University of Honolulu, St. Mary’s University and University of Dayton

Each of these characteristics is integrated, to varying degrees, in this course.

Attendance

Completion of all assigned materials is a requirement for acceptable performance in this class. **If any issues in completing any of the requirements (e.g., weekly quiz) then contact your instructor for alternative arrangements.**

Students with Disabilities

Chaminade will provide assistance for any student with documented disabilities. Any student who believes he/she may need accommodations in this class must contact **Dr. June Yasuhara, 735-4785**, at the Counseling Center (office next to Security) in order to determine if the student meets the requirements for documented disability in accordance with the Americans with Disabilities Act. It is important to contact them as soon as possible so that accommodations are implemented in a timely fashion.

Course Calendar:

Week of	Topic	Lesson
April 6	Unit I: Introduction to course; description of assignments Sample Case Report (via email) Intro. to Measurement; Design of Ability Tests;	1-1 1-2
13	APA ethical standards (2010), go to: http://www.apa.org/ethics/code/index.aspx Design of Typical Performance Tests Reading: issue in education--CRT vs NRT tests: http://www.proftesting.com/test_topics/pdfs/test_types_CRT.pdf In class exercise: using the K-BIT2 and WRAT3	internet 2
20	Understanding the MBTI and Big Five Inventory (go to: http://www.humanmetrics.com/cgi-win/jtypes2.asp) (go to: https://positivepsychology.com/big-five-personality-theory/) Working with Scores --Review for Exam I	3-1 3-2 3-3
27	--EXAM I Start of Unit II: Reliability	4
May 4	Validity Analysis Item Analysis	5-1 5-2
11	Testing in Educational Settings Cross-cultural issues in testing in the context of school, community and marriage & family counseling Review for Exam II	6

18	EXAM II	
	Start of Unit III : Nature of intelligence	7
	Read “Bell Curve” ch 1 (pdf from instructor)	
25	Testing in Clinical Settings	8-1
	Testing in Counseling Settings	8-2
June 1	Testing in Business and Industry	9
	Review for Final Exam	
	--Case Reports due	
8	--EXAM III	

LIST OF AVAILABLE TESTS

TEST NAME	APPROX. TIME REQUIRED
Required Tests	

- | | |
|---|-----------|
| 1) Myers-Briggs Type Inventory (MBTI) (required) | 15-20 min |
| Use short version available from: humanmetrics.com | |
| 2) Big Five Inventory (BFI) | 15-20 min |
| available from: https://www.truity.com/test/big-five-personality-test | |

NOTE: Remaining tests are to be chosen based on relevance to case; All the following are available at Dropbox.com (PSY 606 Scales folder)

- | | |
|--|-------------|
| 2) Hudson Scales (Hudson, 1982) | 15 min each |
| a) Child's Attitude Toward Father (CAF)—quality of relationship with father | |
| b) Child's Attitude Toward Mother (CAM)—quality of relationship with mother | |
| c) Generalized Contentment Scale (GCS)—life satisfaction | |
| d) Index of Family Relations (IFR)—quality of relationship with family members | |
| e) Index of Marital Satisfaction (IMS)—level of marital satisfaction | |
| f) Index of Parental Attitudes (IPA)—quality of parental relationship with children | |
| g) Index of Peer Relations (IPR)—quality of relationship with peers | |
| h) Index of Self-Esteem (ISE)—level of self esteem | |
| i) Index of Sexual Satisfaction (ISS)—level of sexual satisfaction in relationship | |
| j) Sexual Attitude Scale (SAS)—level of sexual conservatism | |

Scoring Hudson scales: i) At bottom of each scale is a list of numbers—these refer to the items on the scale which are to be reverse-scored--e.g., if nos. read "1, 3, 5" then score as follows:

Item	Score	Reverse score	Key: Regular	Reverse
1	3	3	1	5
2	1		2	4
3	1	5	3	3
4	5		4	2
5	5	1	5	1

Sums: 6 9

- ii) **SCORE = sum of regular scores (uncrossed out) + sum of reverse scores - 25 pts**
 iii) increasing score indicates decreasing level of construct (≥ 30 = “elevated”; < 30 is “favorable”)

- | | |
|--|-----------|
| 3) Beck Depression Inventory (BDI) (Beck, 1967)—level of depression | 15-20 min |
| 4) State-Trait Anxiety Inventory (STAI) (Spielberger et al., 1976)—level of anxiety | 15-20 min |

of the moment (A-state) as well as anxiety proneness (A-trait)

- | | |
|---|-----------|
| 5) Locus of Control (LOC) (Nowicki & Strickland, 1973)—sense of personal control | 15-20 min |
| 6) Adverse Childhood Events (ACE) scale (Fellitti et al. 1998)—checklist of ACE events | 15-20 min |
| 7) Social Desirability Scale (SD) (Crowne & Marlowe, 1960)—importance of appearing favorable | 15-20 min |
| 8) Job Satisfaction Index (JSI) (BPC Publishing Ltd, 1975)—level of job satisfaction | 15-20 min |
| 9) Michigan Alcoholism Screening Test (MAST)—predisposition to alcoholism | 5-10 min |

PSY 606: Supplemental Readings (provided by instructor):

- 1) Bullinger, M., Anderson, R., Cella, D. & Aaronson, N. (1993), Developing and evaluating cross-cultural instruments from minimum requirements to optimal models. *Quality of Life Research*, 2, 451-459
- 2) Cronbach, L.J. & Meehl, P.E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52, 281-302.
- 3) Dube SR, Felitti VJ, Dong M, Giles WH, Anda RF. The Impact of Adverse Childhood Experiences on Health Problems: Evidence from Four Birth Cohorts Dating Back to 1900. *Preventive Medicine*. 2003; 37: 268-77.
- 4) Dunning, D., Heath, C. & Suls, J.M. (2004). Flawed self-assessment: Implications for health, education, and the workplace. *Psychological Science in the Public Interest*, 5(3), 69-106.
- 5) Gosling, S.D., Vazier, S., Srivastava, S. & John, O.P. (2004). Should we trust Web-based studies? A comparative analysis of six preconceptions about Internet questionnaires. *American Psychologist*, 59, 93-104.
- 6) Jackson, D.N. (1969). Multimethod factor analysis in the evaluation of convergent and discriminant validity. *Psychological Bulletin*, 72, 30-49
- 7) Li, H. & Wainer, H. (1998). Toward a coherent view of reliability in test theory. *Journal of Educational and Behavioral Statistics*, 23, 478-484.
- 8) Pareek, U., & Rao, T.V. (1980). Cross-cultural surveys and interviewing. In H.C. Triandis & J.W. Berry (Eds.), *Handbook of cross-cultural psychology: Methodology* (Vol. 2, pp. 127-179), Boston: Allyn & Bacon.
- 9) Poole, J.C., Dobson, K.S., & Pusch, D. (2017). Neglect childhood adversity and adult depression: The protective role of psychological resilience. *Child Abuse & Neglect*, 64, 89-100.
- 10) Rosenthal, R., and Rosnow, R.L. (2008, 3rd ed.). *Essentials of behavioral research*. Boston: McGraw-Hill (chs 4: reliability & validity of measurements; 6: questionnaires, interviews and diaries).

APPENDIX B
PSY 606: Psychological Testing

TESTING AGREEMENT

In agreeing to take these psychological tests, I understand that this is a class exercise and that the test administrator is a graduate student in a course on psychological testing, and is thereby not qualified to administer and interpret these tests at a professional level. I further understand that all evaluations based on the results of these tests should be considered as tentative and inconclusive, in light of the non-professional nature of the test-taking situation. I also understand that in order to obtain a fully valid psychological profile, I would need to consult a licensed clinical psychologist/psychometrician. Finally it is my understanding that my test results will be anonymous and my identity protected throughout this process.

Signed:

testing volunteer

student test administrator

Note: Once signed, this form will be retained by the student test administrator;
The instructor will not see this form;
The name of the testing volunteer will not be divulged in any manner.