

ERSH 6600: Applied Educational Assessment
Spring, 2005
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Goal of the course: To provide information and practice on basic concepts of testing and measurement, from the perspective of a test development professional.

Text: Popham, W.J. (2002) *Modern educational measurement*. Boston: Allyn & Bacon
 Also material on file in Curriculum Materials Center, 207 Aderhold

Course schedule (approximate)

Date	Topics	Reading
1/10	Introductions, Overview of Measurement	MEM*: Ch 1-2
1/17	MLK Holiday, no class	<i>Letter from Birmingham Jail</i>
1/24	Basic statistical concepts	MEM: Appendix
1/31	Validity	MEM: Ch 4
2/7	Reliability	MEM: Ch 5
2/14	Scaling, norming, types of scores (CRT/NRT) Test review due	MEM: Ch 7
2/21 - 3/7	Objectives, Specifications, and Item writing Take-home midterm due (3/7)	Martinez MEM: Ch 8-9
3/14	Spring Break, no class	Trashy novels on beach
3/21	Performance Assessment	MEM: Ch 10-11
3/28	Guest Lecture: Creating Valid Performance Assessments: Dr. Belita Gordon	
4/4	Differential Item Functioning/Adverse Impact/Bias Review and discussion	MEM: Ch 6
4/11	The Lake Woebegone Effect Effects on test scores Test Preparation	Cannell, etc Mehrens & Kaminski
4/18-25	Standard Setting	MEM: pp. 369-374
5/2	Measuring affective outcomes Program Evaluation and Accountability	MEM: Ch 13 MEM: Ch 15
5/4	Project due by 4:00 PM	

*-MEM: *Modern educational measurement*

Learning Objectives by Topic

The successful student will be able to:

Validity

- define various types of validity.
- select the type(s) of validity appropriate/required for a given purpose.
- discuss the effects of situational variables on validity.

Reliability

- define various types of reliability.
- select the type(s) of reliability appropriate/required for a given purpose.
- choose appropriate means to measure and to increase the reliability of a test.

Basic statistical concepts

- interpret (*not* calculate (well, maybe a little)) basic statistics.
- represent statistical concepts and values graphically.

Scaling, norming, types of scores (CRT/NRT)

- compare and contrast the development, usefulness, and interpretation of Objective-, Criterion/Domain-, and Norm-Referenced tests.
- translate from one score scale to another, using common rules.
- describe the process of norming .
- generalize about a student's performance based on observed test scores.

Item and task creation

- identify the parts of a test item.
- write assessment objectives and specifications.
- devise distractor strategies for test items.
- write test items to a specific objective and vice versa.

Differential Item Functioning

- define DIF and distinguish it from adverse impact and bias.
- describe means to reduce or eliminate DIF and bias.

The Lake Woebegone Effect

- describe and discuss the "Lake Woebegone" phenomenon.

Standard Setting

- describe appropriate procedures for setting passing scores for multiple choice and performance assessments.

Test Preparation

- describe appropriate and inappropriate activities in preparing students to take a test.

Performance Assessment

- describe advantages and problems associated with performance assessments.
- create a valid performance assessment task.
- create a reliable performance assessment scoring rubric.

Student Activities

Reading the text and other materials.
Participating in class lecture, discussion, hands-on work.
Reviewing a published test (10% of grade).
Completing a take-home examination (40% of grade).
Designing a test (Final project, 50% of grade).

Published Test Review

Identify a test or assessment instrument in an area that interests you and investigate it. You can use *Tests in Print*, *Buros' Mental Measurement Yearbooks*, publishers' technical information, etc as resources. Write an evaluative summary of what you have learned in about 2 pages. More detailed guidelines will be provided.

Final Project

Construct a test of your own design, for any purpose you choose. The test may be in multiple choice or performance format. Performance tests must include detailed scoring criteria. Creativity is valued, as is the assessment of outcomes higher than recall of knowledge. The report should include documentation on:

- Purpose of the test.
- Decisions it is valid for.
- A blueprint and table of specifications.
- Sample objectives and associated item specifications
- Sample items or performance tasks, including distractor strategies, scoring criteria, and/or marker performances.
- Validity evidence (or how it will be collected).
- Reliability evidence (or how it will be collected).
- Norming Population (if appropriate)
- Performance Criterion, and how it will be developed (if appropriate).
- Administration procedures.
- Types of scores to be provided and how they are to be interpreted.

A set of more detailed guidelines will be provided.

Note: When submitting written work, your name should appear only on the *back* of the *last* page. Also, please avoid fancy bindings and folders. I prefer a simple staple in the upper left corner.