

George Mason University
College of Education and Human Development
Educational Psychology

EDRS 630 - 001 – Educational Assessment
3 Credits, Spring 2018
Mondays, 16:30 – 19:10 Thompson L019 - Fairfax

Faculty

Name: Divya Varier, Ph.D.
Office Hours: By Appointment
Office Location: West Suite 2106
Office Phone: 703-993-5047
Email Address: dvarier@gmu.edu

Prerequisites/Corequisites: None

University Catalog Course Description

Examines research theory and practice relevant to assessments. Focuses on assessment strategies for students including developing skills to select, score, and interpret educational assessments.

Course Overview

The purpose for the course is for students to attain a high level of professional understanding and competent use of educational assessment practices. Course content focuses on understanding learning and assessment theory, research, and practice in order to assess learning in a variety of settings, such as K-12 formal educational environments, higher education, or informal learning across the lifespan. Specific content addresses standards for educational and psychological measurement; the role of assessment in the context of current school reform initiatives; best practices in assessment development; and use of assessment data for educational decision-making for individuals, groups, educational practices, or policy.

Course Delivery Method

Lecture. Learning approaches focus on student engagement, development of deep understanding, and appropriate praxis. Students apply project- and problem-based learning to examine and assess a learning problem in their work environment or one in which they are interested. Problems can address K-12, higher education, adult learning, the workplace, or informal learning environments leading to the development and analysis of an educational assessment to address the problem. Other strategies include readings and classroom discussions, mini-lectures, in-class assignments and quizzes, and assessment development. Students will be expected to be able to work in multiple types of groups and individually through-out the course. Small group discussions and practice work sessions will provide hands-on experience to develop deep understanding of assessment strategies. Mini-lectures work in tandem with the required readings.

Please bring your laptop to each class session since class –related materials will be posted electronically.

Learner Outcomes or Objectives

This course is designed to enable students to do the following:

- Understand and explain the cognitive bases for learning and their connections to various forms of assessments of learning.
- Understand the nature, purposes for, and uses of different types of assessments and be able to select and administer the appropriate assessment for the intended purpose, or develop classroom-based assessments.
- Understand the conceptual framework underlying classroom, school, or system level assessment data, and use the framework to design assessments and scoring methods that will allow stakeholders to draw valid inferences from the assessment data.
- Understand how to administer, score, and interpret results from various types of assessment, such as classroom assessment or standards-based or norm-referenced assessments.
- Use various types of assessment data to make valid inferences and appropriate decisions related to instructional planning, teaching, developing curriculum, educational programs, and/or school improvement.
- Explain scores, results, data, and analysis of various types of assessments to stakeholder groups.
- Understand concepts related to validity, reliability, fairness, ethical use, social justice and other basic principles of sound assessment and apply to practice in development and use and also by addressing misconceptions and misapplications of the concepts when employed by others.
- Identify critical issues, trends, and best practice derived from research related to the role of the design of assessments for accountability.
- Explain the relationship between learning, testing, and issues of social justice.

Professional Standards

Learner outcomes are consistent with the Educational Psychology Program standards:

- Educators will demonstrate an understanding of principles and theories of learning, cognition, motivation, and development as they apply to a wide variety of contemporary assessment contexts.
- Educators will use their knowledge, skills, and dispositions to apply principles and theories of learning, cognition, motivation, and development to analyze and develop instruction based on sound assessment principles.
- Educators will demonstrate an understanding of the basic concepts, principles, techniques, approaches, and ethical issues involved in educational assessment.
- Educators will use their knowledge of quantitative and qualitative research methodology to develop education assessment methods for continuing improvement of student learning.

The student outcomes are also informed by the Standards for Teacher Competence in Educational Assessment of Students (AFT, NCME, NEA, 1990), the Standards for Competence in Student Assessment (AASA, NAESP, NASSP, NCME, 1990), the Standards for Educational and

Psychological Testing (AERA, NCME, & APA, 2014), and the InTASC Model Core Teaching Standards (CCSSO, 2011).

Those standards most relevant to address the learning targets for the course are those that state that educators will have the knowledge, skills and dispositions to:

- Apply basic principles of sound assessment practices for addressing specific educational needs.
- Distinguish between the nature and uses for norm-referenced and criterion-referenced tests.
- Select assessment methods appropriate for instructional decisions.
- Develop assessment methods appropriate for instructional decisions.
- Administer, score, and interpret the results of both externally-produced and teacher produced assessment instruments.
- Use assessment results in instructional planning, teaching, developing curriculum, and school improvement.
- Communicate assessment results to varied stakeholders.
- Recognize and appropriately act against unethical, illegal, and otherwise, appropriate assessment methods and uses of assessment information.
- Recognize the implications of educational assessments for social justice in schools.
- Discern critical issues related to the role of the design of assessments for school accountability and high stakes testing.
- Gather evidence from multiple sources of data to draw valid inferences about student learning.

Required Texts

American Educational Research Association (AERA), American Psychological Association, & National Council on Measurement in Education. (2014). *Standards for educational and psychological testing*. Washington, DC: AERA.

McMillan, J.H. (2018). *Classroom Assessment. Principles and Practice that Enhance Student Learning and Motivation*. (7th ed.) Pearson: NY

Recommended Texts

American Psychological Association. (2010). *Publication manual of the American Psychological Association*. (6th ed.). Washington, DC: Author.

Additional Readings:

American Association of School Administrators. (1997). *Competency standards in student assessment for educational administrators*. Retrieved from: <http://buos.org/competency-standards-student-assessment-educational-administrators>

American Federation of Teachers, National Council on Measurement in Education & National Education Association. (1990). *Standards for teacher competence in educational assessment of students*. Retrieved from: <http://buos.org/standards-teacher-competenceeducational-assessment-students>

- Barton, P. E., & Coley, R. J. (2009). Parsing the Achievement Gap II. Princeton, NJ: Educational Testing Service. Retrieved from:
<http://www.ets.org/Media/Research/pdf/PICPARSINGII.pdf>
- Kirpes, A. L. & Price, C. (2009). Demystifying assessments: Understanding the test development process in large-scale assessments. *Edge*, January/February, 4 (3), 3- 19.
- Joint Committee on Standards for Educational Evaluation. (2012, September). Classroom assessment standards: Draft 5. Boone, NC: Author. Jordan, W. J. (2010). Defining equity: Multiple perspectives to analyze the performance of the diverse learner. *Review of Research in Education*, 34(1), 142-178. doi: 10.3102/0091732X09352898
- Layton, L. (2015, October 24). Study says standardized testing is overwhelming nation's public schools. *The Washington Post*. https://www.washingtonpost.com/local/education/studysays-standardized-testing-is-overwhelming-nations-public-schools/2015/10/24/8a22092c79ae-11e5-a958-d889faf561dc_story.html
- Luke, A., Green, J., & Kelly, G. J. (2010). What Counts as Evidence and Equity? *Review of Research in Education*, 34(1), vii-xvi. doi:10.3102/0091732X09359038
- National Center for Fair and Open Testing (Fair Test) www.fairtest.org
- National Research Council. (2010). *State Assessment Systems: Exploring Best Practices and Innovations: Summary of Two Workshops*. Alexandra Beatty, Rapporteur. Committee on Best Practices for State Assessment Systems: Improving Assessment While Revisiting Standards. Center for Education, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.
- Quellmalz, E., Silbergliitt, M., & Timms, M. (2011). *How Can Simulations Be Components of Balanced State Science Assessment Systems?* San Francisco, CA: WestEd. Retrieved January from: <http://simscientist.org/downloads/SimScientistsPolicyBrief.pdf>
- Rudner, Lawrence M. (1994). Questions to ask when evaluating tests. *Practical Assessment, Research & Evaluation*, 4(2). <http://pareonline.net/getvn.asp?v=4&n=2>
- Stiggins, R. (2008). *Assessment For learning. The achievement gap and truly effective schools*. Portland: ETS Assessment Training Institute. Retrieved from:
http://www.ets.org/Media/Conferences_and_Events/pdf/stiggins.pdf
- Xiang, Y., Dahlin, M., Cronin, J., Theaker, R., & Durant, S. (2011, September). Do high flyers maintain their altitude? Performance trends of top students. Washington, DC: Thomas Fordham Institute. Retrieved from:
<http://www.edexcellence.net/publications/highflyers.html>

Website Resources

Achieve, The Council of Chief State School Officers, & Student Achievement Partners. (2014). Toolkit for evaluating alignment of instructional and assessment materials to the Common Core State Standards. Washington, DC: Author.
http://www.achieve.org/files/MaterialsAlignmentToolkit_Version2-12-08-2014.pdf

Assessment Basics

<http://www.ctb.com/ctb.com/control/assessmentBasicsTabAction?p=underAssess>

Assessment Training Institute (ATI) <http://ati.pearson.com/tools-resources/index.html>

Buros Center for Testing, including the Mental Measurements Yearbook <http://www.unl.edu/buros/>

Council of Chief State School Officers (CCSSO)

http://www.ccsso.org/Resources/Digital_Resources/Toolkit_for_Evaluating_Alignment_of_Instructional_and_Assessment_Materials_.html

Multimedia Educational Resources for Learning and Online Teaching (MERLOT)

https://www.merlot.org/merlot/materials.htm?hasCollections=false&hasEtextReviews=false&isContentBuilder=false&filterOtherOpen=false&hasAssignments=false&hasAwards=false&category=2267&filterSubjectsOpen=true&hasRatings=false&filterTypesOpen=true&filterMobileOpen=false&hasCourses=false&filterPartnerAffiliationsOpen=true&hasSercActivitySheets=false&sort.property=&_materialType=&materialType=Assessment+Tool&filterOS=&_hasPeerReviews=&_hasEditorReviews=&_hasComments=&_creativeCommons=&_hasAccessibilityForm=

National Center for Education Statistics <http://nces.ed.gov>

National Research Center on Evaluation, Standards, and Student Testing (CRESST),

<http://www.cse.ucla.edu/>

National Research Council. (2014). Developing Assessments for the Next Generation Science Standards. Committee on Developing Assessments of Science Proficiency in K-12. Board on Testing and Assessment and Board on Science Education, J.W. Pellegrino, M.R. Wilson, J.A. Koenig, and A.S. Beatty, Editors. Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.

http://www.nap.edu/catalog/18409/developing-assessments-for-the-next-generationsciencestandards?utm_medium=email&utm_source=The+National+Academies+Press&utm_campaign=NAP+mail+new+2014.06.03&utm_content=&utm_term=&utm_expid=4418042-5.krRTDpXJQISoXLpdo-1Ynw.0

PARCC website. <http://www.parcconline.org/parcc-assessment>

Smarter Balanced Website. Review of web pages about the tests

<http://www.smarterbalanced.org/smarter-balanced-assessments/>

Southwest Regional Development Laboratory. Reading assessment database.
<http://www.sedl.org/reading/rad/>.

Virginia Department of Education (VDOE) website on Standards of Learning, Accountability, Reporting. <http://www.doe.virginia.gov/testing/>

Virginia Department of Education. (April 28, 2011). Board of Education Agenda Item. Richmond, VA: Author. Retrieved from:
http://www.doe.virginia.gov/boe/meetings/2011/04_apr/agenda_items/item_1.pdf

WestEd http://www.wested.org/area_of_work/standards-assessment-accountability/

Wisconsin Center for Education Research <http://www.wcer.wisc.edu/articleindex/index.php>

Course Performance Evaluation

Students are expected to submit all assignments on time via Blackboard or in the manner outlined by the instructor. Late submissions will not be accepted – notify the instructor of any extenuating circumstances preferably in advance.

- **Assignments**

- **A. Classwork/Homework (20%)**

Various in-class and/or homework assignments will be included. The purpose of these assignments is to provide students with hands-on opportunities to practice course content. These assignments typically include reflections, online/paper-based practice exercises or short (one page) essays on the Standards. Homework assignments are due before the beginning of the class period. In-class assignments are due at the end of the class session or as determined by the instructor.

- **B. Assessment Development Project (70%)**

This is an individual experiential project and written assignment. The purpose of this assignment is to develop an assessment of learning within a specific context or content area. For example, an assessment of linear equations for high school students, or an assessment of a complex skill (like critical-thinking or analytical skills), or competency acquired through life experience, or assessing learning in an informal environment (a workshop at a museum, for instance). Choose a context/content where there is a need for better assessing learning. The following components are part of the project:

a. **Introduction (5%)**: A one-page summary of the context/content of interest (learning construct), overview of the literature, the gap in assessment of learning in this context, and the purpose of the project.

b. **Literature Review (5%)**: This section (two – four pages) discusses the context/content that is the focus of your project, examines the learning and assessment issues, critically reviews existing assessments, and discusses the assessment methods necessary for measuring your learning construct. The review of existing assessments should address reliability and validity evidence of the measures. If validity and reliability data are available, provide a description in the literature review.

c. Methods (10%): This section outlines your plan to develop, administer, and analyze your assessment. You must include the procedures, participants, how you will gather reliability and validity evidence, and a test blueprint. Follow APA guidelines to inform the draft of your methods section.

d. Measures (20%): You must develop a minimum of ten selected-response items (SRIs) that are multiple choice items and answer key. You may also develop other types of SRIs (like true-false) in addition to the multiple choice tests. You must also develop one in-depth measure of performance or constructed-response item (CRI) and rubric to assess that performance. Include your initial measure in this section. You will provide a revised measure in the next section based on your pilot test data analysis.

e. Pilot test data collection and analysis (20%): You will pilot test your measure (both SRI and CRI) together or separately and gather data from a group of participants. Follow ethical guidelines set by the Institutional Review Board even though an IRB approval is not required for this assignment. Conduct data analyses to gather reliability and validity evidence (guidance and resources will be provided in class). Revise your measure based on the data analysis results. Include a revised measure in this section.

f. Discussion (10%): This section (two – three pages) will provide a summary of the results and a discussion about what was learned from the pilot test, uses for the test, limitations, and areas for research. Include a reflection on what you learned from doing the project. The final report will include revisions to all previous sections based on instructor feedback. Follow APA guidelines to format the final report.

Note: Drafts for each section should be submitted for feedback from the instructor (see due dates for checkpoints in the course schedule). While these drafts will not be graded, the final report must show changes made to the initial drafts using tracked changes. The purpose of the checkpoints is to track progress, provide individualized support for your project and divide the project into manageable tasks. The instructor strongly recommends due diligence with regard to checkpoint submissions.

- **Participation (10%)**

Participation includes attendance (coming to class, on time, and notifying the instructor in the event that a student has to miss class), completing assigned readings, and engaging in small group discussions and activities.

- **Grading**

Percent	Letter Grade
98 – 100	A+
93 – 97	A
90 – 92	A-
88 – 89	B+
83 – 87	B
80 – 82	B-
70 – 79	C
Below 70	F

Professional Dispositions

See <https://cehd.gmu.edu/students/polices-procedures/>

Class Schedule

Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.

Date	Topic	What's Due?
1/22	Introductions; Syllabus Review; Assessment in teaching and learning;	McMillan Chap 1 Standards: Preface/Introduction
1/29	Relationship between Learning, Teaching, and Assessments Standards and Cognitive Learning Targets	McMillan Chapter 2 Shepard, 2000 Standards: Applications (12)
2/5	High Quality Assessment: Validity, Fairness, and Reliability	McMillan Chapter 3 Standards: Foundations (1, 2, 3)
2/12	Types of Assessment Purposes of Assessment Test Development Process	McMillan Chapter 4, 5, 6 Standards: Operations (4) Project: Introduction Due
2/19	Types of Assessment Purposes of Assessment Test Blueprint	McMillan Chapter 7, 8, 9 Standards: Operations (6, 8, 9)
2/26	Assessing Complex Skills	McMillan Chapter 10, 11
3/5	Assessing Students with Special Needs; Culturally and Linguistically Diverse Learners	McMillan Chapter 12, 13, 14 Project: Literature Review Due
3/12	GMU Spring Break: NO CLASS	
3/19	Assessing NonCognitive Dispositions	McMillan Chapter 14
3/26	Grading and Reporting	McMillan Chapter 15 Project: Methods Due
4/2	Criteria for reviewing tests	Project: Measures Due
4/9	Individual Meetings: No class	
4/16	Individual Meetings: No class	
4/23	Data Analysis Party!	Bring Pilot Data
4/30		Project: Pilot Results and Discussion Due
5/7	Reading Day: NO CLASS MEETING	

Core Values Commitment

The College of Education and Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles: <http://cehd.gmu.edu/values/>.

GMU Policies and Resources for Students

Policies

- Students must adhere to the guidelines of the Mason Honor Code (see <https://catalog.gmu.edu/policies/honor-code-system/>).
- Students must follow the university policy for Responsible Use of Computing (see <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).
- Students are responsible for the content of university communications sent to their Mason email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students **solely** through their Mason email account.
- Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see <http://ods.gmu.edu/>).
- Students must follow the university policy stating that all sound emitting devices shall be silenced during class unless otherwise authorized by the instructor.

Campus Resources

- Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or <https://cehd.gmu.edu/aero/tk20>. Questions or concerns regarding use of Blackboard should be directed to <http://coursesupport.gmu.edu/>.
- For information on student support resources on campus, see <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>

For additional information on the College of Education and Human Development, please visit our website <https://cehd.gmu.edu/students/> .

EDRS 630

Assessment Development Project Rubric

CRITERIA	Unsatisfactory (1)	Minimal (2)	Competent (3)	Outstanding (4)	Score
Introduction					
A one-page summary of the context/content of interest (learning construct), overview of the literature, the gap in assessment of learning in this context, and the purpose of the project.	Introduction is not included or is incomplete Only some aspects of the component are addressed;	Includes all or most parts of the component but in insufficient detail or with many inaccuracies	Includes all aspects of the component that are adequately addressed	Includes all aspects of the component that are addressed completely and exceptionally well	
Literature Review					
This section (two – four pages) discusses the context/content that is the focus of your project, examines the learning and assessment issues, critically reviews existing assessments, and discusses the assessment methods necessary for measuring your learning construct. The review of existing assessments should address reliability and validity evidence of the measures. If validity and reliability data are available, provide a description in the literature review.	Lit. review is not included or is incomplete	Includes all or most parts of the component but demonstrates inaccuracies that need to be addressed	Includes all aspects of the component that are adequately addressed	Includes all aspects of the component that are addressed completely and exceptionally well	
Methods					
This section outlines your plan to develop, administer, and analyze your assessment. You must include the procedures, participants, how you will gather reliability and validity evidence, and a test blueprint. Follow APA guidelines to inform the draft of your methods section.	Plan is not included or is incomplete	All or most parts of the component are addressed, but inaccuracies are evident and need to be addressed	Includes all aspects of the component that are adequately addressed	Includes all aspects of the component that are addressed completely and exceptionally well	
Measures					
Develop a minimum of ten selected-response items (SRIs) that are multiple choice items and answer key. You may also develop other types of SRIs (like true-false) in addition to the multiple choice tests. You must also develop one	The measure is missing one or more components listed in the assignment	The measure includes all or most components that are not fully developed	The measure includes all components that are fully developed	Includes all aspects of the component that are addressed completely and exceptionally well	

in-depth measure of performance or constructed-response item (CRI) and rubric to assess that performance. Include your initial measure in this section. You will provide a revised measure in the next section based on your pilot test data analysis					
Pilot Test Implementation and Results					
Pilot test your measure (both SRI and CRI) together or separately and gather data from a group of participants. Follow ethical guidelines set by the Institutional Review Board even though an IRB approval is not required for this assignment. Conduct data analyses to gather reliability and validity evidence (guidance and resources will be provided in class). Revise your measure based on the data analysis results. Include a revised measure in this section.	Pilot study is not included or is incomplete	All or most parts of the component are addressed, but inaccuracies are evident and need to be addressed	Includes all aspects of the component that are adequately addressed	Includes all aspects of the component that are addressed completely and exceptionally well	
Discussion					
This section (two – three pages) will provide a summary of the results and a discussion about what was learned from the pilot test, uses for the test, limitations, and areas for research. Include a reflection on what you learned from doing the project. The final report will include revisions to all previous sections based on instructor feedback. Follow APA guidelines to format the final report.	Discussion is not included or is incomplete	Discussion includes perfunctory comments on the plan and results; no critical analysis is provided	Discussion provides a critical analysis of the strengths and limitations of the plan	Discussion provides insightful critical analysis of strengths and limitations of the plan and results and makes direct connections to course content	
APA Style	Does not adhere to APA style	Minimally adheres to APA style	Most or all APA guidelines are met	Accurately follows APA style throughout	
Total					