

**GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
EDUCATIONAL PSYCHOLOGY PROGRAM**

**EDEP 594, Section 601: Data-Driven Decision-Making Application in Education Contexts
(3 credits)**

Fall 2013

September 16, 2013-December 11, 2013

Wednesdays, 5:00-8:30 p.m.

Olde Creek Elementary School

9524 Old Creek Dr.

Fairfax, Virginia 22032

In partial fulfillment of requirements leading to the Certificate in Data-Driven Decision-Making

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COURSE DESCRIPTION:

A. Prerequisites: EDEP593

B. Course description from the university catalog

Applies fundamental knowledge of assessment using team-based projects. Incorporates development of assessments and the analysis, interpretation, and reporting of assessment data to inform curriculum and instruction based on the context-specific needs of educators.

LEARNER OUTCOMES:

This course is designed to enable students to apply the development, analysis and interpretation of assessment findings in a specific context and to be a change agent at the classroom, school and district levels, advocating the value of data-driven decision making.

The educators will:

- Identify data needed to approach particular educational problems and decisions.
- Critically analyze data to identify trends, problems, implications, and validity of data.
- Use data to plan and justify allocation of resources.
- Use data to plan and justify instructional program design.
- Communicate data effectively both in written and oral presentations.
- Explain relationships between data-based decision-making and policy development.
- Implement a team-derived assessment plan for a school-based context.

PROFESSIONAL STANDARDS:

The program goals are consistent with the Educational Psychology Program standards. The standards, as formulated for assessment for data-driven decision making, are:

- 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 educational assessment methods for continuing improvement of student learning.

The student outcomes are informed by the Standards for Teacher Competence in Educational Assessment of Students (AFT, NCME, NEA, 1990) and the Standards for Competence in Student Assessment (AASA, NAESP, NASSP, NCME, 1990) guide the course content and emphasis for reaching the learning objectives.

Those standards deemed most relevant to addressing the learning targets for the course are those that state that *educators will have the knowledge, skill and disposition to:*

1. Apply basic principles of sound assessment practices for addressing specific educational needs
2. Select assessment methods appropriate for instructional decisions
3. Develop assessment methods appropriate for instructional decisions
4. Administer, score, and interpret the results of both externally-produced and teacher-produced assessment instruments
5. Use assessment results in instructional planning, teaching, developing curriculum, and school improvement
6. Recognize and appropriately act against the unethical, illegal, and otherwise, inappropriate assessment methods and uses of assessment information.
7. Recognize the implications of educational assessments for social justice in schools.
8. Discern critical issues related to the role of the design of assessments for school accountability and high stakes testing.

SUGGESTED READINGS

- Brunner, C., Fasca, C., Heinze, J., Honey, M., Light, D., Mandinach, E., & Wexler, D. (2005). Linking data and learning: The Grow Network study. *Journal of Education for students at Risk*, 10(3), 241-267. doi.org/10.1207/s15327671espr1003_2
- Burnett, E. (2007, Fall). Applying a holistic decision-making model to priorities in school reform. *Catalyst for Change*, 35(1), 30-42.
- Cowan, G. (2007). *Understanding and conducting research in education: A user-friendly approach*. Dubuque, IA: Kendall/Hunt Publishing.
- Hansen, J.S. (2006, November). Education data in California: Availability and transparency. Paper prepared for the *Getting Down to Facts Project*. Stanford, CA: Stanford University Institute for Education Policy and Practice. Retrieved August 22, 2008 from [http://irepp.stanford.edu/documents/GDF/STUDIES/15-Hansen/15-Hansen\(3-07\).pdf](http://irepp.stanford.edu/documents/GDF/STUDIES/15-Hansen/15-Hansen(3-07).pdf)
- Honig, M. I. & Coburn, C. (2008, July). Evidence-based decision making in school district central offices: Toward a policy and research agenda. *Educational Policy*, 22(4), 578- 608. doi: 10.1177/0895904807307067
- Marsh, J.A., Pane, J. F., & Hamilton, L. S. (2006). Making sense of data-driven decision making in education. Rand Education Occasional Paper. Retrieved August 22, 2008 from http://www.rand.org/pubs/occasional_papers/2006/RAND_OP170.pdf
- Kowalski, T., Lasley II, T. J., & Mahoney, J. W. (2008). *Data-driven decisions and school leadership: Best practices for school improvement*. Boston: Pearson Education, Inc.
- Petrides, L.A. (2003). *Turning data into decisions*. Institute for the Study of Knowledge Management in Education. Retrieved August 13, 2013 from <http://www.iskme.org/content/turning-data-decisions>
- Ridolfo, H., & Schoua-Glusberg, A. (2011). Analyzing cognitive interview data using the constant comparative method of analysis to understand cross-cultural patterns in survey data. *Field Methods*, 23(4) 420-438. doi: 10.1177/1525822X11414835
- Schmoker, M. (2006). *Results now: How we can achieve unprecedented improvements in teaching and learning*. Alexandria, VA: Association for Supervision and Curriculum Development.

SUPPLEMENTAL TEXTS

- Creighton, T. B. (2007). *Schools and data: The educator's guide for using data to improve decision making*. Thousand Oaks, CA: Corwin Press.
- Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). Upper Saddle River, NJ: Pearson.
- Kowalski, T. J., & Lasley II, T. J. (2009). *Handbook of data-based decision making in education*. New York: Routledge.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Newbury Park, CA: Sage.

COURSE ASSIGNMENTS

1. Assignment Descriptions

Research shows that frequent assessment of small amounts of material is most effective for learning. Therefore, in this class formal and informal assessment will be continuously provided on assignments and class activities. Assessment is used as a tool for information that informs both learning and teaching, so this two-way communication loop is necessary for optimal learning.

a. Description of Data Sources (10 points)-DUE 9/25

In consultation with their school colleagues, educators will propose a data collection plan or identify a secondary data set that they are interested in analyzing for continuing school improvement. This description will be one to two pages in length.

b. Assessment Plan Proposal (10 points)-DUE 10/9

Educators assemble an assessment plan that they will implement at the classroom, school and/or district level with the supervision of their instructor. The proposal will be written as a formal document between five to seven pages in length. The rubric for the Assessment Plan is found below.

c. Data analysis approach (10 points)-DUE 10/30

Educators will use appropriate qualitative, quantitative, or mixed methods data analysis techniques acquired in prior classes in application to a team-based assessment project. Data analysis will be written as a short formal proposal to be graded using the rubric below. The data analysis should be two to three pages in length.

d. Data interpretation (10 points)-DUE 11/13

Educators will interpret the outcomes derived from the data analysis and draw conclusions based on the proposed assessment goals. Interpretation of the data will be presented to the class using an informal roundtable discussion format. Educators are expected to distribute a clear communication of data and analysis to class members for the discussion. The data interpretation section will be three to five pages in length.

e. Communication plan (10 points)-DUE 12/4

Educators will orally present the highlights of their assessment. This plan will be presented in class with the intention that there will also be an outside audience (such as a stakeholders meeting) in the future.

f. Data reporting and policy application of findings (30 points)-DUE 12/11

Educators will develop a written report of the findings/outcomes of the assessment in a clear, concise, and professional manner, following APA style guidelines. In this report, a separate section will address policy implications in the specific school context. See rubric below. This section will be three to five pages in length.

g. Online Discussions (10 points)-DUE Ongoing

A portion of this class will be conducted online in order to facilitate the incorporation of the new information about assessment into school settings. In order for this component of the class to be successful, all educators need to participate in the online sessions.

h. Class Participation (10 points)-DUE Ongoing

Learning depends on the active engagement of the participant and frequent checking by the instructor as to the progress of the learner. Smaller assignments may be given as necessary in class in order to inform your learning and instructor teaching. Part of the class participation is providing feedback to peers when they present their assessment plans (otherwise known as the consultations).

2. Assignment and Examination Weighting

There are 100 total points for the course, distributed among the following assignments: Assessment Plan Proposal (10%), Description of Data Sources (10%), Data Analysis Approach (10%), Data Interpretation (10%), Data Reporting (30%), Communication plan (10%), Online Discussion (10%), and Class Participation (10%).

<i>Assignments</i>	<i>Points</i>
Assessment plan proposal	10
Description of data sources	10
Data analysis approach	10
Data interpretation	10
Data reporting and policy application of findings	30
Communication plan	10
Online discussions	10
Class participation	10

Total Points: 100

3. Grading Policies

A = 93-100%
A- = 90-92%
B+ = 88-89%
B = 80-87%
C = 70-79%
F = Below 70%

4. Course Expectations

Attendance

Because active participation and engagement are imperative for optimal learning, preparation for and participation in class activities will be evaluated based on the following criteria:

- Students attend class, arrive on time, and stay for the entire class period.
- Students complete readings and prepare for class activities prior to class as is evidenced by their ability to discuss and write about the concepts presented and examined in the texts as well as participate fully in related activities.
- Students are actively involved in in-class and online learning experiences as is evidenced by (1) participating in all activities, (2) engaging in small and large group discussions, (3) using laptops and other electronic devices only to support discussion and learning and not for non-academic uses during class time, (4) completing written work related to the activities, and (5) supporting the participation and learning of classmates.
- Students show evidence of critical reflective thinking through in-class and online discussions, activities, and written reflections.

Note: To determine whether the campus is closed due to inclement weather, call 703-993-1000 or go to www.gmu.edu.

Written Assignments

All written assignments prepared outside of class will be evaluated for content and presentation. The American Psychological Association, Sixth Edition (APA) style will be followed for all written work. Students will do the following:

1. Present ideas in a clear, concise, and organized manner.
2. Develop points coherently, definitively, and thoroughly.
3. Refer to appropriate authorities, studies, and examples to document where appropriate.
4. Use correct capitalization, punctuation, spelling, and grammar.

5. Performance Based Assessment

Throughout the semester, students will complete three performance based assessments, 1) the Assessment Plan, 2) Data Analysis Approach, and 3) Data Reporting and Policy of Application of Findings. The rubrics for each assessment appear at the end of this syllabus.

TASKSTREAM REQUIREMENTS

Every student registered for any Educational Psychology course with a required performance-based assessment is required to submit the Assessment Plan, Data Analysis Approach, and Data Reporting and Policy of Application of Findings to TaskStream (regardless of whether a course is an elective, a onetime course or part of an undergraduate minor). Evaluation of the performance-based assessment by the course instructor will also be completed in TaskStream. Failure to submit the assessment to TaskStream will result in the course instructor reporting the course grade as Incomplete(IN). Unless the IN grade is changed upon completion of the required TaskStream submission, the IN will convert to an F nine weeks into the following semester.

GMU POLICIES AND RESOURCES FOR STUDENTS

a. Students must adhere to the guidelines of the George Mason University Honor Code [See <http://oai.gmu.edu/honor-code/>].

b. Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>].

c. Students are responsible for the content of university communications sent to their George Mason University 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.

d. The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <http://caps.gmu.edu/>].

e. Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <http://ods.gmu.edu/>].

f. Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.

g. The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing [See <http://writingcenter.gmu.edu/>].

PROFESSIONAL DISPOSITIONS

Students are expected to exhibit professional behaviors and dispositions at all times.

CORE VALUES COMMITMENT

The College of Education & 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/>

PROPOSED CLASS SCHEDULE:

Date	Topics/Learning Experiences	Readings and Assignments
Session 1	<i>Assessment and Needs</i>	Reading: Brunner, Fasca, Heinze, Honey,

Sept. 18	<p><i>Analysis</i></p> <ul style="list-style-type: none"> • Introduction to Assessment and Needs Analysis • Extending Previous Research • Filing with IRB 	Light, Mandinach, & Wexler
Session 2 Sept. 25 ONLINE	<p><i>Assessment Planning</i></p> <ul style="list-style-type: none"> • Assessment Planning Based on Needs Analysis • Checking for Alignment in Research Design 	<p>Reading: Burnett</p> <p>DUE: IRB application/Description of Data Sources</p>
Session 3 Oct.2	<p><i>Data Collection</i></p> <ul style="list-style-type: none"> • Collecting empirical evidence • Identifying appropriate data sources 	Reading: Cowan
Session 4 Oct.9 ONLINE	<p><i>Data Analysis</i></p> <ul style="list-style-type: none"> • Methods of Data Analysis • Alignment with Purpose 	<p>Hansen</p> <p>DUE: Assessment Plan</p>
Session 5 Oct. 16	<p><i>Data Analysis</i></p> <ul style="list-style-type: none"> • Methodologies • Focus on Qualitative Methods 	Reading: Ridolfo & Schoua-Glusberg
Session 6 Oct. 23 ONLINE 4:30-9:00	<p><i>Data Analysis</i></p> <ul style="list-style-type: none"> • Mixed Methods 	Individual Meetings with Professor on Data Analysis and Results Sections
Session 7 Oct. 30 ONLINE 4:30-9:00	<p><i>Data Interpretation</i></p> <ul style="list-style-type: none"> • Interpreting and identifying trends, problems, implications, and validity of data 	<p>Field (2006)</p> <p>DUE: Data Analysis Approach</p>
Session 8 Nov. 6	<p><i>Data Interpretations</i></p> <ul style="list-style-type: none"> • Interpreting and identifying trends, problems, implications, and validity of data 	Honig & Coburn (2008, July)
Session 9 Nov. 13	<p><i>Application: Data-Driven Decision-Making</i></p> <ul style="list-style-type: none"> • Making decisions and/or recommendations based on findings 	<p>Marsh, Pane, & Hamilton (2006)</p> <p>DUE: Data Interpretation</p>

Session 10 Nov. 20 ONLINE 4:30-9:00	<p><i>Application</i></p> <ul style="list-style-type: none"> • Policy Development • Instructional Program Design 	Readings: Kowalski, Lasley II, & Mahoney (2008), Burnett (2007, Fall)
<i>Thanksgiving Break</i>		
Session 11 Dec. 4	<p><i>Conclusion</i></p> <ul style="list-style-type: none"> • Checking Alignment • Oral Reports, Communication Plan, and Poster Session 	Readings: Petrides (2003) Schmoker (2006) DUE: Communication Plan
Session 12 Dec. 11	<ul style="list-style-type: none"> • Oral Presentations • Developing Final Posters 	DUE: Data Reporting and Policy Application of Findings

RUBRIC FOR ASSESSMENT PLAN

	Exemplary (8-10 points)	Adequate (6-7 points)	Marginal (4-5 points)	Inadequate (0-3 points)
Topic, Purpose and Research Questions	Appropriate topic, thorough and thoughtful	Appropriate topic, adequate purpose and	Inappropriate topic, does not include thorough	Inappropriate topic, missing thorough and

	purpose and research questions	research questions	and thoughtful purpose or research questions	thoughtful purpose or research questions
Design, Participants and Materials	Appropriate and clearly described design, participants, and materials	Appropriate and adequately described design, participants, and materials	One inappropriate design, participants, or materials, not clearly described	More than one inappropriate design, participants, or materials, not clearly described
Data Sources	Appropriate and clearly described data sources	Appropriate and adequately described data sources	Inappropriate data sources	No mention of data sources
Implementation Procedures	Appropriate and clearly described implementation procedures	Appropriate and adequately described implementation procedures	Inappropriate implementation procedures; not clearly described	No mention of implementation procedures
Writing Style, Grammar and APA Format	Exceptionally clear; easy to follow, no APA errors	Generally clear; able to follow, minor APA errors	Lacks Clarity; difficult to follow, many APA errors	Unclear; Impossible to follow

RUBRIC FOR DATA ANALYSIS APPROACH

	Exemplary (8-10 points)	Adequate (6-7 points)	Marginal (4-5 points)	Inadequate (0-3 points)
Topic, Purpose and Research Questions	Appropriate topic, thorough and thoughtful purpose and	Appropriate topic, adequate purpose and research	Inappropriate topic, does not include thorough and thoughtful	Inappropriate topic, missing thorough and thoughtful

	research questions	questions	purpose or research questions	purpose or research questions
Design, Participants and Materials	Appropriate and clearly described design, participants, and materials	Appropriate and adequately described design, participants, and materials	One inappropriate design, participants, or materials, not clearly described	More than one inappropriate design, participants, or materials, not clearly described
Implementation Procedures	Appropriate and clearly described implementation procedures	Appropriate and adequately described implementation procedures	Inappropriate implementation procedures; not clearly described	No mention of implementation procedures
Data analysis	Appropriate and clearly described data analysis	Appropriate and adequately described data analysis	Inappropriate data analysis	No mention of data analysis
Writing Style, Grammar and APA Format	Exceptionally clear; easy to follow, no APA errors	Generally clear; able to follow, minor APA errors	Lacks Clarity; difficult to follow, many APA errors	Unclear; Impossible to follow

RUBRIC FOR DATA REPORTING AND POLICY APPLICATION OF FINDINGS

	Exemplary (8-10 points)	Adequate (6-7 points)	Marginal (4-5 points)	Inadequate (0-3 points)
Description of Current Policies and Practices	Appropriate, thorough and thoughtful description of current policies	Adequate description of current policies and practices informing the	Limited description of current policies and practices informing the	Limited or no description of current policies and practices informing the

	and practices informing the research topic	research topic	research topic and/or mismatch with research topic	research topic and mismatch with research topic
Topic, Purpose and Research Questions	Appropriate topic, thorough and thoughtful purpose and research questions	Appropriate topic, adequate purpose and research questions	Inappropriate topic, does not include thorough and thoughtful purpose or research questions	Inappropriate topic, missing thorough and thoughtful purpose or research questions
Design, Participants, Materials, and Procedures	Appropriate and clearly described design, participants, materials, and procedures	Appropriate and adequately described design, participants, materials and procedures	One element i.e., design, participants, materials, or procedures not clearly described	More than one element i.e., design, participants, materials, or procedures not clearly described
Data analysis and findings	Appropriate and clearly described data analysis and findings	Appropriate and adequately described data analysis and findings	Inappropriate data analysis and/or reporting of findings	No mention of data analysis and/or findings
Alignment Between Findings and Policy Recommendations	Appropriate and clearly described alignment	Appropriate and adequately described alignment	Inappropriate alignment; not clearly described	No mention of alignment
Policy and Practice Implications of Findings	Appropriate and clearly described implications of findings	Appropriate and adequately described implications of findings	Inappropriate implications of findings; not clearly described	No mention of implications of findings
Writing Style, Grammar and APA Format	Exceptionally clear; easy to follow, no APA errors	Generally clear; able to follow, minor APA errors	Lacks Clarity; difficult to follow, many APA errors	Unclear; Impossible to follow