George Mason University
College of Education and Human Development
Graduate School of Education
Educational Psychology Program

EDEP 593.DL1 – Data-Driven Decision-Making: Analysis & Interpretation of Assessment Data
3 Credits, Spring 2019
January 25nd, 2019- May 12th, 2019

Faculty

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Prerequisites/Corequisites

None

Recommended Prerequisite: EDEP 592 - may be taken concurrently.

University Catalog Course Description

Focusing on the development of knowledge and skills related to analyzing and interpreting educational assessment data. Offered by Graduate School of Education. May not be repeated for credit.

Course Overview

The course will provide an in-depth coverage of connecting data use to instructional and learning improvement. The main focus is on integrating DDDM inquiry with professional knowledge and competencies related to content knowledge, pedagogical content knowledge, and teachers' dispositions. Content will cover framing appropriate questions to identify and organize data sources and the process of inquiry; engaging in sense making with simulated datasets and scenarios to provide technical skills and orientation toward focused data analysis; interpreting findings from inquiry; communicating findings to students, teams, administrators, and parents; the importance of evaluating action plans and outcomes for continuous improvement; critical reflection of facilitators and barriers (in relation to professional knowledge/ competencies) to implement instructional actions based on data and identifying resources and support for the same.

Though the delivery method is entirely online, it should take you the same amount of time as other 3-credit courses. You should **expect to spend an *average* of 8 to 10 hours on coursework for each class session** (this includes the time you would have spent in a classroom).

Course Delivery Method

This course will be delivered online (100%) using an asynchronous format via Blackboard Learning Management system (LMS) housed in the MyMason portal. You will log in to the Blackboard (Bb) course site using your Mason email name (everything before @masonlive.gmu.edu) and email password. The course site will be available on January 25th, 2019.

Under no circumstances, may candidates/students participate in online class sessions (either by phone or Internet) while operating motor vehicles. Further, as expected in a face-to-face class meeting, such online participation requires undivided attention to course content and communication.

Technical Requirements

To participate in this course, students will need to satisfy the following technical requirements:

- High-speed Internet access with standard up-to-date browsers. To get a list of Blackboard's supported browsers see: https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support#supported-browsers
  To get a list of supported operation systems on different devices see: https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support#tested-devices-and-operating-systems
- Students must maintain consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course.
- Students may be asked to create logins and passwords on supplemental websites and/or to download trial software to their computer or tablet as part of course requirements.
- The following software plug-ins for PCs and Macs, respectively, are available for free download:
  - Adobe Acrobat Reader: https://get.adobe.com/reader/
  - Windows Media Player: https://support.microsoft.com/en-us/help/14209/get-windows-media-player
  - Apple Quick Time Player: www.apple.com/quicktime/download/

Expectations

- Course Week: Because asynchronous courses do not have a "fixed" meeting day, our week will start on Fridays, and finish on Thursdays at midnight.
- Log-in Frequency:

Students must actively check the course Blackboard site and their GMU email for communications from the instructor, class discussions, and/or access to course materials at least three times per week.

- Participation:
  Students are expected to actively engage in all course activities throughout the semester, which includes viewing all course materials, completing course activities and assignments, and participating in course discussions and group interactions.
- Technical Competence:
  Students are expected to demonstrate competence in the use of all course technology. Students who are struggling with technical components of the course are expected to seek assistance from the instructor and/or College or University technical services.
- Technical Issues:
  Students should anticipate some technical difficulties during the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.
- Workload:
  Please be aware that this course is **not** self-paced. Students are expected to meet *specific deadlines* and *due dates* listed in the **Class Schedule** section of this syllabus. It is the student's responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.
- Instructor Support:
  Students may schedule a one-on-one meeting to discuss course requirements, content or other course-related issues. These meetings will be conducted via telephone or web conference. Students should email the instructor to schedule a one-on-one session, including their preferred meeting method and suggested dates/times.
- Netiquette:
  The course environment is a collaborative space. Experience shows that even an innocent remark typed in the online environment can be misconstrued. Students must always re-read their responses carefully before posting them, so as others do not consider them as personal offenses. *Be positive in your approach with others and diplomatic in selecting your words*. Remember that you are not competing with classmates, but sharing information and learning from others. All faculty are similarly expected to be respectful in all communications. *(please see the online collaboration document we will add to as a class in Week 1)*
- Accommodations:
  Online learners who require effective accommodations to insure accessibility must be registered with George Mason University Disability Services.

Learner Outcomes or Objectives

This course forms a foundation for educators to focus on analyzing and interpreting educational assessment data to make decisions in the context of current school reform initiatives (and policies) at the federal, state and local levels. Students should have deep knowledge of potential data sources and existing data in their districts or through their jobs.

As a result of this course, the educators will be able to:

- Understand the components of data-driven decision-making
- Understand and explain the differences between the conceptual frameworks underlying classroom and system level assessment data and what constitutes a valid inference from different levels and kinds of data
- Understand the connections between the data and how to interpret, explain, and use classroom, school, or system level data to make changes to teaching and or educational programs
- Relate the concepts of reliability and validity of assessment data to inferences drawn from the data and the use of appropriate analyses
- Identify and report on formative and summative assessments in published research (such as articles, monographs, reports, etc.)
- Use various data analysis techniques that are appropriate for the desired inferences and the available data
- Analyze assessment data using appropriate computer programs (e.g., EXCEL)
- Make data-driven decisions related to multiple education topics, such as instructional strategies, grading practices, or student affective constructs
- Disaggregate data to draw conclusions about sub-populations to determine how best to serve various student needs
- Explain critical issues related to the role of the analysis and interpretation of assessment data as related to social justice, collaboration, ethical leadership, innovation, and research-based practice.

Professional Standards

The goal of the course is to facilitate each educator's reaching a level high of competence and professional-level understanding of assessment design practices used in making decisions related to continuous improvement in student learning. Learner outcomes are consistent with the Educational Psychology Program standards. The standards, as expressed as learner outcomes 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.

Student Outcomes & Relationship to Professional Standards

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. Recognize the implications of educational assessments for social justice in schools.
5. Discern critical issues related to the role of the design of assessments for school accountability and high stakes testing.

Required Texts

Brookhart, S. M.(2016). *How to make decisions with different kinds of student assessment data*. Alexandria, VA: ASCD.

Holcomb, E. L. (2017). Getting more excited about using data(3rd Ed.). Thousand Oaks, CA: Corwin

Love, N., Stiles, K. E., Mundry, S., & DiRanna, K. (2008).). *The data coach's guide to improving learning for all students*. Thousand Oaks, CA: Corwin Press.

*CD's materials for this book can also be accessed using the following link, but you will need the book to respond to the access questions: https://studysites.corwin.com/datacoach/

Supplementary Texts

Selected readings will be assigned for the course and made available on Blackboard.

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, Tk20, hard copy). Late assignments will not be accepted without prior instructor approval. An excused late submission will at best receive a grade of B (in points) for that assignment.

- **Assignments and/or Examinations**

  - **Class Participation (112 points-14 classes; 8 points per class)** Students are expected to participate in online discussion boards and workshops in a meaningful way. Assigned readings are to be completed. Active contribution means you post in specified discussion boards and respond to classmates' posts meaningfully. Your original post is due by Mondays at11: 59 p.m. Each student is to respond to each of the original posts by Thursdays at11:59 p.m. I encourage you to respond to other posts early so dialogue can occur between the class. Participation also includes workshops when appropriate based

on topics (please see the weekly details below for specific workshop weeks). Please review *Netiquette* in preparation for this class.

- **Module 1 Assignment- Reflection Paper (38 points)**. Students will prepare a 4 – 6 page (double-spaced, 1 inch margins, APA style 6th edition) reflection on their understanding on inquiry approaches to DDDM. The paper will use appropriate research in the literature, including reading assignments throughout the course, to develop a reflective essay addressing the following:
    - What is your stance towards using data to inform decisions?
    - What inquiry approach best aligns to your teaching or administrative style or use of data? Why?
    - Why do you believe that the collaborative inquiry approach is used often in DDDM?

- **Module 2 Assignment- Data Coach Toolkit (60 points).** Students will prepare a data coaching toolkit using the resources used in class as well as research of their own to train on the four types of data learned to interpret in this course:
    - Develop an introduction that provides information on how the toolkit will be used (all supported using literature and in APA style 6th edition) This section should also address which of the *SLDS Data Use Standards Knowledge, Skills, and Professional Behaviors for Effective Data Use* are addressed in your toolkit.(10 pts)
    - Provide a summary of the types of data (8 pts)
    - A mini-lesson on how to interpret this type of data (16 points)
    - Develop an activity to use with a set of teachers (16 pts)

  A template will be provided to help you start but you should customize so it is a resource you would use. Throughout Module 2 you will provide drafts to your peers who will provide feedback for you to consider as you develop your toolkit. This will be done via videos posted of your materials and then a video response posted by your peers.

  I will provide a specific rubric and a video overview at the beginning of Module 2. We will review the rubric during Week 4 to see if there are an initial questions.

- **Module 3 Assignment- DDDM Scenario Paper (40 points)** Students will read a scenario (Driven by data, Bambrick-Santoyo, 2010) and respond to four case study questions. Responses should by 1-2 pages double spaced, APA style 6th edition, and use appropriate research in the literature, including reading assignments throughout the course, specifically the framework that aligns to the perspective on the case study should be reference, to present the relevant research and discuss the implications on practices.

Note: More detailed descriptions of assignments and rubrics for any Performance-Based Assessment are included at the end of the syllabus.

Grading

There are 250 total points for the course distributed among the four assignments listed above.

Grading scale:

A+ = 245-250 points
A = 232-244 points
A- = 225-231 points
B+ = 220-224 points
B = 207-219 points
B- = 200-206 points
C = 175-199 points
F = 174 or fewer points

The grade of A is awarded for excellence, the best work in the class. An A student turns in all work on time with consistently very high standards of quality, effort, and creativity. This person produces outstanding products, shows excellent growth, and preforms exceptionally in presentations and critiques.

The grade of B is awarded to students who have turned in all work on time and consistently completed work of high quality. The work shows creative thinking, extra effort, and care in presentation. This person has demonstrated knowledge that surpasses the basic material and skills required by the course.

The grade of C is earned when all class work is turned in and the student has mastered the basic material and skills of the course. The person participated in class and demonstrated knowledge of the basic material and skills required by this course. This is the average grade in the class.

Professional Dispositions
See https://cehd.gmu.edu/students/polices-procedures/

Class Schedule

Weeks	Topic	Readings/Multimedia	Activities/Assignments Due
Module 1: Inquiry based approaches to DDDM			
Week 1: 1/25-1/31	Welcome video Syllabus Overview Module 1 Overview Meet-and- greet	Holcomb (2017) Ch. 1 Mandinach & Gummer (2016) Ch. 6 Marsh, Pane, & Hamilton (2006- Rand)	Blackboard Discussion Board 1: Ice Breaker
Week 2: 2/1-2/7	Overview of Inquiry-Based Approaches APA overview/tutorial	Holcomb (2017) Ch. 2 & 3	Blackboard Discussion Board 2: Getting Started

Week 3: 2/8-2/14	The role of Collaborative Inquiry in DDDM	Collaborative inquiry and data-based decision making / Douglas Huffman and Kelli Thomas (e-reserve) Love, Stiles, Mundry, & DiRanna (2008) Ch. 1 & 2	Blackboard Discussion Board 3: Inquiry approaches with a focus on collaborative inquiry
Module 2: Data Interpretation in Education			
Week 4: 2/15-2/21	Module 2 Overview Different Types of Data & What it means to interpret data	Brookhart (2016) Ch. 1 Holcomb (2017) Ch. 5 SLDS Data Use Standards Knowledge, Skills, and Professional Behaviors for Effective Data Use	Blackboard Discussion Board 4: Types of data **Module 1 Assignment Due by 2/21 at 11:59 p.m.:** *Reflection Paper on Inquiry*
Week 5: 2/22-2/28	Accountability Assessments: Aggregate & Disaggregate level analysis	Brookhart (2016) Ch. 2 Love, Stiles, Mundry, & DiRanna (2008) Ch. 4 - *only tasks 6 & 7*	Blackboard Discussion Board 5: Aggregate & Disaggregate level analysis Workshop: Data Analysis of accountability assessments
Week 6: 3/1-3/7	Accountability Assessments: Strand & Item level analysis	Love, Stiles, Mundry, & DiRanna (2008) Ch. 4 - *only tasks 8 & 9*	Blackboard Discussion Board 6: Strand & Item level analysis Workshop: Data Analysis of accountability assessments
3/8-3/14	*Spring Break*		
Week 7: 3/15- 3/21	Benchmark Assessments & Common Formative Assessments	Brookhart (2016) Ch. 3	Blackboard Discussion Board 7: Benchmark Assessments & Common Formative Assessments

			Workshop: Data Analysis of benchmark assessments Peer-Feedback/Collaborative Activity- Share draft of lesson and activity on accountability data
Week 8: 3/22-3/28	Classroom Grades	Brookhart (2016) Ch. 4 Love, Stiles, Mundry, & DiRanna (2008) Ch. 4 - *only task 10*	Blackboard Discussion Board 8: Classroom Grades Workshop: Data Analysis of classroom grades Peer-Feedback/Collaborative Activity- Share draft of lesson and activity on Benchmark Assessments & Common Formative Assessments
Week 9: 3/29-4/4	Classroom Formative Assessment Strategies	Brookhart (2016) Ch. 5	Blackboard Discussion Board 9: Classroom Formative Assessment Strategies Workshop: Data Analysis of classroom formative assessment strategies Peer-Feedback/Collaborative Activity- Share draft of lesson and activity on classroom grades
Week 10: 4/5-4/11	Creating effective data visualizations for interpretation	Holcomb (2017) Ch. 6	Blackboard Discussion Board 10: Effective data visualizations

			Workshop: Creating effective data visualizations Peer-Feedback/Collaborative Activity- Share draft of lesson and activity on Classroom Formative Assessment
Module 3: Taking Action as Teachers and Leaders: Communicating data to students, teams, administrators, policymakers, and parents			
Week 11: 4/12-4/18	Basing decisions on data and understanding the implications for social justice	Brookhart (2016) Ch. 6 & 7 Holcomb (2017) Ch. 4 & 7	Blackboard Discussion Board 11: Basing decisions on data, Part 1 **Module 2 Assignment Plan Due by 4/18 by 11:59 p.m.**: Data Coaching Toolkit
Week 12: 4/19-4/25	Basing decisions on data	Bambrick-Santoyo (2010) Ch. 3 Watch: The Data-Informed District: Research on How Educators Use Data to Inform Practice (Webinar)	Blackboard Discussion Board 12: Basing decisions on data, Part 2 Workshop: Scenario Review
Week 13: 4/26-5/2	Ethical Considerations	Legal dimensions of using employee and student data to make decisions / R. Lance Potter and Jacqueline A. Stefkovich (e-reserve) Ethics based decision making by educational leaders/ P.T. Begley (e-reserve)	Blackboard Discussion Board 13: Ethical Considerations Workshop: Ethical Scenario
Week 14: 5/3-5/9	Review and Wrap Up	Brookhart (2016) Ch. 8	Blackboard Discussion Board 14: Course reflection

			Module 3 Due 5/12 by 11:59 p.m.: *DDDM Scenario Essays*

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

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 https://ds.gmu.edu/).
- Students must silence all sound emitting devices 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://coursessupport.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/ .

Rubric: Class Participation

Student participation is imperative to student learning and a successful class. The following rubric outlines how student participation scores will be determined in this course. All students are expected to demonstrate specific characteristics and actions throughout the semester. The quality and quantity of these actions will determine the points assigned for participation.

Students are expected to:

a) Be well prepared for class by completing assigned readings.
b) Participate fully in class activities and assignments – take an active part in small and large group online discussions (without dominating the conversations).
c) Discussion Board: Make insightful comments, which are informed by required readings and demonstrate reflection on those readings. Specifically, students should come to the asynchronous class with questions, comments, and thoughts on the current readings.
d) Treat class activities, group discussions, and class discussions as important components of the course, showing respect for fellow classmates and the course material.

Each of these criteria will be assessed on a 5-point scale.

8 = Student ***consistently*** demonstrated the criterion throughout the lesson.
6 = Student ***frequently*** demonstrated the criterion throughout the lesson.
4 = Student ***intermittently*** demonstrated the criterion throughout the lesson.
2 = Student ***rarely*** demonstrated the criterion throughout the lesson.
0 = Student ***did not*** demonstrate the criterion throughout the lesson.

The participation grade will be calculated as the sum of points for each criterion.

Rubric: DDDM Scenario Essays

Students will read a scenario from *Driven by data* (Bambrick-Santoyo, 2010) and respond to four essay response questions.

The following rubric outlines how student responses to each question will be graded.

Criteria	Outstanding (10)	Competent (7-9)	Minimal (3-6)	Unsatisfactory (1-2)
Response to case study questions	Description is thorough and insightful; makes explicit connections to the case study; reflection is thorough and demonstrates ability to incorporate readings from throughout the semester.	Description is thorough; makes explicit connections to the case study; reflection demonstrates understanding of readings from throughout the semester.	Description is general; connections to the case study is unclear or lacks examples; reflection demonstrates understanding of the readings from throughout the semester.	Description is incomplete or missing
APA Style *Use APA style and formatting*	Uses concise, coherent, well-organized writing with correct APA style.	Writes with some lack of clarity and/or inconsistent APA style with some errors.	Writes with a lack of clarity and coherence, many errors, or incorrect APA style.	Writes with little clarity or coherence, many errors, and/or no use of APA style.

The case study grade will be calculated as the sum of points for each response.