



Assessing Effectiveness of Multimedia Teaching Cases

Dr. Jodi Sandfort

Associate Professor & Chair of Management & Leadership
Humphrey School of Public Affairs



Teaching Cases: A “Signature” Pedagogy

"Professional education is not education for understanding alone; it is preparation for accomplished and responsible practice in the service of others. It is preparation for 'good work.'

Professionals must learn abundant amounts of theory and vast bodies of knowledge. They must come to understand in order to act, and they must act in order to serve."

(Shulman 2005: 53)





Field Test #1: Research Approach

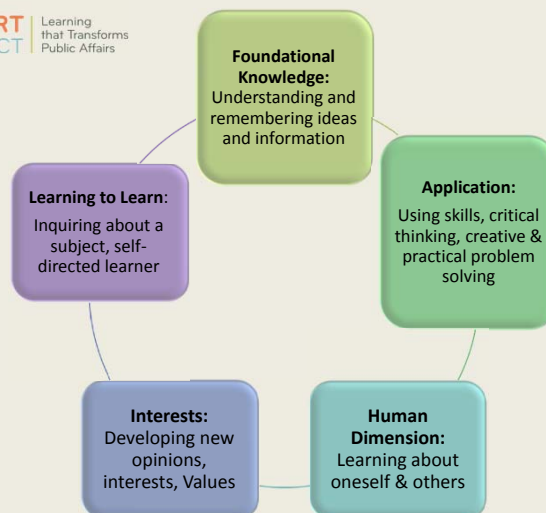
How does learning through the use of a e-case compare to that of traditional written cases in public affairs classrooms?

Quasi-experimental Design:


- Survey (closed- and open-ended), administered after exposure to e-Case and tradition case
- n=183 undergraduate (4 course sections) & graduate (4 sections)



Learning Outcomes




Modification of Fink (2003)




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Intervention: e-Case Study

- Small nonprofit working on concrete benefit to low-income families
- Leadership in Cross-Sector Environment
- Management in Developing new Innovation
 - Three year pilot program
- Learning objectives:
 - Content (policy, nonprofit roles)
 - Define and analyze complex problem
 - Analyze their own decision making in these settings.



AccountAbility Minnesota
tax & financial services for those in need




HUBERT H. HUMPHREY  INSTITUTE OF PUBLIC AFFAIRS


Making Work Pay!

Improving Implementation of the Earned Income Tax Credit at AccountAbility Minnesota

<p style="text-align: center;">Module 1: Policy and Problem</p> <p>Explore information about the significance of tax credits as a tool of social policy which compensates for the low-wages received by many workers. Consider how policy intent is subverted through 'refund anticipation loans' developed by national tax preparers.</p>	<p style="text-align: center;">Module 2: AccountAbility Minnesota</p> <p>Examine a small nonprofit providing free tax preparation to low-income citizens and consider potential avenues for expansion of their services.</p>	<p style="text-align: center;">Module 3: Leadership Decisions</p> <p>From the perspective of the leader of AccountAbility Minnesota, consider a range of options and make decisions about how to best steward the organization during a time of change.</p>	<p style="text-align: center;">Module 4: Implementation Decisions</p> <p>From the perspective of the leader of AccountAbility Minnesota, weigh a number of decisions necessary to implement strategies decided.</p>
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The Earned Income Tax Credit



Stacey's tax refund was half of her total income for 2004. She used most of her refund to pay bills, but will be participating in financial education and homebuyer education courses to plan for her family's future.

- Workers disadvantaged in tax code benefit from this type of redistribution
- Reduces disparities in current tax policy by lowering effective tax rate significantly
- Considerable enhancement to earnings
- Potential to respond to emergencies and save with additional money received
- Particularly effective at enhancing some groups transitions out of poverty

Toolbox

Resources

- National Research Overview of EITC Usage
- EITC Estimator

New resources

- EITC pamphlet
- Scholarly Research
- Success Stories
- 'Keeping What They've Earned' report
- Eligibility and Benefits Graph
- EITC/AFDC Trends Graph

Notes

Write down your notes.

Previous Next




Table 1. Summary Statistics: Demographic Characteristics, (Fall 2009)

	PA 4101~	PA 5011
Sex (Female = 1)	0.68 (0.47)	0.61 (0.49)
Age (Years)	23.15 (5.10)	26.69 (3.03)
Ethnicity (White = 1)	0.86 (0.35)	0.80 (0.40)
Experience	1.96 (1.31)	2.21 (0.90)
Familiarity	3.03 (0.96)	2.87 (0.82)
N	78	105

NOTE: Cell entries are means with standard deviations in parentheses.



Table 2. Categorical Distribution of Tests of Pooled Survey Items by Theoretical Dimensions (Fall 2009)

	Paper > Digital	No Difference	Digital > Paper
Foundational Knowledge	0.0%	25.0%	75.0%
Application and Integration	50.0%	50.0%	0.0%
Human Dimensions	33.3%	33.3%	33.3%
Increased Interest	40.0%	20.0%	40.0%
Learning How to Learn	0.0%	100.0%	0.0%
TOTAL	26.1%	39.1%	34.8%



The purpose of the Hubert Project is to connect public affairs educators through the creation and exchange of engaging teaching materials that enhance learning.

<http://www.hubertproject.org>



Relevant Lessons: Scholarship Teaching & Learning

Comparison of traditional, blended, and online course outcomes.

Design-based research

- Learning materials
 - Relevant knowledge through realistic accounts
 - Structure
 - Media
 - Content Design & Scaffolding
- Interactions
 - Social
 - Incentives
 - Time



Module 1: Background & Context

Policy, Problem & Organizational Response



This module will provide you with the background information needed for making informed leadership decisions in this simulation. First, learn about the significance of tax credits as a tool of social policy and consider how policy intent is subverted through refund anticipation loans developed by national tax preparers. In addition, you will learn about a small nonprofit providing free tax preparation to low-income citizens in Minnesota and its initial response to these changing realities.

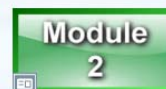
After reading through this






Policy and Problem



Organizational Response







Preliminary Program Development

In developing an alternative RAL product as the Executive Director of AAM, you have more questions than answers. Before taking any additional steps, you decide to conduct a preliminary analysis to understand the potential program components, partners, and challenges that lie ahead. Only through understanding the scope of this emerging initiative can you take concrete steps in creating this program.

Click on a circle to explore different facets of program development for an alternative RAL product.


Learning that Transforms Public Affairs

Field Test #2: Research Approach

How does learning through the use of a e-case compare to that of traditional written cases in public affairs classrooms?

Quasi-experimental Design with nonequivalent control group:

- Survey (closed- and open-ended)
- Graduate students in three classes, each with distinct 'treatments' n= 60
 1. Traditional paper case
 2. Blended: Traditional (module 1) *and* E-Case
 3. E-Case
- Established faculty with facilitative styles, constant incentives & time



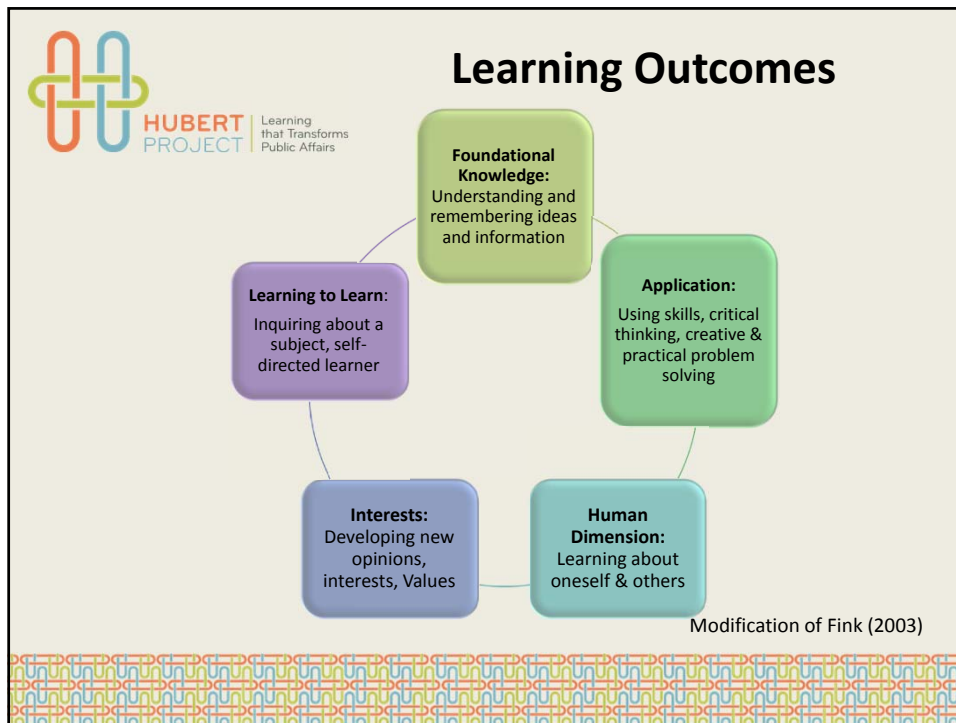


Table 3. Summary Statistics: Demographic Characteristics, (Fall 2011)

	Paper	Blended	E-Case
Sex (Female = 1)	0.47 (0.51)	0.77 (0.43)	0.37 (0.50)
Age (Years)	27.63 (4.67)	26.43 (4.43)	28.26 (3.56)
Ethnicity (White = 1)	0.74 (0.45)	0.73 (0.46)	0.58 (0.51)
Experience	2.47 (1.12)	2.36 (0.90)	2.95 (1.08)
Familiarity	2.11 (0.81)	2.41 (0.85)	2.32 (0.95)
N	19	22	19

NOTE: Cell entries are means with standard deviations in parentheses.


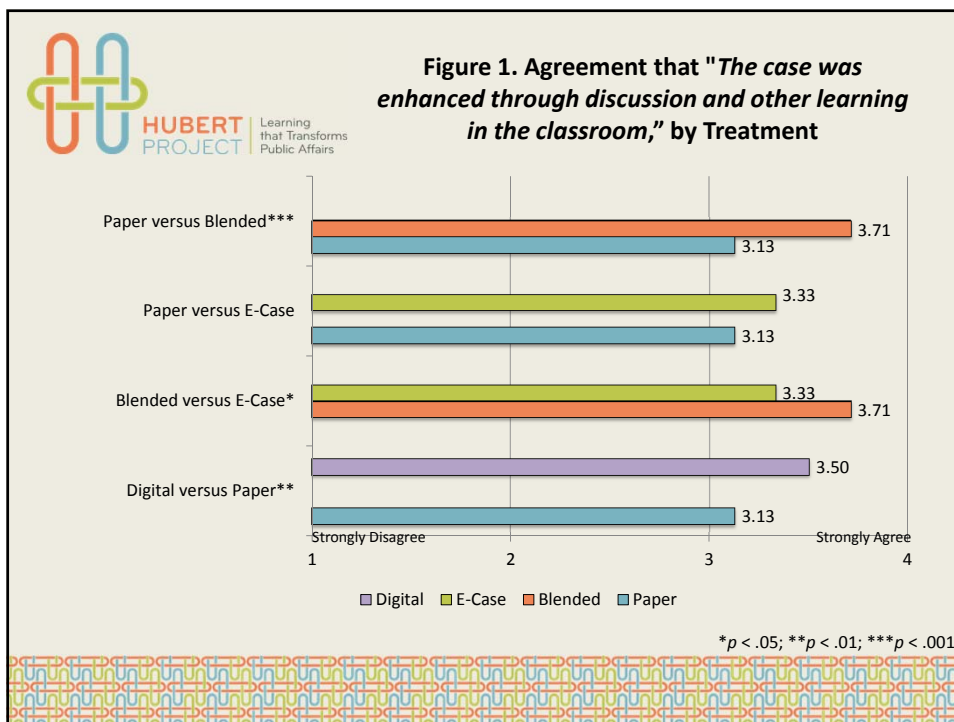



Table 4. Categorical Distribution of Tests of Pooled Survey Items by Theoretical Dimensions (Fall 2011)


	Paper > Digital	Paper = Digital	Paper < Digital
Foundational Knowledge	0.0%	100.0%	0.0%
Application and Integration	0.0%	100.0%	0.0%
Human Dimensions	0.0%	100.0%	0.0%
Increased Interest	0.0%	100.0%	0.0%
Learning How to Learn	0.0%	75.0%	25.0%
TOTAL	0.0%	97.2%	2.8%



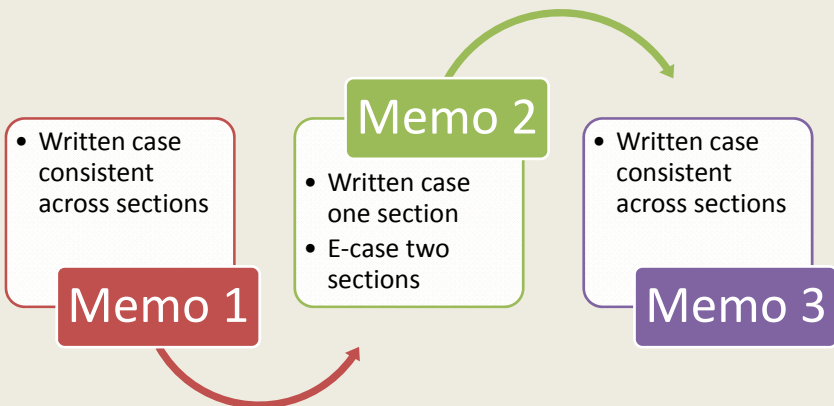


Alternative Models & Outcomes

- New predictors
 - Standardized tests as measures of aptitude
 - More complete demographic data
- Alternative Outcomes
 - Assignment grades
 - Course grades
 - Professional competency development (not supported by current research design)



Assignments



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graph LR
    M1[Memo 1] --> M2[Memo 2]
    M2 --> M3[Memo 3]
  
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- Written case consistent across sections


Memo 1

- Written case one section
- E-case two sections

Memo 2

- Written case consistent across sections

Memo 3

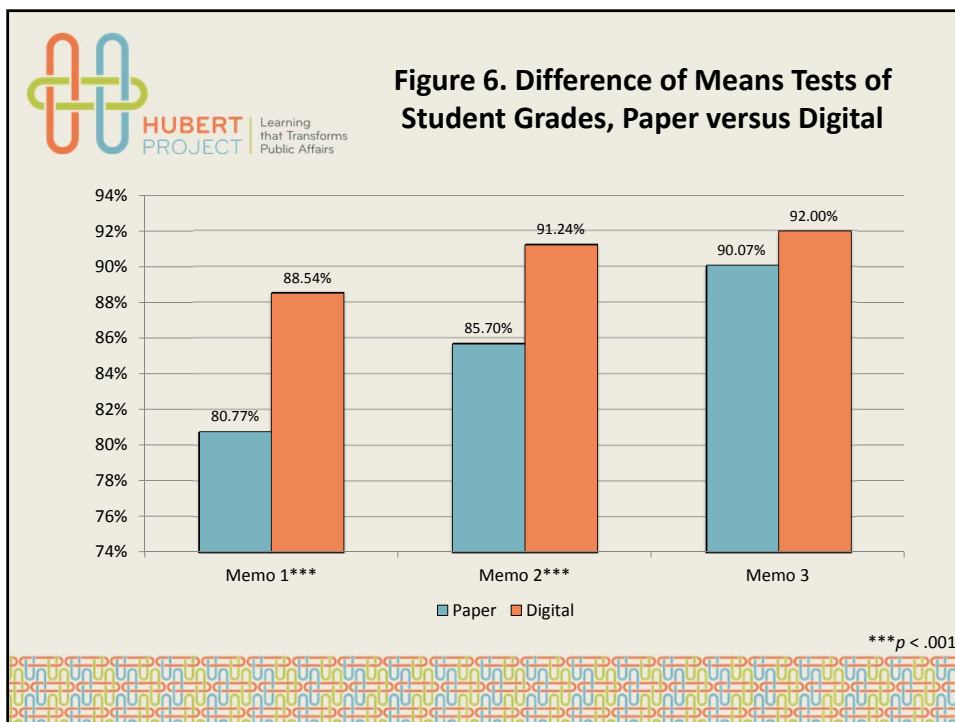


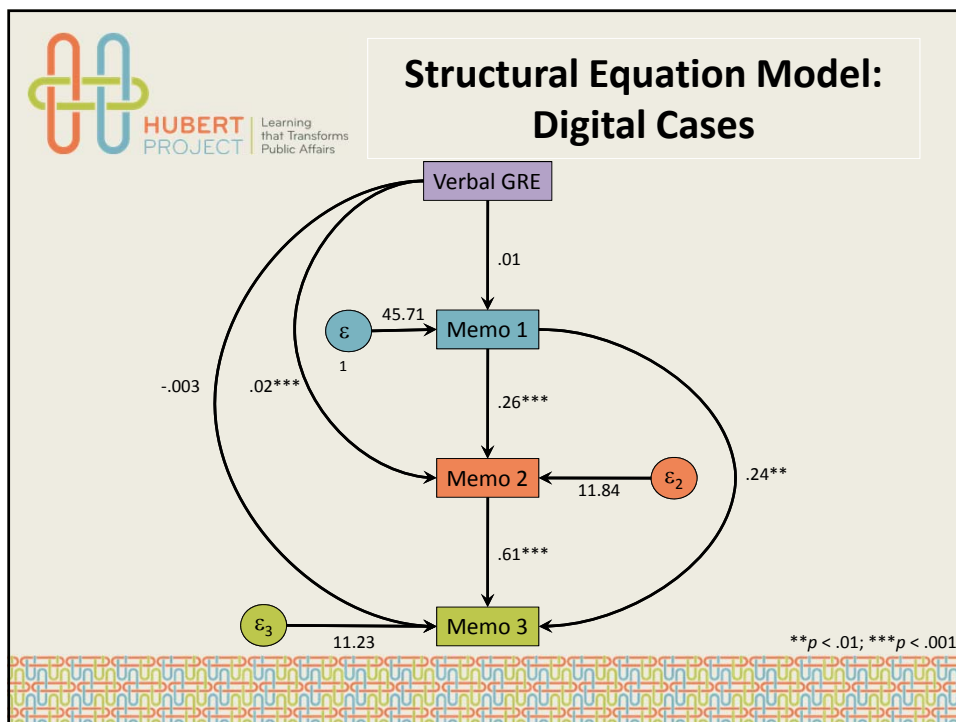
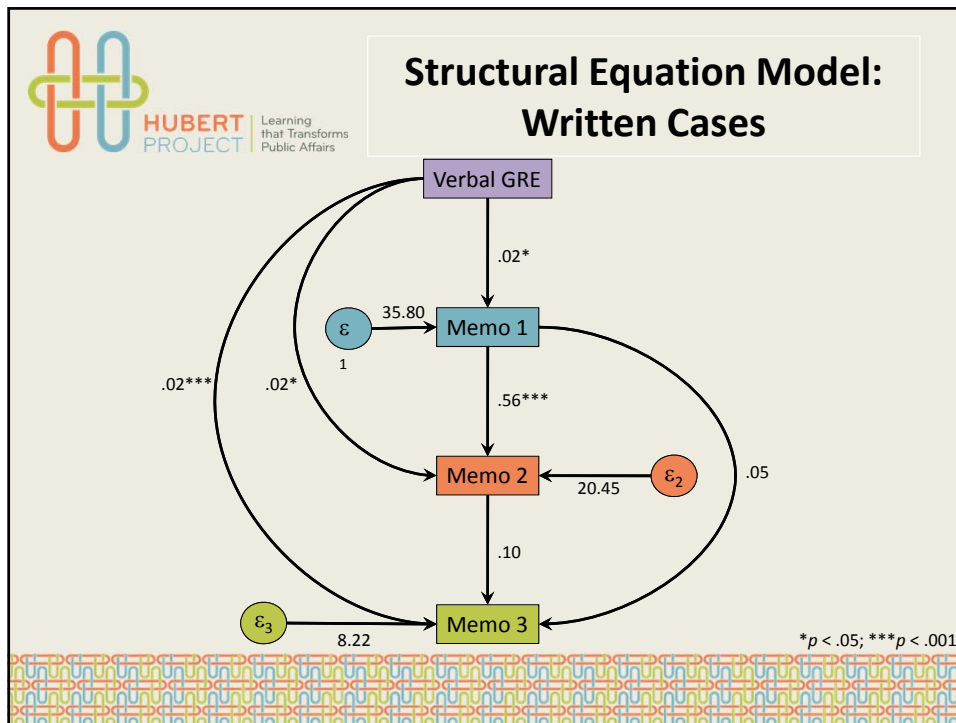
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Table 5. Difference of Means for All Contrast Combinations, (Scheffé)

	Paper versus Blended	Paper versus E-Case	Blended versus E-Case
Memo 1	10.18*** (2.05)	6.46** (1.74)	-3.72 (1.99)
Memo 2	5.46* (1.79)	5.59** (1.52)	0.13 (1.74)
Memo 3	2.88 (1.49)	1.42 (1.26)	-1.46 (1.45)
Final Grade	1.37 (0.97)	2.23* (0.82)	0.86 (0.94)

NOTE: Cell entries are contrast differences with standard errors in parentheses.
*p < .05; **p < .01; ***p < .001









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Implications: Next Steps


- Alternative theoretical specification of expected learning outcomes
 - Connect more recent developments in scholarship of teaching and learning
- Continue to develop digital learning materials
 - 13 e-cases completed; another 12 under active development
- Alternative research designs across many courses
 - National Science Foundation pending grant proposal

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Relevant Lessons: Scholarship Teaching & Learning

- Instructor Practice rather than mechanisms of course delivery (Bernard, et al 2009; Means et al 2009; Tamin et al 2011)
- Social Dimensions of Learning
 - Faculty
 - Students
- Outcomes: Learning Analytics
 - Professional competencies





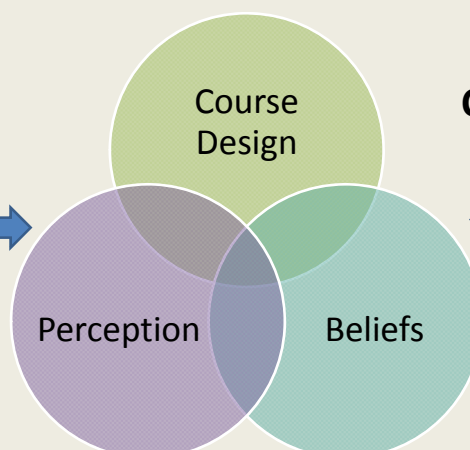
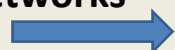
New Research Questions

- *How do instructors use multimedia learning materials in their classrooms? What mediates this use and how does their teaching practice change over time?*
- *How does exposure to these learning materials and teaching processes influence students' development of necessary professional competencies?*

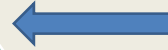


Teaching Practice

Personal Learning Networks



Communities of Practice





Methodological Approach

- Instructors who register as Hubert project users, Year 1 (November 2012- October 2013)
 - Random sample n=50
 - Focal course, n=1000 each trial
- Repeated semi-structured interviews and surveys
- Observations over three phases.



Methodological Approach

- Instructor Assessment
 - Motivation, curiosity and course plans
 - Validated survey of attitudes, skills, values & behavior regarding cyberlearning
 - Reflection on practice
- Student Surveys: Professional Competencies
 - Iterative development of instrumentation
 - One focal course
 - Framework aligned with accreditation standards



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DISCUSSION



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SUPPLEMENTAL DATA TABLES



