

Evidence-Based Management (GENERIC SYLLABUS)

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Contemporary managers are heavily swayed in their thinking and decisions by habit, fads, convention and unrealistic levels of confidence (March, 2010; Pfeffer & Sutton, 2006). Managers practicing EBMgt learn how to rethink their approaches to data and knowledge in order to make more effective decisions. EBMgt means making decisions based on best available evidence with special emphasis on relevant scientific findings and unbiased organizational facts. It involves active use of decision practices that reduce bias and judgment errors and give due consideration to ethical concerns. This course promotes your understanding and use of EBMgt principles. It also guides you in developing the skills and knowledge needed to identify, access, and use quality evidence from science and practice in making better decisions.

The instructor is committed to pursuing an evidence-based approach to the course itself. Scientific evidence strongly supports the effectiveness of active participation in learning activities (Ambrose et al., 2010; Armstrong, 2010; Tough, 1971). In this course participation means actively using evidence-based processes and practices.

COURSE TOPICS

- ❖ What It Means to be an Evidence-Based Manager
- ❖ Finding, Interpreting, and Using Scientific Evidence as Managers (and undertaking Critically Appraised Topics or CATs)
- ❖ Acquiring Organizational Facts: Creating Valid Information and Useful Knowledge from Raw Data
- ❖ Decision Awareness: Types of Managerial Decisions and Evidence-Based Processes
- ❖ Building an EBMgt Culture and Change Processes
- ❖ Planning Your On-Going Development as an EBMgr

READINGS

Assigned Articles and Cases: provided on course blackboard.

Supplementary Resources: For our CAT (and your own professional development), I encourage you to become familiar with original sources

of research relevant to management, especially those available electronically through ABIInForm, ProQuest, and Web of Science.

SOME RECOMMENDED BOOKS: If you are serious about practicing evidence-based management, certain book may be especially valuable for your personal library ...

E.A. Locke (ed.) : *The Handbook of Organizational Behavior: Indispensible Knowledge for Evidence-Based Management*. New York: Wiley. 2nd ed. 2009. Our class addresses the process of EBMgt practice, while the Handbook presents the actual findings (content) that pertinent to common organizational decisions.

G. P. Latham: *Becoming an Evidence-Based Manager: How to Put the Science of Management to Work for You*. Boston: Davies-Black. 2009. A practical treatment of evidence-based principles for day-to-day management practice.

D. Kahneman: *Thinking, Fast & Slow*. New York: Farrar, Strauss & Giroux. Explains why rational decision making is inherently difficult. Full of good examples and suggestions for ways to de-bias judgment and decisions.

J.S. Armstrong: *Persuasive Advertising: Evidence-Based Principles*. New York: Palmgrave MacMillan, 2010. Comprehensive treatment of the evidence from advertising, marketing, and social science research—important resource for marketing professionals, consultants, and managers.

R. Cialdini: *Influence: the Psychology of Persuasion*, New York: Collins, 2006. Revised edition. Presents principles of persuasion based on extensive experimental research tied to practical examples.

D.M. Rousseau (ed.): *Oxford Handbook of Evidence-Based Management*. Oxford University Press, 2012. Uptodate chapters on practice, teaching and research implications of EBMgt.

TASKS

I. INDIVIDUAL PROJECTS One-Pagers (N-3)

1. *What's The Evidence?* **Due Class 2**

Check out whether scientific evidence exists for the effectiveness of a popular management practice. We will choose one in class (e.g.,

Balanced Scorecard, 360 feedback, SWOT analysis, McKinsey's 7S model, Porter's 5 Forces, etc.).

- Use EBSCO, ABIinform or Google Scholar synced to a university library e-data bases.
- Search only PEER REVIEWED articles (check that box on the Search page)
- Try to find at least three papers related to the practice.
- Write up a one-page summary of how you searched, the articles you found, and what conclusions you draw from their findings. Be sure to indicate your answer to the question "Is there evidence that the practice or model is likely to be effective or useful?" Tell us how you arrived at this conclusion.

2. *Data challenges in your organization* **Due Class Three**

This exercise is intended to stimulate group discussion and learning over several sessions of our course. Each participant will write a one-pager on the data challenges in your organization. (I will use this information to prepare presentation for class on analytics and on building an EBMgt culture.) These data challenges refer to information needs relevant to making decisions or providing evidence to inform senior management decisions. Data Issues might include, but are not limited to...

- Availability
- Quality
- Validity
- Interpretability
- Etc.

3. *What Work-related Decision Are You Really Proud of?* **Due Class 5**

Think about a decision you made within the past year that you are particularly proud of.

What was the decision?

Why are you proud of it?

How did you go about making it?" (For example, Tell us about the information and sources you used. Was this decision made by yourself alone or with others, the amount of

time it took to make it—from when s/he first considered making this decision until the actual decision was made.)

II. GROUP PROJECT (N=2-3 PEOPLE PER GROUP) *CAT: Critically Appraised Topic Answering a Managerial Question for UPMC with Science-Based Evidence*
Due CLASS 4:

Your group will choose a managerial question related to one of the *UPMC Practical Applications* in the Appendix and gather scientific evidence in order to answer it (E.g, what organizational factors are related to patient readmissions?) Please do so in consultation with the instructor. EXAMPLES of CATS will be shown in class and provided in Blackboard to give guidance.

Your task is to evaluate the relevant, best available management, healthcare and/or social science research to answer your question (3-4 pp.). Sources used should be annotated in an appendix, per examples given in class. (Appendices do not count toward total length of paper.) Cite all sources you relied upon in drawing your conclusions and explain your search strategy for finding them.

I will give your group feedback on how effectively you have marshaled the best evidence. In addition to using an effective search strategy, a quality CAT *integrates* (see Examples in Blackboard) the evidence across studies in table form so you can see the big picture regarding what the evidence supports (or doesn't). In your CAT, you will classify each study you use based on the evidence hierarchy that follows.

EVIDENCE HIERARCHY IN SCIENTIFIC RESEARCH

A+ BEST QUALITY: 1) Meta-analyses of research studies, 2) Systematic reviews of research articles

A HIGH QUALITY: 1) Well-controlled longitudinal field studies, 2) randomized controlled interventions, 3) Multiple quasi-experimental studies

B MODERATE QUALITY: 1) Cross-sectional studies, 2) Controlled case comparisons.

C-D DEPENDS ON USE & STATE OF KNOWLEDGE: Case studies and other descriptive research lack controls to rule out the effects of other co-occurring factors. Their value depends on the content/focus of the study relative to the state of knowledge existing at the time.

Descriptive studies can be valuable in uncovering problems (supports, barriers, context) in implementing organizational practices. In other situations, case and descriptive research can be considered lower quality.

F LOWEST QUALITY (NON-EVIDENCE-BASED): 1) Expert opinion (e.g. WSJ, LHJ) or consultant hype, 2) Non-expert opinion including newspaper articles and other journalistic reports, pop management books (unless adhering to Rousseau's Rule #1), etc. and, 3) Standard, so-called "best" or popular practices.

CLASS SCHEDULE

CLASS #1 WHAT IS Evidence-Based Management?

ADVANCE READING

Rousseau: "Envisioning Evidence-Based Management" (Ch 1
Oxford Handbook)

Kahneman: "Before you make that big decision" Or Excerpt from
Kahneman **Thinking Fast and Slow**

Course Syllabus

TOPICS

Overview Syllabus/Goals

What is EBMgt?

Role of critical thinking in decisions and evidence use

IN-CLASS

Discuss facets of EBMgt and its development

Assessment and Goal Pre-tests

CLASS #2 EVIDENCE QUALITY AND THE SEARCH PROCESS

DUE TODAY: *Individual one-pager #1: What's the Evidence?*

ADVANCE READING

Rousseau & Barends: "Becoming an Evidence-Based HR Manager"

GUEST SPEAKER: University Librarian
(Carnegie Mellon Faculty Librarian- Roye Werner)

TOPICS HOW TO SEARCH AND HOW TO PREPARE A CRITICALLY APPRAISED
TOPIC (CAT)

Data and Research Design Issues
Evidence of Effect vs No Evidence vs Evidence of No Effect

Threats to validity of findings
 Confounding (Unmeasured variables/ External trends)
 Bias (Recall bias, Lead-time and length bias)
Threats to legitimacy of findings
 Publication and reporting bias
 Misrepresentation: Misleading for profit/ Misleading for belief
Searching for Quality Evidence
 How do you assess causality without conducting a true experiment?
 Strength of effects and consistency across studies

IN CLASS TASKS:
Report--What you learned from your first evidence search (What's the
evidence?)

CLASS #3 EVIDENCE QUALITY ...PART DEUX

DUE TODAY: *Individual One-Pager #2: Data Challenges*

ADVANCE READINGS

Zanardelli, "At the intersection of the Academy and Practice at Asbury
Heights" (**Oxford Handbook**)

Excerpts pp. 475-484 from: Rousseau, Manning, Denyer. "Evidence in
Management and Organizational Science: Assembling the field's
full weight of scientific knowledge through reflective reviews."

TOPIC CATs continued

Meta-analyses and Systematic Reviews, Designs for Controlling Bias, and
Interpreting Causality

In-Class: Discussion of Data Challenges

CLASS #4 TURNING ORGANIZATIONAL DATA INTO INFORMATION AND KNOWLEDGE

DUE TODAY: *Group Project Critically Appraised Topic (CAT, present in class)*

ADVANCE READING

Davenport, Harris & Morrison, "Data: the prerequisite for everything analytical"

Davenport: "Make better decisions"

TOPICS

Your CAT process—Will discuss your learnings in class

Business Analytics

Improving Data Quality & Usefulness

Making Decisions Using Organizational Information and Knowledge

IN-Class Videos

Hermione Weichers "CAT on Does Participative Management Increase Organizational Commitment" (CEBMA website)

David Garvin "Learning After Doing"

CLASS #5 DECISIONS, TYPES, PROTOCOLS & ROUTINES

DUE TODAY: *Individual one-pager #3: What Decision Are You Really Proud Of?*

ADVANCE READING

Yates: "Let's Go With It: Decision neglect"

Taleb Excerpts from *The Black Swan The Impact of the Highly Improbable*,

TOPICS

Decision Awareness vs Decision Neglect

Decision Types: Routine, Complicated, Complex

Logic Models and Cardinal Decision Rules

IN-CLASS

Feedback on CAT

Individual Report Outs on Decisions Managers are Proud Of
Checklists and logic models for evidence use in decision making
Decision making (Finklestein's Database of safeguards).

CLASS 6 SUSTAINING THE PRACTICE OF EBMGT

A. BUILDING EBMGT-SUPPORTIVE WORK SETTINGS

TOPIC

Creating an EBMgt Culture

From Management Evidence to Tools and Practices

Decision Supports: Institutionalizing Evidence-Based Practices

Procedures/Protocols/Tools/Artifacts

B. YOUR CAREER AS A PROFESSIONAL EVIDENCE-BASED MANAGER

TOPICS

Charting Your Route Along the Novice-to-Expert Pathway

Developing Expertise over Your Career...

IN-CLASS

Individual Reflections and Report Outs

Post-Tests Assessments of Learning Outcomes

Letter to Self: "Future Me" (available on Future Me website)

To Keep in Touch with News, Issues, and Opportunities in Evidence-Based Management see the Center for Evidence-Based Management website

www.cebma.org/

REFERENCES

Rousseau's rule #1: "Never trust truth claims made without references." This leads directly to the corollary, "Check (at least a sample of) those references."

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