Document Analysis: An Inductive Approach to Establish What End-of-Course Evaluations Measure

Jacqueline Singh, MPP, PhD
Randi Stocker, MLS
Ingrid Ritchie, PhD

Indiana University Purdue University Indianapolis

2011 American Evaluation Association Conference
Anaheim, CA
November 3, 2011

Contact Information

Jacqueline H. Singh, MPP, PhD

Assessment Specialist - Center for Teaching and Learning; Testing Center

jhsingh@iupui.edu or (317-278-6228)

Indiana University Purdue University Indianapolis

755 West Michigan Street

Suite UL1125

Indianapolis, IN 46202

Randi Stocker, MLS

Associate Librarian - IUPUI University Library

rstocker@iupui.edu or (317-274-0494)

Indiana University Purdue University Indianapolis

Ingrid Ritchie, PhD

Professor - Department of Public Health, IU School of Medicine

iritchie@iupui.edu or (317-274-3752)

Indiana University Purdue University Indianapolis

Demonstration Objectives

- Describe the benefits of using document analysis when examining end-of-course evaluation instruments.

- Demonstrate a 7-step approach to using document analysis to examine end-of-course evaluation instruments.

- Discuss the strengths and challenges of using document analysis to examine end-of-course evaluations.

- Discuss the significance of purpose and alignment when designing, revising, or creating end-of-course evaluations.

Approach to Analyzing End-of-Course Evaluation Instruments

Context

Conceptual Framework

Questions to be Investigated

Document Analysis:
  ➢ Content Analysis
  ➢ Open Coding

Alignment Framework

What is document analysis?

Definitions:

- **Document Analysis**
  - "the examination of existing documents for a specified purpose" (Singh, Ritchie, and Stocker, 2009)

- **Document**
  - "written or recorded material not prepared for the evaluation" (National Science Foundation. The 2010 User-Friendly Handbook for Project Evaluation, 2010)

  - "a wide range of written, visual, digital, and physical material relevant to the study at hand . . . Documents include just about anything in existence prior to the research at hand" (Merriam, 2009)

Documents: Strengths & Challenges

Strengths

- Best source of data
- Convenient to use
- Descriptive information
- Historical perspective
- Hypothesis verification
- No / low cost
- Readily available
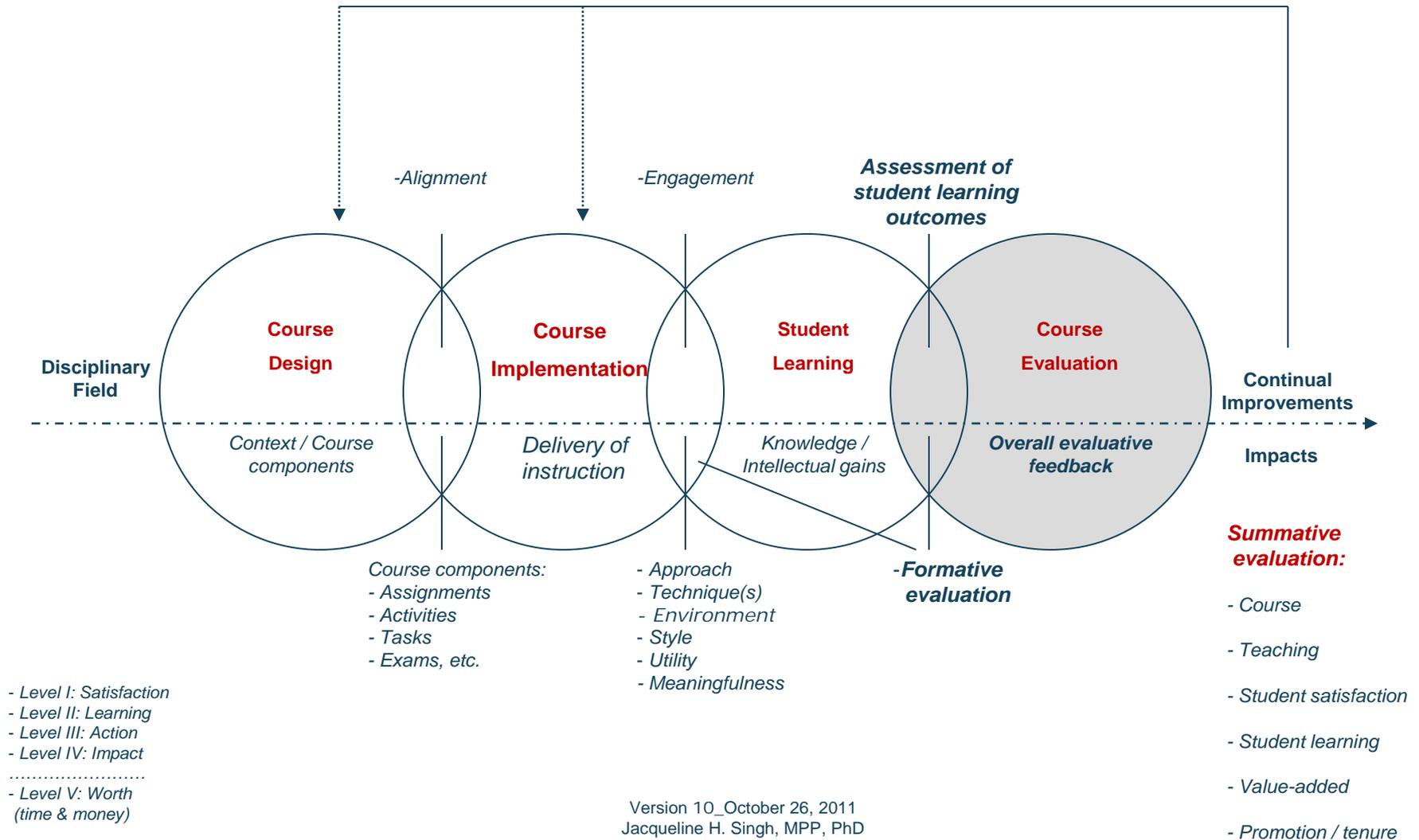- Stable and nonreactive
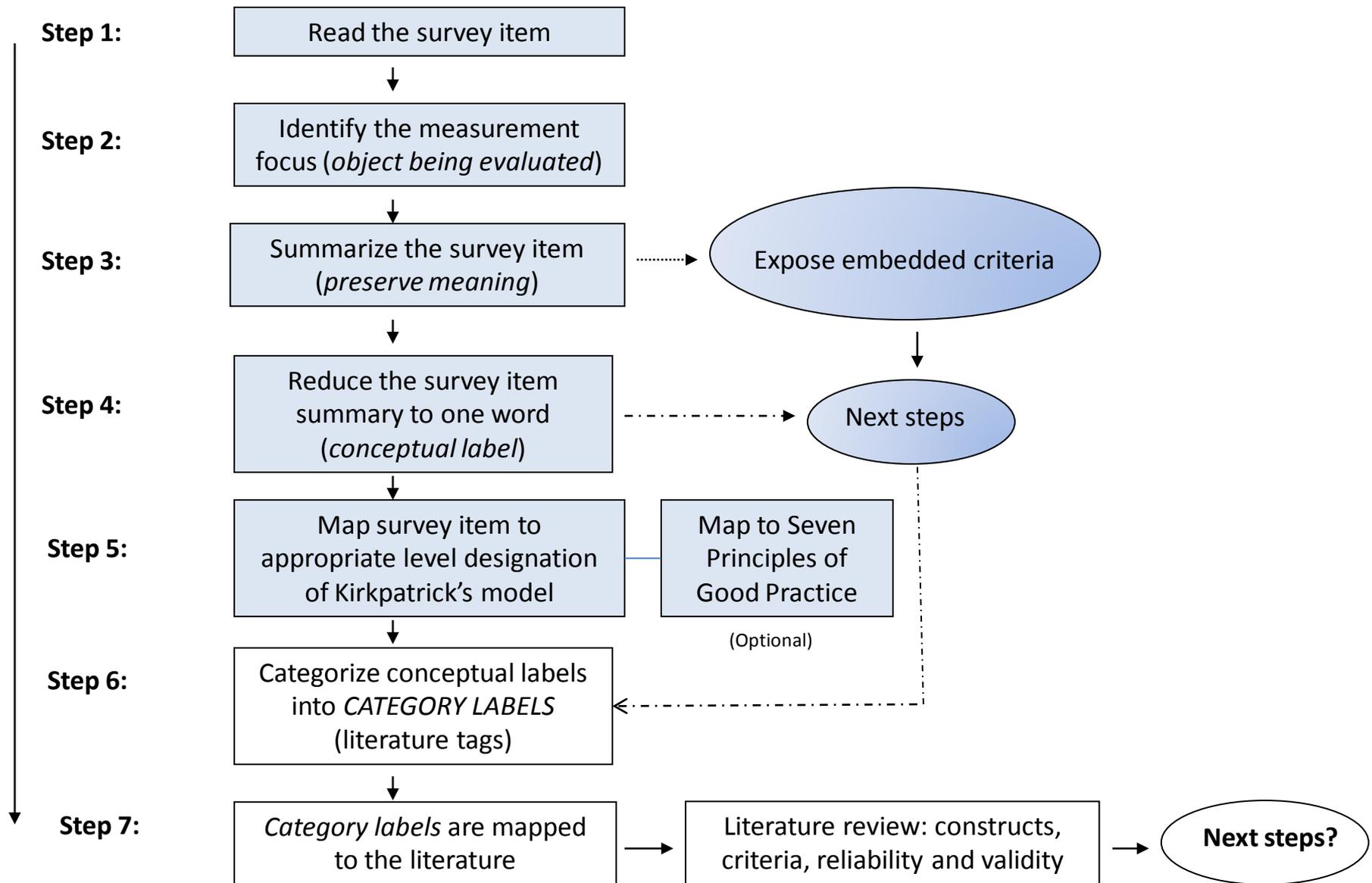- Track changes over time

Challenges

Or may be ...
- Inaccurate
- Misleading
- Out-of-date or incomplete
- Unclear and confusing
- Unrepresentative
- Unusable format

Sources: Caullay (1983), Hurworth (2005), Merriam (2009)

Conceptual Framework:
Essential Components of Course Evaluation

-Alignment

-Engagement

Assessment of student learning outcomes

Disciplinary Field

Course Design

Course Implementation

Student Learning

Course Evaluation

Continual Improvements

Context / Course components

Delivery of instruction

Knowledge / Intellectual gains

Overall evaluative feedback

Impacts

Course components:
- Assignments
- Activities
- Tasks
- Exams, etc.

- Approach
- Technique(s)
- Environment
- Style
- Utility
- Meaningfulness

-*Formative evaluation*

Summative evaluation:

- Course

- Teaching

- Student satisfaction

- Student learning

- Value-added

- Promotion / tenure

- Level I: Satisfaction
- Level II: Learning
- Level III: Action
- Level IV: Impact
....
- Level V: Worth
 (time & money)

Version 10_October 26, 2011
Jacqueline H. Singh, MPP, PhD

7

SURVEY ITEM ANALYSIS STEPS

Step 1: Read the survey item

Step 2: Identify the measurement focus (*object being evaluated*)

Step 3: Summarize the survey item (*preserve meaning*) ·········▶ Expose embedded criteria

Step 4: Reduce the survey item summary to one word (*conceptual label*) ─ · ─ · ─▶ Next steps

Step 5: Map survey item to appropriate level designation of Kirkpatrick's model ── Map to Seven Principles of Good Practice

(Optional)

Step 6: Categorize conceptual labels into *CATEGORY LABELS* (literature tags)

Step 7: *Category labels* are mapped to the literature ──▶ Literature review: constructs, criteria, reliability and validity ──▶ **Next steps?**

Steps 1-2: Determine Measurement Focus

1. **Read the survey item.**

2. **Decide if the item evaluates the course components, instructor's teaching, etc.**

NOTE: There can be more than one measurement focus for a survey item.

Survey Item	Measurement Focus (Evaluand)		
	Course Components	Instructor/ Teaching	Student's Self Assessment
The course concepts were challenging.	X		
The class sessions help me to better understand the material.	X	(X)	(X)
The course has required more of my time and effort than most other courses at the same level.	X		(X)
My instructor was well prepared for class meetings.		X	
My instructor explained the material clearly.		X	

Steps 3-4: Determine the Concept
(Conceptual Label)

3. **Summarize the item into just a few words.**
(Survey Item Summary)

4. **Reduce the Survey Item Summary to 1 key word.**
(Conceptual Label)

Survey Item	Survey Item Summary	Concept (Conceptual Label)
The course concepts were challenging.	Challenging course concepts	Rigor
The class sessions help me to better understand the material.	Help better understand material	Comprehension
The course has required more of my time and effort than most other courses at the same level.	Time/effort expended	Intensity
My instructor was well prepared for class meetings.	Prepared for class meetings	Preparation
My instructor explained the material clearly.	Clear explanation	Explanation

Step 5: Determine Alignment of Survey Items

The Four Levels

Level I: evaluates reaction (satisfaction)

Level II: evaluates learning

Level III: evaluates behavior

Level IV: evaluates results

Summary:

4 of the 5 listed survey items measure a student's reaction to (or satisfaction with) the course (Level I)

1 item attempts to measure learning (Level II)

Survey Item	Survey Item Summary	Concept (Conceptual Label)	Level
The course concepts were challenging.	Challenging course concepts	Rigor	I
The class sessions help me to better understand the material.	Helps better understand material	Comprehension	II
The course has required more of my time and effort than most other courses at the same level.	Time/effort expended	Intensity	I
My instructor was well prepared for class meetings.	Prepared for class meetings	Preparation	I
My instructor explained the material clearly.	Clear explanation	Explanation	I

Step 5: Determine Alignment of Survey Items

The Seven Principles for Good Practice: Explicit, Implicit, or Absent

Survey Item	Survey Item Summary	Concept (Conceptual Label)	Seven Principles for Good Practice		
			Explicit	Implicit	Absent
The course concepts were challenging.	Challenging course concepts	Rigor			X
The class sessions help me to better understand the material.	Helps better understand material	Comprehension			X
The course has required more of my time and effort than most other courses at the same level.	Time/effort expended	Intensity		X (3)	
My instructor was well prepared for class meetings.	Prepared for class meetings	Preparation			x
My instructor explained the material clearly.	Clear explanation	Explanation			x

Example: Alignment Overview

Survey Item	Measurement Focus (Evaluand)			Survey Item Summary	Concept (Conceptual Label)	Level		Seven Principles for Good Practice		
	Course Components	Instructor/ Teaching	Student's Self Assessment			I	II	Explicit	Implicit	Absent
The course concepts were challenging.	X			Challenging course concepts	Rigor	I				X
The class sessions help me to better understand the material.	X	(X)	(X)	Helps better understand material	Comprehension		II			X
The course has required more of my time and effort than most other courses at the same level.	X		(X)	Time/effort expended	Intensity	I			X (3)	
My instructor was well prepared for class meetings.		X		Prepared for class meetings	Preparation	I				x
My instructor explained the material clearly.		X		Clear explanation	Explanation	I				x
TOTAL	3	3	2			4	1	0	1	4

Step 6: Discovering Categories

Survey Item	Measurement Focus (Evaluand)	Survey Item Summary	Concept	Category (Literature Tag)
	Instructor / Teaching			
My instructor explained the material clearly.	X	Clear explanation	Explanation	"Communication"

- **Evaluand:** May apply to any object of an evaluation (e.g. a person, idea, policy, product, object, performance, or any other entity being evaluated)

- **Concept:** Conceptual label placed on discrete happening, event, and other instances of phenomena.

- **Category:** A classification of concepts. This classification is discovered when concepts are compared one against another and appear to pertain to a similar phenomenon. Thus the concepts are grouped together under a higher order, more abstract concept called a category.

Sources: "Evaluand," Encyclopedia of Evaluation, 2005;   "Concepts", "Categories," Strauss & Corbin, 1990

Step 6: Group Concepts into Categories

Survey Item	Survey Item Summary	Concept (Conceptual Label)
The course concepts were challenging.	Challenging course concepts	Rigor
The class sessions help me to better understand the material.	Help better understand material	Comprehension
The course has required more of my time and effort than most other courses at the same level.	Time/effort expended	Intensity
My instructor was well prepared for class meetings.	Prepared for class meetings	Preparation
My instructor explained the material clearly.	Clear explanation	Explanation

Step 6: Group Concepts into Categories

Survey Item Summary	Concept (Conceptual Label)	Category (Literature Tag)
Clarified lecture material	**Clarification**	
Clear communication		
Clear explanation		
Clearly defined and explained assignments		
Clearly defined grading system	**Clarity**	
Clearly written expectations		
Effective communication		
Lab procedures explicitly explained		
Speaking English clearly		
Ability to communicate with others rating	**Communication Rating**	**Communication**
Explicit course objectives		
Explicit expectations of student	**Expectations**	
Explicit student expectations		
Explains difficult material		
Material clearly explained		
Responses help with learning	**Explanation**	
Satisfactory explanation		
Clear explanation		
Clear articulation of course goals	**Explicit**	
Precise answers to questions		
Consistent feedback helps evaluate course progress	**Feedback**	

16

References

Course Evaluation

Abrami, P. C., d'Apollonia, S., & Rosenfield, S. (2007). The dimensionality of student ratings
of instruction: What we know and what we do not. In R. P. Perry and J. C. Smart (Eds.), *The scholarship of teaching and learning in higher education: An evidence-based perspective* (pp. 385-456). Dordrecht, The Netherlands: Springer.

Arreola, R. A (2007). *Developing a comprehensive faculty evaluation system: A guide to designing, building, and operating large-scale faculty evaluation systems* (3rd ed.). Bolton, MA: Anker Publishing.

Berk, R. A. (2006). *Thirteen strategies to measure college teaching: A consumer's guide to rating scale construction, assessment, and decision making for faculty, administrators, and clinicians.* Sterling, VA: Stylus Publishing.

Forsyth, I., Jolliffe, A., & Stevens, D. (1999). *Evaluating a course: Practical strategies for teachers, lecturers and trainers* (2nd ed.). Sterling, VA: Stylus Publishing.

Jackson, D. L., Teal, C. R., Raines, S. J., Nansel, T. R., Force, R. C., & Burdsal, C. A. (1999).
The dimensions of students' perceptions of teaching effectiveness. *Educational and Psychological Measurement*, *59*, 580-596.

Kember, D., & Leung, D. Y. P. (2008, August). Establishing the validity and reliability of
course evaluation questionnaires*. Assessment & Evaluation in Higher Education*, *33*(4), 341-353.

Marsh, H. W. (1982a). SEEQ: A reliable, valid, and useful instrument for collecting students'
evaluations of university teaching. *British Journal of Educational Psychology*, *52*, 77-95.

Marsh, H. W. (2007). Students' evaluations of university teaching: Dimensionality, reliability,
validity, potential biases and usefulness. In R. P. Perry & J. C. Smart (Eds.), *The scholarship of teaching and learning in higher education: An evidence-based perspective* (Chap. 9; 319-383). Dordrecht, The Netherlands: Springer.

Marsh, H. W. (1987). Students' evaluations of university teaching: Research findings,
methodological issues, and directions for future research. *International Journal of Educational Research, 11*, 253-388.

The Four Levels Model / Teaching & Learning

Forsyth, I., Jolliffe, A. & Stevens, D. (1999). *Evaluating a course: Practical strategies for teachers, lecturers, and trainers* (2nd ed.). Sterling, VA: Stylus.

Hill, A. (2007). Continuous curriculum assessment and improvement: A case study. In Wolf, P & Hughes, C. J. (Eds.), *New Directions for Teaching and Learning: No. 112, Curriculum development in higher education: Faculty-driven processes and practices*. (pp. 33-45). Danvers, MA: Wiley Periodicals.

Kirkpatrick, D. L. & Kirkpatrick, J. D. (2006). Evaluating training programs: The four levels (3rd ed.). San Francisco: Berrett-Koehler. Many pages viewable at
http://books.google.com/books?id=niBqj9EKF88C&printsec=frontcover&dq=inauthor:%22Kirkpatrick,+Dona

ld+L.%22&hl=en&ei=HjTPTPi3IoP88AaTotD6AQ&sa=X&oi=book_result&ct=result&resnum=3&ved=0CD
MQ6AewAg

Margolis, D. (2009, November). Don Kirkpatrick: The father of the Four Levels. Chief Learning Officer, 24-27. Text
reprinted at: http://www.clomedia.com/categories/view/50/2

Suskie, L. (2004). *Assessing student learning: A common sense guide* (p.76). San Francisco: Jossey-Bass.

Seven Principles for Good Practice in Undergraduate Education

Chickering, A. W. & Gamson, Z. F. (1987). Seven principles for good practice in undergraduate education. American
Association for Higher Education Bulletin. Text reprinted at:
http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/7princip.htm

Coding Methodology

Miles, M. & Huberman, M. B. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks,
CA: Sage.

Smith, N. L. (2010). Characterizing the evaluand in evaluation theory. American Journal of Evaluation, *31*, 383-389.

Strauss, A. L. & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques.*
Newbury Park, CA: Sage.

Conceptual Framework / Content Analysis / Document Analysis

Caulley, D. N. (1983). Document analysis in program evaluation. *Evaluation and Program Planning, 6*, 19-29.

Hodder, I. (1998). The interpretation of documents and material culture. In C. F. Conrad, J. G. Haworth, & L. R.
Lattuca (Eds.), *Qualitative research in higher education: Expanding perspectives* (pp. 599-610). Los Angeles,
CA: Sage

Holsti, R. O. (1969). *Content analysis for the social sciences and humanities.* Don Mills, Ontario: Addison-Wesley.

Jaccard, J. & Jacoby, J. (2010). *Theory construction and model-building: A practical guide for social scientists.* New
York, NY: The Guilford Press.

Kirppendorf, K. (2004). Content analysis: An introduction to its methodology (2nd ed.). Thousand Oaks, CA: Sage\.

Krathwohl, D. R. (1993). *Methods of educational and social science research:An integrated approach.* White Plains,
NY: Longman Publishing Group.

Lincoln, Y. S., & Guba, E. G. (1985*). Naturalistic inquiry.* Beverly Hills, CA: Sage.

Mathison, S. (2005). Content analysis. *Encyclopedia of evaluation.* Thousand Oaks, CA: Sage.

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation.* San Francisco, CA: Jossey-Bass.

United States General Accounting Office. (1996). *Content analysis: A methodology for structuring and analyzing
written material* (PEMD-10.3.1).

Weber, R. P. (1990). *Basic content analysis* (2nd ed.). Newbury Park: Sage.

Whitt, J. E. (2001). Document Analysis. In C. F. Conrad, J. G. Haworth, & L. R. Lattuca (Eds.), *Qualitative research in
higher education: Expanding perspectives* (2nd ed., p. 447). Boston, MA: Pearson Custom Publishing.