

ACADEMIC - IMPRESSIONS

Gathering, Analyzing, Interpreting, and Using Faculty Evaluation Data

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Michael Theall, Ph.D.
Youngstown State University
330-941-1320 mtheall@ysu.edu

ACADEMIC - IMPRESSIONS

BASIC ISSUES **affecting data decisions**

ALL EVALUATION and
DEVELOPMENT ARE LOCAL!

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BASIC ISSUES

affecting data decisions

EVALUATION WITHOUT
DEVELOPMENT IS PUNITIVE;

DEVELOPMENT WITHOUT
EVALUATION IS GUESSWORK!

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BASIC ISSUES

affecting data decisions

Evaluation and development systems will not be complete until they are based on an understand of the work that faculty are expected to do, the skills that are required to do that work, and the criteria to be applied in evaluation!

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BASIC ISSUES

affecting data decisions

- Reliability
- Validity
- Generalizability
- Feasibility
- Skulduggery

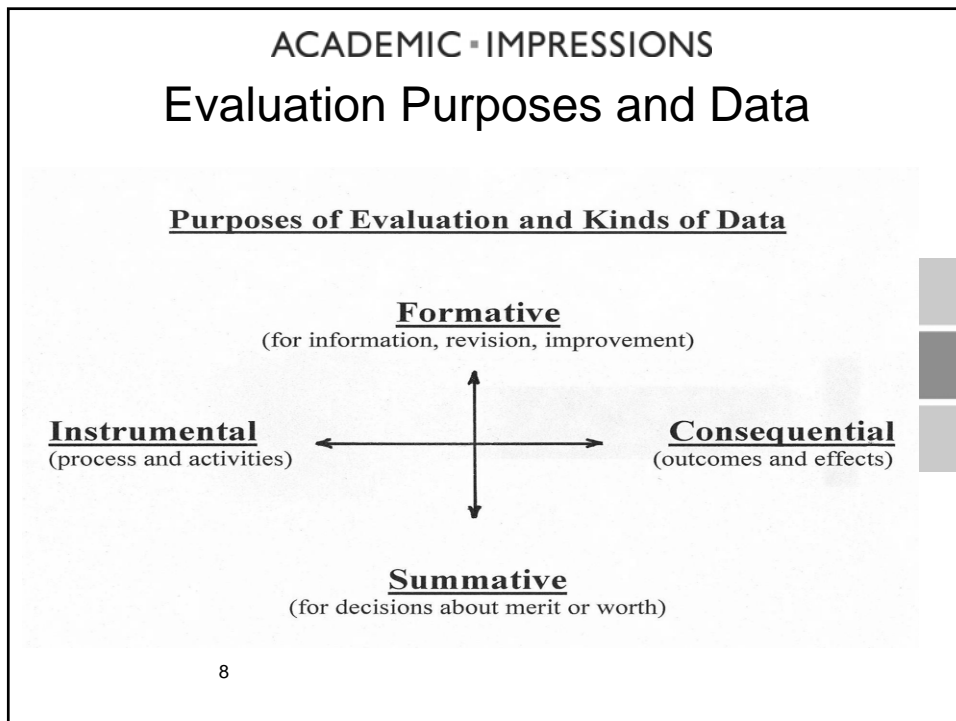
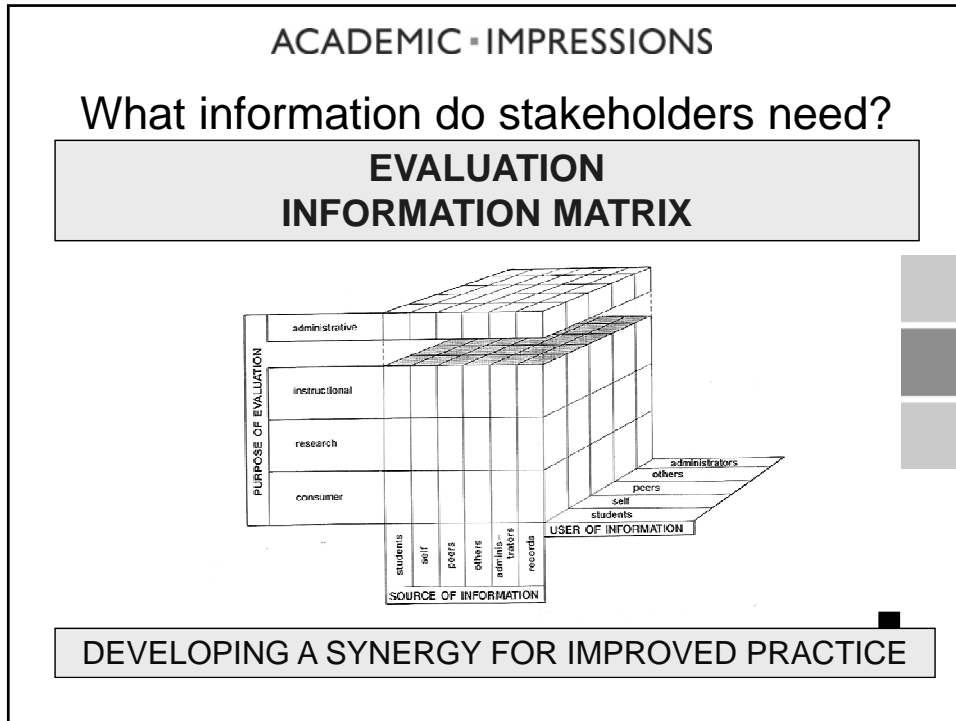
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DATA – DATA - DATA

- **Purposes – data types**
- **Data uses**
- **Data sources**
- **Research --- [Ratings; Other data]**
- **Decision-making**
- **Instrumentation**
- **Analysis**
- **Interpretation**

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Uses of Data	
Personnel Decisions	Teaching Improvement
Overall performance	Assessable modifiable behaviors
Quantitative outcome oriented	Qualitative process oriented
Comparative database	Informative database
Empirical direct unambiguous	Comprehensive detailed suggestive
Global items	Specific "low inference" items
Public	Confidential
9	Supporting data

- ACADEMIC - IMPRESSIONS
- Sources of data:
- Student Opinions & Student Learning
 - Peer Evaluation (internal & external)
 - Administrator and Self-Evaluation
 - Advising; Recruiting; Admissions; Retention
 - Media Documentation
 - Alumni Ratings & Employer Opinions
 - Scholarly Work (pubs; presents; citations; interviews; media; invited opinion; testimony; products, performances; exhibits)
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Sources of data:

- Awards; Honors; Grant\$; Donation\$
- Professional Activities (consulting & pro-bono)
- Service (department; college; university; national; professional, community)
- Administration (committees; grants; service or Gen Ed course coordination; GA/TA supervision; interim roles)

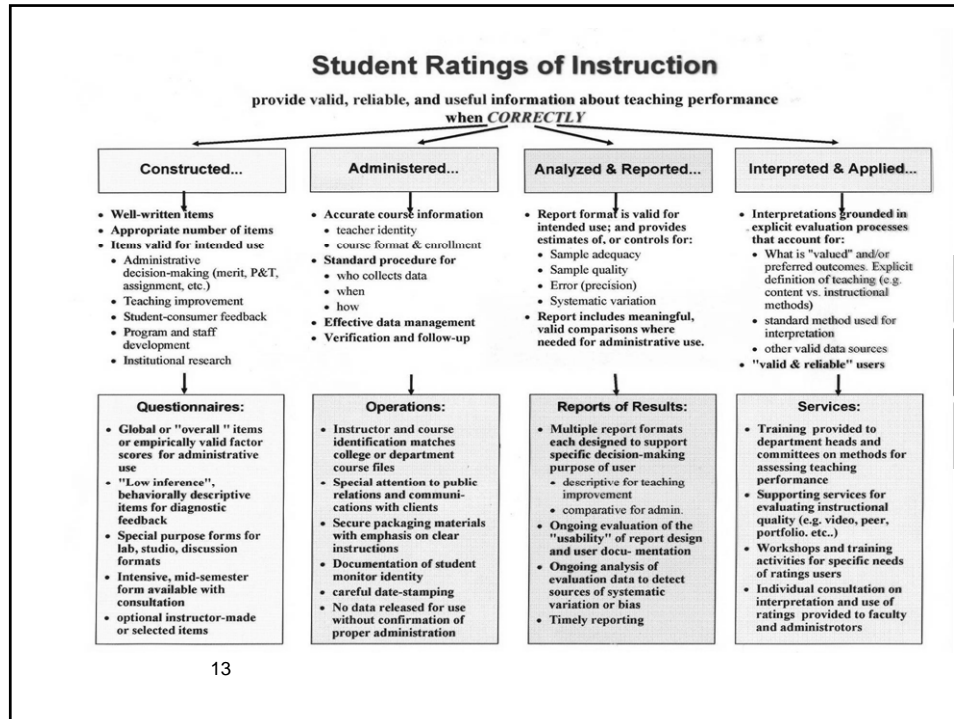
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Research Findings and Recommendations:

- **Student ratings**
- **Other sources of evaluation data**

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Ratings are:

- Multidimensional
- Reliable and Stable
- Primarily a function of the instructor
- Relatively valid as evidence of effective teaching
- Relatively unaffected by a number of variables posed as biases
- Useful as teaching feedback

Marsh, 2007

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Additional findings:

- Class size: slight negative (curvilinear)
- Prior interest in subject: positive
- Elective vs. required courses: more positive for electives
- Disciplinary area: consistent differences
- Work/difficulty: slight positive (curvilinear)
- Course level: slight positive for upper division & grad
- Anonymity: ratings more positive if violated

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Additional findings:

- Purpose of eval: more positive if manipulated
- Instructor rank: none
- Teacher/student gender: none
- Teacher ethnicity/race: none
- Research productivity: none
- Student locus & performance attributions: none
- Student/teacher personality: none

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FACTORIAL INVARIANCE

<i>learning / value</i>	<i>workload / difficulty</i>
<i>enthusiasm</i>	<i>breadth of coverage</i>
<i>organization</i>	<i>individual rapport</i>
<i>assignments</i>	<i>group interaction</i>
<i>exams / grading</i>	

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ITEMS	RANKED CORRELATION WITH ACHIEVEMENT	RANKED CORRELATION WITH EVALUATIONS
1. preparation and organization	1	6
2. clarity and understandableness	2	2
3. perceived outcome or impact	3	3
4. stimulation of interest in content	4	1
5. encouragement and openness	5-6	11
6. availability and helpfulness	5-6	16
7. presentation and speaking skills	7-8	10
8. clarity of objectives and requirements	7-8	7
9. subject knowledge	9	9

Dimensions of teaching table adapted by Michael Theall with permission from Kenneth Feldman. Source: Feldman, K. A. (1989). The association between student ratings of specific instructional dimensions and student achievement: Refining and extending the synthesis of data from multisection validity studies. *Research in Higher Education*, 30, 583-645.

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ITEMS	RANKED CORRELATION WITH ACHIEVEMENT	RANKED CORRELATION WITH EVALUATIONS
10. concern for student progress	10	5
11. teacher enthusiasm for subject	11	8
12. teacher's fairness	12	14-15
13. intellectual challenge	13	4 /
14. concern / respect for students	14-15	12
15. feedback quality & frequency	14-15	17
16. nature / value of course material	16	13
17. nature / usefulness of supplements/aids	17	14-15

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Other sources of data:

- Peer Evaluation**
 (usually department, but sometimes institutional colleagues)

Best for teacher knowledge, certain course or curricular issues, assessment issues, currency /accuracy of content, (esp. when used along with student ratings). If on teaching, less reliable and higher on average than student ratings.

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Other sources of data:

- **Administrator Evaluation** (department chair)
Necessary as part of process, but same problems as peers on teaching (criteria, process, instruments, validation, etc.)
- **Self – Evaluation** (e.g., in a portfolio)
Provides the most complete picture of teacher thinking & instructional decisions/practices, but difficult to reliably interpret & use

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Other sources of data:

- **External Expert Evaluation** (almost always by an expert in the same discipline; sometimes by an expert in teaching)
Useful, but require process cautions and careful use/interpretation; having a purpose is important
- **Alumni Ratings** (at various career stages & times)
Can be useful but generally the same as student ratings given same instrument; can shed light on teaching in terms of content, process, or curricular issues for formative purposes.

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Other sources of data

- **Media Documentation** (usually video recording for teaching, but other forms for overall evaluation)
Excellent for formative purposes; need guidelines for use by others beyond teacher; unambiguous if used carefully to assess low-inference behaviors; other media may vary in quality (e.g., Carl Sagan vs. local news)
- **Awards & Honors** (all types)
Local awards lack standard criteria & decision processes; national awards more prestigious

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Other sources of data:

- **Scholarship of Teaching & Learning**
Valid and important IF recognized within the dept/college/univ.
- **Employer Opinions of Graduates**
Limited use; better for program evaluation & curricular issues

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Other sources of data:

- **Student Learning Outcomes**

Useful for formative (individual) or program purposes (if aggregated for assessment); not recommended for summative decisions. Test scores are not as reliable as ratings from a validated instrument. Criteria vary considerably (e.g., What does “All her students got ‘A’s” mean?)

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FOR FORMATIVE DECISIONS

- Student Ratings (Teaching)
- Peer-external ratings (All topics)
- Self-ratings (All topics)
- Videos (Primarily teaching)
- Student Interviews (Primarily teaching)
- Exit & Alum Ratings (Primarily teaching)

Adapted from Berk, 2006, p. 45

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**ACADEMIC - IMPRESSIONS
FOR SUMMATIVE DECISIONS
(ANNUAL REVIEW)**

- Student Ratings (Teaching)
- Self-peer Ratings (Various topics)
- Administrator Ratings (All issues)
- Scholarship (Disciplinary)
- Scholarship of Teaching
- Service (department/institution/professional)
- Administrative Support (Rating of work performed as administration or service)

Adapted from Berk, 2006, p. 45

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**ACADEMIC - IMPRESSIONS
FOR SUMMATIVE DECISIONS
(promotion & tenure)**

- Student Ratings (Teaching)
- Administrator Ratings (All topics)
- Teaching Portfolio
(All topics with caution & clear criteria)
- Institutional Input (P & T Committees)
- External Input (Some or all topics)

Adapted from Berk, 2006, p. 45

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FOR PROGRAM DECISIONS

- Student Ratings
- Assessment Data
- Exit and Alumni Ratings/Data
- Employer Ratings
- Institutional Data

Adapted from Berk, 2006, p. 45

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Implementation issues:

- Instrumentation
 - Analysis
 - Reporting
- Interpretation

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Instrumentation

- Student Rating Instruments
- Peer/Administrator Protocols
- Peer/Administrator Instruments
- Media Documentation
- Checklists/Rubrics

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Instrument types compared

LOCAL	NATIONAL
specific	general
content control	few options
must be validated	validated
analysis needed	analysis provided
no norms	established norms
reports created	reports standard
interpretation?	some interpretation

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Analysis possibilities for validation

- Item analysis
- Reliability coefficients
- Correlational analysis
- Factor analysis
- Regression analysis

on entire database and on subsets as
soon as enough data is available

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REPORTING DATA

- Statistics
- Formats
- Content
- Delivery (paper vs e-copy)
- Distribution
- Interpretation Training

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**Analysis possibilities
for reports of results**

- Descriptive statistics
(item distributions in # and %)
- Central tendency (mean, mode, median)
 - 1 2 3 3 4 5 (3, 3, 3)
 - 1 1 2 3 4 5 5 (3, 1 & 5, 3)
 - 1 2 3 4 5 5 (3.33, 5, 3.5)
 - 1 2 3 4 5 5 5 (3.57, 5, 4)
- Standard deviations (sampling error)
- Enrolled / responded #s and ratio

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Class Size	Minimum acceptable response
5-20	at least 80%
20-30	at least 75%
30-50	at least 60%
	75% or more recommended
50-100	at least 50%
	66% or more recommended
>100	more than 50%

*providing there is no systematic reason for absence or non-responding which might bias response.

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Analysis possibilities for reports of results

- Standard scores
- Comparative data (norms, criterion references, self-ratings)
- Ranges (%ile rank, %ile group, confidence intervals for self and comparison groups)

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Application to Decision Making

1. Sufficient TCE data to characterize average performance
2. Decision-makers use valid interpretations of TCE results
3. TCEs are one source among several (portfolio)
4. Criteria are standard, documented, and public.

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Quality of Personnel Decision Depends On

- **Fair personnel practices**
- **Interpretive skills of decision-makers**
 - Knowledge of evaluation methods
 - Quantitative skills
 - Knowledge of post secondary teaching practice and technique
- **The quality of the information decision-makers receive**
 - Validity – measures relevant aspects of teaching skill or instructional quality
 - Reliability – precision
 - ‘Comprehensibility’ – message design and contents are appropriate for the skills of users, including any needed decision support

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INSTRUCTIONAL REPORT of EDUCATIONAL SATISFACTION: I.R.E.S.)

**Universitas pro Omnibus Discipuli
et Facultitas in Excelcis**

Instructor: U.N. Fortunate
Course #: HIS123
Course name: History of Everything
Term/year: Spring, 1994

	A	B	C	D	E	F	O
amount learned	3	16	46	21	14	0	1
overall teacher	1	12	40	29	18	0	0
overall course	2	8	49	20	11	0	0

Note: (A) =5= Best; (F)=6=Worst ... Enrolled: 120; Responded: 53

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INSTRUCTIONAL REPORT of EDUCATIONAL SATISFACTION: I.R.E.S.)												
Universitas pro Omnibus Discipuli et Facultitas in Excelcis												
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Course #: HIS123												
Course name: History of Everything												
Term/year: Spring, 1994												
% / # responses >	A	B	C	D	E	F	O	mean	s d	T	grp	
amount learned	3/2	16/10	46/29	21/13	14/9	0/0	1/1	2.64	0.88	27	low	
overall teacher	1/1	12/8	40/25	29/18	18/11	0/0	0/0	2.43	0.96	24	low	
overall course	2/1	18/11	49/31	20/13	11/7	0/0	0/0	2.81	0.93	33	low	
Raw score: (A) =5= Best; (E) =1= Worst; F= Not applicable; O = Omitted;												
Enrolled = 120; Responded = 63: (sample adequate)												
T-score: Standardized score where 40 - 60 = mean, and each 10 points in each direction is one standard deviation												
Group score:= 0-10% = low; 10-30% - low middle; 30-70% = middle; 70-90% = high middle; 90-100% = high												
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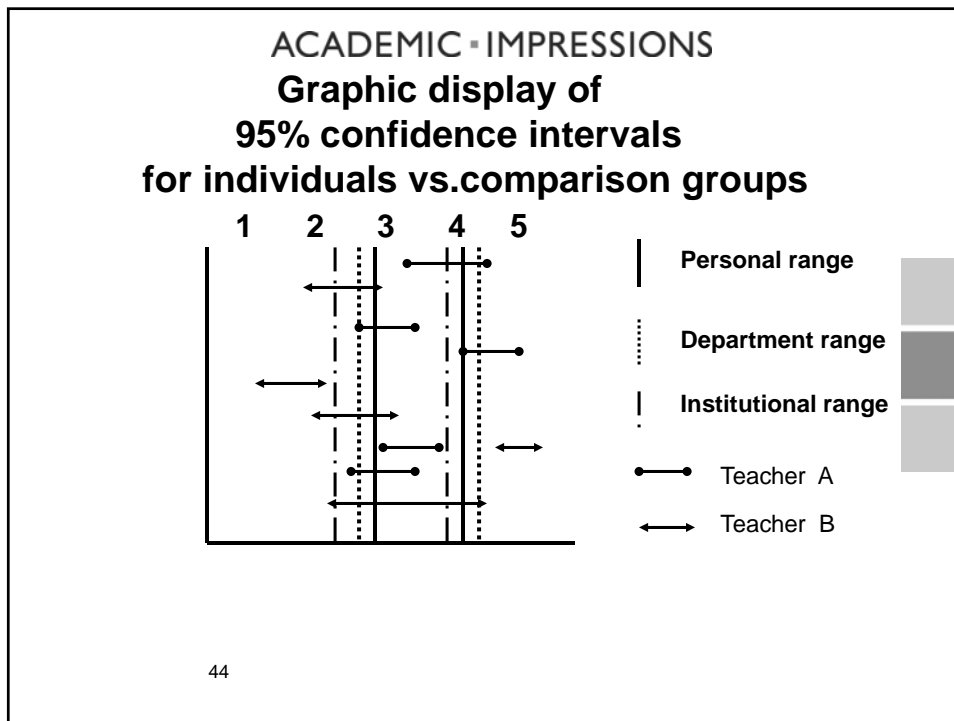
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Two evaluations of HIS 345												
	mean	s d	T	group								
amount learned	3.35	0.87	<u>45</u>	<u>low-mid</u>	term/yr = spring, 1995							
overall teacher	2.76	0.76	35	low	instr = UNFortunate							
overall course	2.85	0.90	37	low	course = his 345							
					resp/enr = 29/61							
					% resp=48							
amount learned	3.97	1.40	<u>56</u>	<u>hi-mid</u>	term/yr= fall, 1995							
overall teacher	3.57	1.30	<u>47</u>	<u>mid</u>	Instr = UNFortunate							
overall course	3.63	1.24	<u>50</u>	<u>mid</u>	course = his 345							
					resp/enr = 20/42							
					% resp=48							
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**Enrollment profiles for HIS 345
in two semesters**

	Fr	So	Jn	Sn	Tot	
original enr.	6	17	15	23	61	term/yr = spring, 1995
final enr.	5	14	12	20	51	Instr = UN Fortunate
eval respondents	5	13	11	0	29	course = his 345
						resp/enr = 29/51
						% resp=57
original enr.	3	11	12	16	42	term/yr = fall, 1995
final enr.	2	7	8	12	29	Instr = UN Fortunate
eval respondents	2	4	5	9	20	course = his 345
						resp/enr = 20/29
						% resp=69

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**Guideline #1
(do your homework)**

- **Establish the purpose of the evaluation and the uses and users of ratings beforehand;**
- **Include all stakeholders in decisions about evaluation process and policy;**
- **Keep a balance between individual and institutional needs in mind;**
- **Build a real "system" for evaluation, not a haphazard and unsystematic process;**

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**Guideline # 2
(establish protection for all)**

- **Publicly present clear information about the evaluation criteria, process, and procedures.**
- **Establish legally defensible process and a system for grievances;**
- **Establish clear lines of responsibility/ reporting for those who administer the system;**
- **Produce reports that can be easily and accurately understood.**

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Guideline # 3 **(make it positive, not punitive)**

- **Absolutely include resources for improvement and support of teaching and teachers;**
- **Educate the users of ratings results to avoid misuse and misinterpretation;**
- **Keep formative evaluation confidential and separate from summative decision making;**
- **In summative decisions, compare teachers on the basis of data from similar situations;**
- **Consider the appropriate use of evaluation data for assessment and other purposes.**

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Guidelines # 4 **(verify & maintain the system)**

- **Use, adapt, or develop instrumentation suited to institutional/individual needs;**
- **Use multiple sources of information from several situations;**
- **Keep ratings data and validate the instruments used;**
- **Invest in the evaluation system and evaluate it regularly;**
- **Seek expert, outside assistance when necessary or appropriate.**

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Questions?

Michael Theall, Ph.D.
Youngstown State University
330-941-1320
mtheall@ysu.edu

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A PLACE TO BEGIN

**EXAMINE THE PRIORITIES AND NEEDS
OF THE STAKEHOLDERS IN AN OPEN AND
PUBLIC PROCESS OF DIALOGUE AND
CONSENSUS BUILDING**

**CONSIDER A WIDE VIEW OF THE ROLES
AND RESPONSIBILITIES OF THE FACULTY AT
YOUR INSTITUTION**

**IDENTIFY THE SKILLS FACULTY NEED AS
THE BASIS FOR EVALUATION AND
PROFESSIONAL ENRICHMENT**

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Summary matrix <http://www.cedanet.com/meta>

SKILL SETS		FACULTY ROLES				
		Teaching	Scholarly & Creative Activities	Service	Administration	
BASE PROFESSION Skill Sets	Content Expertise					
	Practice/Clinical Skills					
	Research Techniques					
Additional META-PROFESSION Skill Sets	Instructional Design					
	Instructional Delivery					
	Instructional Assessment					
	Course Management					
	Instructional Research Techniques					
	Psychometrics/Statistics					
	Epistemology					
	Learning Theory					
	Human Development					
	Information Technology					
	Technical Writing					
	Graphic Design					
	Public Speaking					
	Almost Always	Communications Styles				
	Frequently	Conflict Management				
Occasionally	Group Process					
Almost Never	Resource Management					
	Personnel Supervision/Management					
	Financial/Budget Development					
	Policy Analysis & Development					

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Basic References

Arreola, R. A. (2007) *Developing a Comprehensive Faculty Evaluation System*. (3rd ed.) Bolton, MA: Anker Publishing Company.

Berk, R. A. (2006) *Thirteen strategies to measure college teaching*. Sterling, VA: Stylus Publishing.

Cashin, W. E. (1990) Students do rate different academic fields differently. In M. Theall & J. Franklin (Eds.) "Student ratings of instruction: issues for improving practice." *New Directions for Teaching and Learning # 43*. San Francisco: Jossey Bass.

Centra, J. A. (1993). *Reflective Faculty Evaluation: Enhancing Teaching and Determining Faculty Effectiveness*. San Francisco: Jossey-Bass.

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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*. New York: Springer.

Scriven, M. (1967) "Methodology of evaluation." In R. Tyler, R. Gagne, & M. Scriven (Eds.) *Perspectives of curriculum evaluation*. Chicago: Rand McNally & Company.

Theall, M, Abrami, P. A. & Mets, L. (2001) (Eds.), "The student ratings debate. Are they valid? How can we best use them?" *New Directions for Institutional Research No. 109*. San Francisco: Jossey Bass.

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Basic References

Theall, M. & Arreola, R. A. (2006) "The Meta- Profession of teaching." *NEA Higher Education Advocate*, 22 (5), 5-8, June.

Theall, M., & Franklin, J. L. (Eds.) (1990). Student ratings of instruction: Issues for improving practice. *New Directions for Teaching and Learning #43*. San Francisco: Jossey Bass.

Other New Directions volumes on evaluation/ratings:
N. D. Teaching & Learning #s: 83, 87, 96;
N. D. Institutional Research #: 114

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For more information, go to:

<http://www.cedanet.com/meta>

**for documents and materials about the
'meta-profession' of the professoriate**

<http://ntlf.com/pod/index.html>

**for a review of the research and an
extended/annotated bibliography**

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**For information about evaluation
instruments:**

Student Instructional Report (SIR / SIR II)

Educational Testing Service

609-921-9000

www.ets.org

**Instructional Development and Educational
Assessment Survey (IDEA)**

The IDEA Center

Kansas State University

800-255-2757; idea@ksu.edu

<http://www.idea.ksu.edu/>

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**For information about evaluation
instruments:**

Course-Instructor Evaluation Questionnaire (CIEQ)

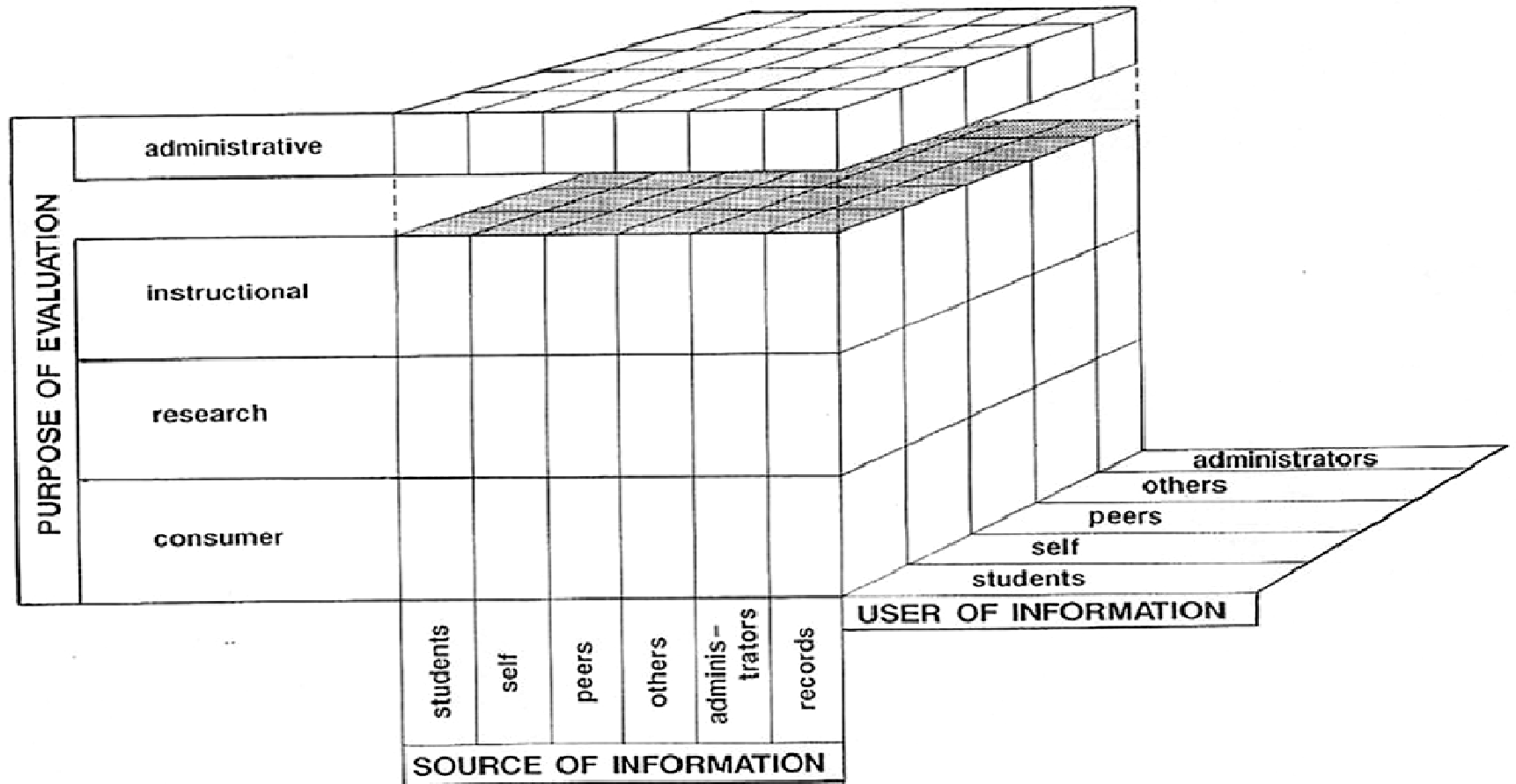
Lawrence Aleamoni
University of Arizona
www.cieq.com

Student Evaluation of Educational Quality (SEEQ)

Herbert W. Marsh
Oxford University
herb.marsh@edstud.ox.ac.uk

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Evaluation Information Matrix



Developing a Synergy for Improved Practice

Student Ratings of Instruction

provide **valid, reliable, and useful** information about teaching performance

when **CORRECTLY**

Constructed...

- Well-written items
- Appropriate number of items
- Items valid for intended use
 - Administrative decision-making (merit, P&T, assignment, etc.)
 - Teaching improvement
 - Student-consumer feedback
 - Program and staff development
 - Institutional research

- ### Questionnaires:
- Global or "overall" items or empirically valid factor scores for administrative use
 - "Low inference", behaviorally descriptive items for diagnostic feedback
 - Special purpose forms for lab, studio, discussion formats
 - Intensive, mid-semester form available with consultation
 - optional instructor-made or selected items

Administered...

- Accurate course information
 - teacher identity
 - course format & enrollment
- Standard procedure for
 - who collects data
 - when
 - how
- Effective data management
- Verification and follow-up

- ### Operations:
- Instructor and course identification matches college or department course files
 - Special attention to public relations and communications with clients
 - Secure packaging materials with emphasis on clear instructions
 - Documentation of student monitor identity
 - careful date-stamping
 - No data released for use without confirmation of proper administration

Analyzed & Reported...

- Report format is valid for intended use; and provides estimates of, or controls for:
 - Sample adequacy
 - Sample quality
 - Error (precision)
 - Systematic variation
- Report includes meaningful, valid comparisons where needed for administrative use.

- ### Reports of Results:
- Multiple report formats each designed to support specific decision-making purpose of user
 - descriptive for teaching improvement
 - comparative for admin.
 - Ongoing evaluation of the "usability" of report design and user documentation
 - Ongoing analysis of evaluation data to detect sources of systematic variation or bias
 - Timely reporting

Interpreted & Applied...

- Interpretations grounded in explicit evaluation processes that account for:
 - What is "valued" and/or preferred outcomes. Explicit definition of teaching (e.g. content vs. instructional methods)
 - standard method used for interpretation
 - other valid data sources
- "valid & reliable" users

- ### Services:
- Training provided to department heads and committees on methods for assessing teaching performance
 - Supporting services for evaluating instructional quality (e.g. video, peer, portfolio, etc..)
 - Workshops and training activities for specific needs of ratings users
 - Individual consultation on interpretation and use of ratings provided to faculty and administrators

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5. encouragement and openness	5-6	11
6. availability and helpfulness	5-6	16
7. presentation and speaking skills	7-8	10
8. clarity of objectives and requirements	7-8	7
9. subject knowledge	9	9
10. concern for student progress	10	5
11. teacher enthusiasm for subject	11	8
12. teacher's fairness	12	14-15
13. intellectual challenge	13	4 /
14. concern / respect for students	14-15	12
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	Practice/Clinical Skills				
	Research Techniques				
Additional META-PROFESSION Skill Sets	Instructional Design				
	Instructional Delivery				
	Instructional Assessment				
	Course Management				
	Instructional Research Techniques				
	Psychometrics/Statistics				
	Epistemology				
	Learning Theory				
	Human Development				
	Information Technology				
	Technical Writing				
	Graphic Design				
	Public Speaking				
	Communications Styles				
Conflict Management					
Group Process					
Resource Management					
Personnel Supervision/Management					
Financial/Budget Development					
Policy Analysis & Development					

Summary matrix <http://www.cedanet.com/meta>