

HOW TO MAKE GRADING AND RESPONDING

QUICK,

FAIR,

AND

CONDUCTIVE TO LEARNING

How To Use The Grading process

For Departmental or

Institutional Assessment

Barbara E. Walvoord, Ph.D.

Director, The John A. Kaneb Center for Teaching and Learning

(Concurrent Professor of English)

University of Notre Dame

353 DeBartolo Hall

Notre Dame, Indiana 46556-0399

Phone: 219-631-9147 ~ Fax: 219-631-8047

E-Mail: Barbara.E.Walvoord.1@nd.edu

TABLE OF CONTENTS

Overview: Using the Grading Process for Assessment	1
1. Establishing Clear Criteria	2
2. Primary Trait Analysis (PTA): A Method of Stating Criteria	7
3. Evaluating Student Work Fairly and Consistently Against the Criteria	30
4. Using the Grading/Responding Process to Improve Teaching and Learning	31
5. Saving Time in the Grading/Responding Process	45
6. Using the Grading/Responding Process for Departmental and Institutional Assessment	46
7. Getting Started: One College's Story	60
8. Bibliography	61

Overview

Theoretical Ground for Using the Grading Process for Assessment

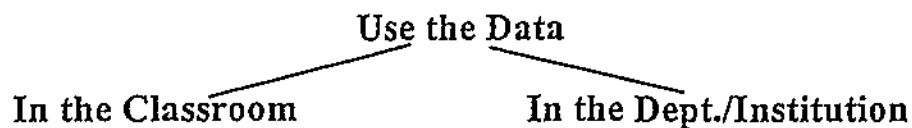
Grades as isolated artifacts are not very useful for assessment.

But the grading process, when well done, can yield rich information about student learning and can contribute to classroom and institutional assessment.

Basic Assessment Plan: Collect and Analyze the Data Generated by the Classroom Grading Process

Typical data:

- Teacher's learning goals (individual or collective among a group/dept.)
- Tests, assignments (assessment instruments)
- Teacher's criteria and standards
- Student outcomes
- Evidence of feedback into learning and teaching



1. ESTABLISHING CLEAR CRITERIA

EXAMPLE: ARGUMENTATIVE ESSAYS IN HISTORY

The Course: Western Civilization, a CORE course required of all students in first year

Instructor: John R. Breihan

Course Goals:

At the end of the course, students should be able to:

- Identify and describe common historical events and concepts
- More important, use that information to critique and construct historical arguments

In constructing their own arguments, student should:

- Take a position on a debatable issue
- Back the position with appropriate historical evidence
- Raise and answer counter arguments

Sample Essay Questions:

Note: These are summaries: actual assignment sheets to students were much more detailed

For Unit #1: Western Civ, 1500-1800. What Price Order?

Describe the possible attitudes, both pro and con, of Burke and Paine about Louis XIV of France

For Unit #3: 1945 onward. Why Arm, Why Fight?

As a U.S. Senator in 1949, explain to your constituency your reasons for voting either for or against the ratification of the NATO treaty, and answer your opponents' arguments.

History Professor's Grading Checksheet Given to Students

The scale describes a variety of common types of paper but may not exactly describe yours; my mark on the scale denotes roughly where it falls. More precise information can be derived from comments and conferences with the instructor.

- | | | |
|---|--|---|
| F | 1. | The paper is dishonest. |
| | 2. | The paper completely ignores the questions set. |
| | 3. | The paper is incomprehensible due to errors in language or usage. |
| | 4. | The paper contains very serious factual errors. |
| D | 5. | The paper simply lists, narrates, or describes historical data, and includes several factual errors. |
| | 6. | The paper correctly lists, narrates, or describes historical data, but makes little or no attempt to frame an argument or thesis. |
| C | 7. | The paper states an argument or thesis, but one that does not address the questions set. |
| | 8. | The paper states an argument or thesis, but supporting subtheses and factual evidence are: |
| | | a. missing |
| | | b. incorrect or anachronistic |
| | | c. irrelevant |
| | d. not sufficiently specific | |
| | e. all or partly obscured by errors in language or usage | |
| B | 9. | The paper states an argument on the appropriate topic, clearly supported by relevant subtheses and specific factual evidence, but counterarguments and counterexamples are not mentioned or answered. |
| | 10. | The paper contains an argument, relevant subtheses, and specific evidence; counterarguments and counterexamples are mentioned but not adequately answered: |
| | | a. factual evidence either incorrect or missing or not specific |
| | | b. linking subtheses either unclear or missing |
| A | | c. counterarguments and counterexamples not clearly stated: "straw man" |
| | 11. | The paper adequately states and defends an argument, and answers all counterarguments and counterexamples suggested by: |
| | | a. lectures |
| | | b. reading assignments: specific arguments and authors are mentioned by name |
| | | c. common sense |

Guide. for peer review in metallurgical kinetics
 Prof. J. S. Foster

MY418 Metallurgical Kinetics
 Spring Term-1978
 Professor J. S. Foster

Name of Critic _____
 Author of paper _____

PEER CRITIQUES

Instructions: This critique involves the ten steps listed below, and it should be done using the author's rough draft. The rough draft should be typewritten, double or triple spaced with wide margins to leave plenty of room for the critic's comments and rewriting by the author. The critic should read the paper first without trying to answer any of the questions or do any of the operations requested below. Then the critic should do the critique over a period of two or three days. The critic may wish to return the draft to the author at some intermediate stage for some revision prior to completing the critique. This timing should allow for the critic to become properly acquainted with the material in the paper, to carefully consider any suggestions, and perhaps to directly discuss certain points with the author. These critiques will be beneficial to both parties if carried out faithfully and in a courteous manner.

1. Describe the topic of this paper in one or two sentences.
2. ~~Make a brief outline of the paper.~~ Does one point follow another? (Use the back of this sheet if necessary.)
3. Is the paper appropriate for the audience (your classmates)? Is there too much or too little explanation?
4. Have advantages and disadvantages as well as alternatives been mentioned where appropriate?

Name of Critic _____

Author of Paper _____

5. Do you find ~~any contradictions or errors of argument~~ which you feel weaken this paper? (Write your doubts here.)
6. Has the author illustrated important points with examples, facts, concrete terms? (Indicate in margin where you want more information.)
7. Are there any one or two sentence paragraphs? Should there be?
8. Look for words that are vague or unclear; underline those words and put a question mark in the margin. Can you suggest alternates? Are technical terms and symbols properly defined or explained considering the audience?
9. Proofread paper for author, using light pencil to indicate spelling, punctuation, mechanical problems.
10. Critically examine any equations or calculated values to see that they are complete and correct. Are units used properly to describe quantities of interest?

From: Barbara Walvoord., Helping Students Write Well. 2nd ed. (NY:MLA, 1986), pp 47-49

Peer Evaluation of First Draft of Term Paper
A Student's Guide

(Developed by Mark P. Curchack for sociology students at Beaver College.)

Author of Draft _____ Name of Reviewer _____

Title of Draft _____

Directions: By answering the following questions thoughtfully and clearly, be as helpful as possible to the author of this draft. Use complete sentences and specific examples to ensure clarity in your advice. You will be evaluated on the thoughtfulness and helpfulness of your responses.

1. *Overall situation:* How near to completion is this draft? What steps should the author take to complete this term paper? Be both specific and helpful in listing the three most important steps below:
 - a.
 - b.
 - c.
2. *Organization:* Is this draft organized in a standard pattern: an introductory section; the body of the paper, presenting the information in a reasonable sequence; and a summary and analysis of the situation? If there is an alternative organization, say what it is and whether it is effective.
3. *Introductory section:* The first few paragraphs should prepare the reader (another student in the course) for the research that has been done on the topic.
 - a. Does the introduction explain the topic and why it is important? Briefly state why you think it is important.
 - b. After reading the paper, say whether you think the introduction introduces what you've read. Does it? How?
4. *Body of the paper:* The major portion of the paper should present the collected information in an orderly and clear fashion.
 - a. In the space below, outline in some detail the major points established in the body of the paper and the evidence used to support the points.
 - b. Is the style of the writing appropriate to the intended audience, you and the others in the class?
 - c. Compared with that of the textbook, is the style more or less formal? How?
 - d. Has the author thoroughly paraphrased the information from the references so that the writing style is consistent? Remember that inadequate paraphrasing is a common student problem and may even approach plagiarism.

- e. Has the writer organized the information in the most effective way?
 - 1. If not, suggest improvements.
 - 2. How would you characterize the organization? Is it a list of equal points, an arrangement of topics and subtopics, a chronological sequence, an argument with two or more opposing viewpoints, or what?
- f. How has the writer handled citations?
 - 1. Are they in an acceptable style, used consistently?
 - 2. Is the number of citations adequate to the information taken from sources?
 - 3. How has the information from sources been organized?
 - a. One source per paragraph (give an example)
 - b. Multiple sources for each paragraph (give an example)
- g. Are the tables and/or figures used in the paper
 - 1. clear and easy to understand?
 - 2. referred to in the text?
 - 3. labeled with a title or legend?
 - 4. cited (at the end of the title or legend)?
- 5. *Conclusions:* A conclusion can take several forms: a restatement of the overall argument of the paper, a summary of the key points, a combination of several points to make a final point, an analysis of the data, and so on.
 - a. What form has the writer used to conclude the paper?
 - b. Does the conclusion seem to be supported by the evidence? How or how not?
- 6. *Features of the writing:*
 - a. Are there any problems in the grammar, spelling, punctuation, paragraph structure, sentence structure, transitions? Which one(s) in particular? Do these problems interfere with the meaning the writer is trying to express?
 - b. Has the writer acknowledged the help of others?
- 7. *General evaluation:* In the space remaining, give your general impression of the paper. Did you like it and why? What did you learn from it? What else do you wish you had learned from it? Give any other ideas that you think might help.

2. Primary Trait Analysis: A Method of Stating Criteria

We can place scoring/grading practices along two continua:

Tacit Criteria<- - - - -	>Fully Explicit Criteria
"It feels like a B"	Primary Trait Assessment

Norm-Referenced<- - - - -	>Criterion-Referenced
Grading "on a curve"	Grading by achievement of
Score expressed	absolute criteria
as a percentile	Primary Trait Assessment

DEFINITION OF PRIMARY TRAIT

PTA is a method of explicitly stating the criteria for evaluation of a performance.

PTA is assignment specific; for each performance, the assessor builds a unique set of criteria.

PTA identifies the factors or "traits" that will count for the scoring (e.g. thesis, materials and methods, use of color, eye contact with client), and then builds a scale for scoring the student's performance within each trait.

HOW TO CONSTRUCT A PRIMARY TRAIT SCORING SCALE

If possible, work from examples of past student performances

1. Choose a test or assignment that tests central goals/objectives of the course
2. Identify the factors or "traits" that will "count" in the assessment. These are nouns (e.g. thesis, eye contact with client, use of color, control of variables)
3. For each trait, construct a 3-5-point scale. These are descriptive statements (e.g. a "5" thesis is limited enough to treat within the scope of the essay and is clear to the reader; it enters the dialogue of the discipline as reflected in the student's sources, and it does so at a level that shows synthesis and original thought; it neither exactly repeats any of the student's sources nor states the obvious.)
4. Go over the scale with a colleague and revise
5. Try out the scale with student work and revise
6. Teach a colleague to use the scale for student work, check inter-rater reliability, and revise

PRIMARY TRAIT SCORING SCALE FOR STATISTICS

Instructor: Bill Marsh

Course: Probability and Statistics III

Student Assignment: At the conclusion of the three quarter Probability and Statistics sequence, I assign a research project which requires the student to utilize critical thinking skills that are a part of the course sequence. Students select a topic approved by me and must complete the following task:

- (A) Identify a problem and develop an appropriate hypothesis
- (B) Obtain a random sample of members of the population
- (C) Obtain measures of the variables of interest from the members of the sample group
- (D) Determine the appropriate data analysis
- (E) Present the findings in the form of conclusions that result in accepting or not accepting the null hypothesis

"Discipline Specific Assessment" is appropriate here because at regular intervals I and a trained independent evaluator can assess the course and the critical thinking goal on the basis of the following traits.

(A) Methodology

- (5) Correct statement of problem with accompanying null and alternative hypothesis. Well-defined population with appropriate random sample. Data collection is free of bias or contamination.
- (4) One part of the trait characteristics of the 5 level is not as high as it should be and overall the quality of the methodology is just slightly lower than the highest level.
- (3) All the necessary parts of the methodology are present but the quality level is only adequate.
- (2) A serious deficit in the methodology in the form of poorly performed tasks or some portions simply omitted. The results are compromised and may be unuseable.
- (1) A total failure to understand the task. The results will be invalidated because the methodology is erroneous.

(B) Demonstrates appropriate data analysis

- (5) Uses appropriate statistical test with correct results. Provides an interval estimation of the values of the parameter. Includes a hypothesis test and gives accompanying p-level stating probability of type I error.
- (4) Provides most of level 5 but one of the traits is missing or unclear.
- (3) Uses correct statistical test but estimation or interpretation is omitted
- (2) correct statistical test but errors in calculation and other work.
- (1) Incorrect statistical test: data is erroneous or missing

(C) Presents the findings in the form of conclusions that result in accepting or not accepting the null hypothesis. Identifies possible related studies and any possible weaknesses in the study.

- (5) A complete presentation of results with conclusions, estimation and p-levels for type-1 errors. Identifies possible threats to the study and also any areas in need of additional study.
- (4) Most of the above level is present but one characteristic could be improved.
- (3) The presentation is only adequate. Conciseness and clarity are lacking.
- (2) Conclusions are vague and inaccurate. There has been an effort by the student but there is an obvious lack of understanding and thoroughness on the part of the student.
- (1) A failure to make the necessary conclusions and implications.

PRIMARY TRAIT SCORING SCALE FOR OFFICE MANAGEMENT

Measuring General Education Component for Critical Thinking
Course Project for Microcomputer Spreadsheets

Maureen Margolis
Assistant Professor
Department of Office Administration

In addition to knowing the technical skills necessary to perform spreadsheet applications, students are required to apply these skills to a personal or hypothetical situation. They use higher-order thinking skills such as reasoning, evaluation, problem-solving, and decision making. Students will use creative thinking to develop the purpose of the application; use reasoning and problem-solving skills to analyze the appropriate uses of formulas and features to obtain the correct results; evaluative skills to apply and test the features, create graphs and perform data queries extracting information for reporting; decision-making skills for forecasting, drawing conclusions, summarizing the results, and making recommendations in a report.

Trait: Identifies the purpose of the application in the introduction.

5	4	3	2	1
Identifies the purpose of the application, who will be the primary user, how the application will be used.	Identifies the purpose of the application, and how it will be used.	Identifies the purpose of the application.	Purpose of the application is unclear.	Fails to identify the purpose of the application.

Trait: Defines the spreadsheet layout in a logical format and decides the formulas and features to be used.

5	4	3	2	1
Based on chosen application, student will construct a spreadsheet in a logical, clearly understood format using appropriate labels, values, formulas including 2 or more logical and statistical functions and a data table or lookup table.	Based on chosen application, student will construct a spreadsheet in a logical, clearly understood format using appropriate labels, values, and one logical or statistical function.	Based on chosen application, student will construct a spreadsheet in a logical, clearly understood format using basic mathematical formulas and functions.	Based on chosen application, student will construct a spreadsheet in an unclear, illogical format and not use appropriate formulas or functions.	Spreadsheet is not based on application nor logically or clearly understood by the reader or other user.

Trait: Applies formulas and functions and tests for accurate results.				
5	4	3	2	1
Student will work through the application, testing formulas and functions for accurate results. Debug if necessary and correct. Make decisions about changing formulas or functions to achieve desired results.	Student will work through the application, testing formulas and functions for accurate results. Debug if necessary and correct.	Student will work through the application, testing formulas and functions for accurate results. Correct obvious mistakes, but fails to debug.	Student will work through the application, testing formulas and functions for accurate results; however, no corrections are made.	Student fails to test the application or correct any miscalculations or formulas.
Trait: Use features to analyze data for the purpose of reporting and summarizing.				
5	4	3	2	1
Create three graphs from the spreadsheet that compare, contrast, or show percentage of the whole to help analyze the data. Extract data by querying the spreadsheet which would be used in a planning report.	Create two graphs from the spreadsheet that compare, contrast, or show percentage of the whole to help analyze the data. Extract data by querying the spreadsheet which would be used in a planning report.	Create two graphs from the spreadsheet that compare, contrast, or show percentage of the whole to help analyze the data OR performs a data query which is used in a planning report.	Create one graph from the spreadsheet that compares, contrasts, or shows percentage of the whole to help analyze the data.	Creates a graph, but fails to show how it compares, contrasts, or shows a percentage of the whole.

Trait: Analyze purpose and findings and draw conclusions.

5	4	3	2	1
Student summarizes purpose and findings, draws conclusions on usefulness in fulfilling user goals, explains results, and offers explanations.	Student summarizes purpose and findings, draws conclusions on usefulness in fulfilling user goals, but fails to explain results or	Student summarizes purpose and findings, but fails to draw conclusions on usefulness.	Student vaguely summarizes the purpose or findings and fails to draw conclusions.	Summary statement does not summarize purpose or findings and is merely a restatement of purpose, or writes no summary at all.

Scoring Primary Traits

To synthesize the information from the primary traits scale, it is necessary to use a scoring device to determine if students are using critical thinking skills.

The highest score possible is

25 points

70% of 25 (minimum points required to pass)

17 points minimum required to pass.

Assessment Criteria and Procedure

80% of the graduates from the Administrative Office Assistant Programs are able to demonstrate critical thinking skills by obtaining a score of 70% (17 points) on the primary traits scale.

PRIMARY TRAIT SCORING SCALE FOR JOURNALS IN SPANISH

By Dorothy Sole, University of Cincinnati

In addition to length and number of entries, Sole uses this scale to evaluate the quality of her students' journal entries in beginning Spanish:

- 4 = Although there are errors, appropriate verb tenses and correct Spanish structure and vocabulary appear consistently. The author has taken some chances. The entries are varied. The content of the journal is by and large comprehensible.
- 3 = There are some appropriate verb tenses and correct Spanish structure, but incorrect usage and/or vocabulary interferes with comprehension by the reader.
- 2 = There are few appropriate verb tenses, structure, or vocabulary, and the reader finds many of the entries difficult to understand. Too many entries are repetitious making the journal dull.
- 1 = There are very few appropriate verb tenses, structure and vocabulary, rendering the majority of the entries virtually incomprehensible.

PRIMARY TRAIT-BASED SCALE FOR ART HISTORY ASSIGNMENT

By Christine Havice, Art History, University of North Carolina at
Charlotte

Assignment: For a hypothetical "newspaper" in the ancient
Assyrian empire, write a news report on the unveiling of the
palace relief "Ashurnasirpal II at War."

Criteria for Evaluation (Possible 15 points):

- 14-15 Describes work concisely;
 Rrelates message to artist's choices and use of various
 devices;
 Develops how message affects beholder;
 Considers audience in writing;
 Clearly organized and presented;
 Well imagined;
 Legible;
 No problems with mechanics, grammar, spelling or
 punctuation
- 11-13 Good description;
 Relates message to artist's choices and use of various
 devices;

Some consideration of affect on beholder;
 Considers audience;
 Perhaps could be better organized or presented;
 Adequately imagined;
 Legible;
 Few problems with mechanics, grammar, spelling, or
 punctuation.

8-10 Adequate description;
 Less thorough analysis of how artist conveys message and
 devices;
 Audience not necessarily kept in mind;
 Needs significant improvement in organization or
 presentation;
 Needs better imagination;
 Problems with legibility, mechanics.

6-7 Lacking substantially in either description or analysis;
 Problems with audience, organization,
 presentation, or mechanics interfere with
 understanding

0-5 Substandard on more than two of these: description,
 analysis or choices and devices, effects on beholder
 Major problems with audience, organization, presentation,
 or mechanics

PRIMARY TRAIT-BASED SCALE FOR FIELD OBSERVATION IN CAREER PLANNING

By Cheryl Cates, Professional Practice, Univ. of Cincinnati

Assignment: to research a career field in which the student is interested and to write a report

CRITERIA AREAS: Content/Format

- 5 points Report offers information that relates to the assignment and leads the reader through the information in a logical and interesting way.
- 4 points Report covers many of the content issues required by the assignment but is not arranged in a format that provides for interesting reading.
- 3 points Information is incomplete, confusingly chosen and arranged in such a way that it is difficult to judge how it relates to the assignment
- 2 points Information does not relate to the assignment
- 1 point Information is absent

Research

- 5 points Report sufficiently answers most of the questions listed in the assignment through both secondary (library) research and formal interview
- 4 points Student answers at least half the questions through both secondary research and informational interview.
- 3 points Student makes an attempt through secondary research and informational interview.
- 2 points Student conducts no secondary research and does little to address questions asked in the assignment
- 1 point Student has in no way answered the relevant questions (no secondary research and no interview)

Interview

- 5 points Student conducts a formal, in-person interview with someone s/he considers to be a potential employer
- 4 points Student conducts an informal or telephone interview with someone that s/he considers to be a potential employer.
- 3 points Student conducts a formal interview with another student (senior) in his/her discipline
- 2 points Student conducts an informal interview with another students (e.g. catches a senior after co-op information night and asks a few quick questions)
- 1 point Student did not conduct a personal interview for the project

INDIANA UNIVERSITY OF PENNSYLVANIA
DEPARTMENT OF NURSING
NU 403

Prof. Maxine Smatlack

Clinical Evaluation of Psychiatric Nursing

Name _____

Objectives and Expected Behaviors	Criteria Weight in Points	Number of Points		Justification by Student
		Student Opinion	Instructor Opinion	
1. Utilizing the nursing process, demonstrates the use of verbal and nonverbal communication skills in interacting effectively with clients in assigned psychiatric setting by initiating, maintaining, and terminating a nurse-client relationship using appropriate techniques and therapeutically using own personality in other nurse-client interactions.				
A. Uses timing and techniques appropriate to initiation stage at proper time.	2			
B. Interacts in a therapeutic manner during the working phase of the nurse-client relationship.	2			
C. Uses correct format for in-depth process recordings following suggested guidelines provided by instructor	10			
D. Analyzes own emotional reaction with depth and frequency (autognosis)	2			
E. Plans for terminations of the relationship with client using appropriate techniques	2			
F. Actively listens to clients	2			

Objectives and Expected Behaviors	Criteria Weight in Points	Number of Points		Justification by Student
		Student Opinion	Instructor Opinion	
G. Establishes and maintains therapeutic relationships, not social relationships	2			20
H. Consistently demonstrates safety in nursing actions, including assessing appropriately for suicide when indicated	2			
Applies basic principles derived from nursing theory and biological and behavioral sciences in utilizing the nursing process and uses psychiatric principles appropriately.				
A. Develops an organized and concise nursing care plan following suggested format utilizing assessment, planning/analysis, implementation, and evaluation	10			
B. Helps facilitate the development of decision-making skills in clients	2			
C. Selects appropriate therapeutic activities for clients and encourages and participates with clients during activities	2			
D. Applies principles of drug therapy and assesses drug effects utilizing nursing implications (Share with peers during Case Presentation)	2			
E. Uses theory to distinguish between adaptive and maladaptive responses	2			
F. Uses research findings pertinent to the client's behavior	2			

Objectives and Expected Behaviors	Criteria Weight in Points	Number of Points		Justification by Student
		Student Opinion	Instructor Opinion	
3. Exhibits competency in participating as an active member of the health team and collaborating with staff and peers.				
A. Effectively communicates with members of the team by seeking appropriate consultation with others and sharing pertinent information rather than working alone	2			
B. Consistently uses tact in difficult situations especially when acting as an advocate for client	2			
C. Facilitates participation of peers and willingly shares new information with peers during clinical conferences	2			
D. Promotes a pleasant sharing rapport between IUP and the agency staff (Note specifics in log)	2			
E. Actively participates with peers in planning and carrying out a therapeutic group experience for clients (ex. social skills training group, assertiveness training group, discharge planning group, medication group, etc.)	10			
4. Develops personally and professionally through self-understanding gained from learning experiences.				
A. Explains own behavior noting strengths and weaknesses and initiates change in self where desirable (Note in log) (Content is not evaluated. Credit is received by noting the manner in which you are striving to grow personally or how you are promoting self-nurturance. See <u>A Potpourri for Personal Growth</u> by instructor for suggestions.)	2			

Objectives and Expected Behaviors	Criteria Weight in Points	Number of Points		Justification by Student
		Student Opinion	Instructor Opinion	
B. Consistently uses library resources and appears highly motivated and interested	2			
C. Presents pertinent, valid information from Case Study using a variety of reliable sources while utilizing leadership principles (Use criteria provided by instructor for presentation)	10			
D. Graciously and consistently accepts supervision, guidance, and constructive criticism	2			
E. Accepts responsibility for self-learning and self-evaluation by being properly prepared for clinical	2			
F. Consistently seeks learning opportunities on unit	2			
G. Makes self easily available for clients	2			
H. Conveys a positive, constructive attitude at all times	2			
I. Is consistently prompt, reliable and dependable	2			
J. Uses instructor and peers as a resource to facilitate learning	2			
5. Demonstrates mastery of all practicum objectives				
A. Quiz (last day)	10			
TOTAL	100			

Please keep a daily clinical journal/log including a brief description of your day, your feelings, an overview of sessions with clients, problems encountered, etc. Submit the journal to instructor for weekly review. Keep this evaluation form (which will be filed with your permanent record) up to date and submit it along with your journal and all assignments for final review the last clinical day.

Other questions to consider as you use your journal include, "What is the best thing that could happen during this rotation? The worst? What do you still need/want to know? What do you think about psychiatric nursing? Are you aware of your strengths and weaknesses? What are you doing about them? What reinforces your sense of worth? What kind of help do you need? What new skills are you learning? What is it like to initiate a relationship with your assigned client? How do you behave when you're anxious? Angry? How does your client show anxiety? Anger? What are your feelings on terminating your relationship with your client?

Faculty Comments:

Overall Clinical Grade _____

Student Comments:

Date _____ Faculty Signature _____

Date _____ Student Signature _____

HKS:dkm

1991

PRIMARY TRAIT SCORING SCALE FOR TEAM PROJECT IN MANAGEMENT

Assignment: Teams study actual firms, analyze problems, and recommend.
Lawrence Fredendall, Management, Clemson University

Firm Name: _____

Team's Customer Satisfaction Skills		
Punctuality Some team members missed appointments or did not return phone calls. 0 1 2 3	All team members arrived on time for appointments and returned all phone calls promptly. 4 5 6 7	All team members were always early. 8 9 10
Courtesy Some team members were not respectful of some firm employees. 0 1 2 3	All team members were always courteous and respectful of all our employees. 4 5 6 7	All our employees felt that the team members were very respectful, courteous and fully elicited their ideas. 8 9 10
Appearance Sometimes some team members were inappropriately dressed. 0 1 2 3	All team members were always appropriately dressed. 4 5 6 7	All team members adjusted their attire to match the attire used in our firm. 8 9 10
Enthusiasm Some team members did not seem interested in the project. 0 1 2 3	All team members appeared enthusiastic and eager to work on the project. 4 5 6 7	The enthusiasm of the team members to complete the project was contagious and inspired others at our firm. 8 9 10
Communication Some team members did not communicate clearly during meetings or phone calls. 0 1 2 3	The team members always communicated clearly with employees during meetings and phone calls. 4 5 6 7	The team members always made an extra effort to make sure they understood us and that we understood them during meetings and phone calls. 8 9 10
Team's Project Management Skills		
Plan Awareness No team member ever presented a plan to firm about how to complete the project. 0 1 2 3	The team presented a plan but some team members did not seem to follow it. 4 5 6 7	All the team members seemed to be aware of the plan and following it. 8 9 10
Problem Definition The team's definition of the problem is absent or vague. 0 1 2 3	The problem is clearly identified. Data is provided measuring the scope of the problem. 4 5 6 7	The problem's importance and relationship to the firm's goals is clearly stated. 8 9 10
Plan Feasibility The plan that was presented was not feasible. 0 1 2 3	The plan that was presented was feasible but needed improvement. 4 5 6 7	The plan was feasible and was regularly updated as necessary during the project. 8 9 10
Plan Presentation A written plan was not presented. 0 1 2 3	A clear plan with a Gantt chart was presented. 4 5 6 7	All necessary activities and time estimates were clearly shown on the Gantt chart. 8 9 10

Data Analysis

Data Collection The team did not use any apparent method to determine which data to gather. 0 1 2 3	The data to collect was gathered in a systematic manner. 4 5 6 7	The team was able to explain clearly why it collected certain data and did not collect other data. 8 9 10
Collection Method The team's data collection method was haphazard and random. 0 1 2 3	The team had a clear plan they followed to collect the data. 4 5 6 7	The data collection methods simplified the data analysis. 8 9 10
Analysis Tools The team used no tools to analyze the data or the tools seemed to be randomly selected. 0 1 2 3	The team used all the appropriate tools for data analysis. 4 5 6 7	The team fully explained why it selected certain tools and did not use others for data analysis. 8 9 10
Results Analysis The team did no evaluation of the validity of its data analysis results. 0 1 2 3	The team validated its results by checking with the appropriate staff for their insight. 4 5 6 7	The team validated its results by conducting a short experiment. 8 9 10

Recommendations

Clarity The team had no recommendations or they were not understandable. 0 1 2 3	The team's recommendations were reasonable given the problem examined. 4 5 6 7	The recommendations logically emerged from the problem statement and data analysis. 8 9 10
Impact The impact of implementing the recommendation was not examined or was completely wrong. 0 1 2 3	The impact of implementing the recommendations that the team suggested was clearly given and was reasonable. 4 5 6 7	The proposed impact of the recommendations if implemented was very well documented. 8 9 10
Implementability These recommendations could never be implemented or are too vague to implement. 0 1 2 3	The recommendations are specific enough to serve as the basis for decisions by management. 4 5 6 7	The recommendations included an implementation plan that is feasible to implement. 8 9 10

Qualities of Paper

Executive Summary There was no executive summary. 0 1 2 3	The executive summary was well written, capturing key goals, problems, analysis steps and recommendations. 4 5 6 7	The executive summary is as good as those usually presented in our firm. 8 9 10
Organization The paper is difficult to follow. 0 1 2 3	The paper is easy to follow and to read. 4 5 6 7	All the relationships among the ideas are clearly expressed by the sentence structures and word choice. 8 9 10

Writing Style The paper is sloppy, with no clear direction and looks as if it was written by several people. 0 1 2 3	The format is appropriate with correct spelling, good grammar, good punctuation and appropriate transition sentences. 4 5 6 7	The paper is well written and is appropriate for presentation in this firm. 8 9 10
Team Members Personal Skills		
Self Confidence Some team members mannerisms made them look as if they were not confident of their abilities. 0 1 2 3	All the team members always seemed confident. 4 5 6 7	All team members were confident and would be able to lead in this organization. 8 9 10
Knowledge Some team members did not seem to understand what they were doing. 0 1 2 3	All the team members seemed to have adequate knowledge or ability to learn the necessary material. 4 5 6 7	All team members were proactive about identifying skills they needed and obtaining them in advance. 8 9 10
Reliability Some team members did not follow through with their commitments. 0 1 2 3	All team members fulfilled all commitments they made to staff here. 4 5 6 7	All team members not only fulfilled all commitments they made, but did additional work. 8 9 10
Your Satisfaction with the Project		
Project Completion The team did not do a reasonable amount of work on the project. 0 1 2 3	The team completed a reasonable amount of work on the project. 4 5 6 7	The work the team completed more than met my expectations. 8 9 10
Project Recommendations The recommendations provide no insight. 0 1 2 3	The recommendations are useful and will be examined in detail by our firm. 4 5 6 7	The recommendations will be implemented in full or part. 8 9 10
Satisfaction We are not satisfied. 0 1 2 3	We are completely satisfied. 4 5 6 7	We are more than satisfied, we are delighted with the team's work! 8 9 10

Your Name: _____

Would you sponsor another team project? _____

What do you recommend that the Department do to improve the project? _____

PRIMARY TRAIT SCORING SCALE FOR BIOLOGY

INSTRUCTOR: Virginia Johnson Anderson, Dept. of Biology, Towson State University

ASSIGNMENT: In an upper class biology class, students design an original scientific experiment, carry it out, and write it up in scientific report format

from Virginia Johnson Anderson and Barbara E. Walvoord, "Anderson's Biology Class." In Barbara E. Walvoord, Lucille McCarthy, and others. Thinking and Writing in College. Urbana: Nat'l Council Teachers of English, 1991.

Appendix A

Primary Trait Analysis for Anderson's Biology Class

This appendix contains two items: the primary trait scoring sheet developed by Anderson and used by outside raters, and scores for the 1983 and 1986 classes (Table A.1). See pp. 35-36 for explanation of the primary trait analysis procedure.

Primary Trait Scoring Sheet for Anderson's Class

Please evaluate the original research paper and assign an appropriate number of points for each section. In each category, higher numbers represent greater mastery. Please do not award partial scores.

Title

- 5 - Is appropriate in tone and structure to science journal; contains necessary descriptors, brand names, and allows reader to anticipate design.
- 4 - Is appropriate in tone and structure to science journal; most descriptors present; identifies function of experimentation, suggests design, but lacks brand names.
- 3 - Identifies function, brand name, but does not allow reader to anticipate design.
- 2 - Identifies function or brand name, but not both; lacks design information or is misleading.
- 1 - Is patterned after another discipline or missing.

Introduction

- 5 - Clearly identifies the purpose of the research; identifies interested audience(s); adopts an appropriate tone.
- 4 - Clearly identifies the purpose of the research; identifies interested audience(s).
- 3 - Clearly identifies the purpose of the research.
- 2 - Purpose present in Introduction, but must be identified by reader.
- 1 - Fails to identify the purpose of the research.

Scientific Format Demands

- 5 - All material placed in the correct sections; organized logically within each section; runs parallel among different sections.
- 4 - All material placed in correct sections; organized logically within sections, but may lack parallelism among sections.
- 3 - Material placed in the right sections, but not well organized within the sections; disregards parallelism.
- 2 - Some materials are placed in the wrong sections or are not adequately organized wherever they are placed.
- 1 - Material placed in wrong sections or not sectioned; poorly organized wherever placed.

Methods and Materials Section

- 5 - Contains effectively, quantifiably, concisely organized information that allows the experiment to be replicated; is written so that all information inherent to the document can be related back to this section; identifies sources of all data to be collected; identifies sequential information in an appropriate chronology; does not contain unnecessary, wordy descriptions of procedures.
- 4 - As above, but contains unnecessary information, and/or wordy descriptions within the section.
- 3 - Presents an experiment that is definitely replicable; all information in document may be related to this section; however, fails to identify some sources of data and/or presents sequential information in a disorganized, difficult pattern.
- 2 - Presents an experiment that is marginally replicable; parts of the basic design must be inferred by the reader; procedures not quantitatively described; some information in Results or Conclusions cannot be anticipated by reading the Methods and Materials section.
- 1 - Describes the experiment so poorly or in such a nonscientific way that it cannot be replicated.

Nonexperimental Information

- 5 - Student researches and includes price and other nonexperimental information that would be expected to be significant to the audience in determining the better product, or specifically states nonexperimental factors excluded by design; interjects these at appropriate positions in text and/or develops a weighted rating scale; integrates nonexperimental information in the Conclusions.

- 4 - Student acts as above, but is somewhat less effective in developing the significance of the nonexperimental information.
- 3 - Student introduces price and other nonexperimental information, but does not integrate them into Conclusions.
- 2 - Student researches and includes price effectively; does not include or specifically exclude other nonexperimental information.
- 1 - Student considers price and/or other nonexperimental variables as research variables; fails to identify the significance of these factors to the research.

Designing an Experiment

- 5 - Student selects experimental factors that are appropriate to the research purpose and audience; measures adequate aspects of these selected factors; establishes discrete subgroups for which data significance may vary; student demonstrates an ability to eliminate bias from the design and bias-ridden statements from the research; student selects appropriate sample size, equivalent groups, and statistics; student designs a superior experiment.
- 4 - As above, but student designs an adequate experiment.
- 3 - Student selects experimental factors that are appropriate to the research purpose and audience; measures adequate aspects of these selected factors; establishes discrete subgroups for which data significance may vary; research is weakened by bias or by sample size of less than 10.
- 2 - As above, but research is weakened by bias and inappropriate sample size.
- 1 - Student designs a poor experiment.

Defining Operationally

- 5 - Student constructs a stated comprehensive operational definition and well-developed specific operational definitions.
- 4 - Student constructs an implied comprehensive operational definition and well-developed specific operational definitions.
- 3 - Student constructs an implied comprehensive operational definition (possibly less clear) and some specific operational definitions.
- 2 - Student constructs specific operational definitions, but fails to construct a comprehensive definition.
- 1 - Student lacks understanding of operational definition.

Controlling Variables

- 5 - Student demonstrates, by written statement, the ability to control variables by experimental control and by randomization; student

makes reference to, or implies, factors to be disregarded by reference to pilot or experience; superior overall control of variables.

- 4 - As above, but student demonstrates an adequate control of variables.
- 3 - Student demonstrates the ability to control important variables experimentally; Methods and Materials section does not indicate knowledge of randomization and/or selected disregard of variables.
- 2 - Student demonstrates the ability to control some, but not all, of the important variables experimentally.
- 1 - Student demonstrates a lack of understanding about controlling variables.

Collecting Data and Communicating Results

- 5 - Student selects quantifiable experimental factors and/or defines and establishes quantitative units of comparison; measures the quantifiable factors and/or units in appropriate quantities or intervals; student selects appropriate statistical information to be utilized in the results; when effective, student displays results in graphs with correctly labeled axes; data are presented to the reader in text as well as graphic forms; tables or graphs have self-contained headings.
- 4 - As 5 above, but the student did not prepare self-contained headings for tables or graphs.
- 3 - As 4 above, but data reported in graphs or tables contain materials that are irrelevant and/or not statistically appropriate.
- 2 - Student selects quantifiable experimental factors and/or defines and establishes quantitative units of comparison; fails to select appropriate quantities or intervals and/or fails to display information graphically when appropriate.
- 1 - Student does not select, collect, and/or communicate quantifiable results.

Interpreting Data: Drawing Conclusions/Implications

- 5 - Student summarizes the purpose and the findings of the research; student draws inferences that are consistent with the data and scientific reasoning and relates these to interested audiences; student explains expected results and offers explanations and/or suggestions for further research for unexpected results; student presents data honestly, distinguishes between fact and implication,

and avoids overgeneralizing; student organizes nonexperimental information to support conclusion; student accepts or rejects the hypothesis.

- 4 - As 5 above, but student does not accept or reject the hypothesis.
- 3 - As 4 above, but the student overgeneralizes and/or fails to organize nonexperimental information to support conclusions.
- 2 - Student summarizes the purpose and findings of the research; student explains expected results, but ignores unexpected results.
- 1 - Student may or may not summarize the results, but fails to interpret their significance to interested audiences.

Table A.1 Primary Trait Scores for Anderson's 1983 and 1986 Classes

	1983	1986	P Values*
Title	2.95	3.22	.24
Introduction	3.18	3.64	.14
Scientific Format	3.09	3.32	.31
Methods and Materials	3.00	3.55	.14
Non-Experimental Info	3.18	3.50	.24
Designing the Experiment	2.68	3.32	.07
Defining Operationally	2.68	3.50	.01
Controlling Variables	2.73	3.18	.10
Collecting Data	2.86	3.36	.14
Interpreting Data	2.90	3.59	.03
Overall	2.93	3.42	.09

*P values: The probability values calculated were the P values of a T distribution with 20 degrees of freedom. The values were determined by interpolation between standard tabulated values for the T distributions (see Fisher and Yates 1973; Table F.3 in Dayton and Stunkard 1971).

3. EVALUATING STUDENT WORK FAIRLY AND CONSISTENTLY AGAINST THE CRITERIA

Assignment: To conduct an original scientific experiment comparing two commercially available products on at least four criteria, and to write up the experiment in scientific report format.

Below is the "title" portion of the PTA scale for the assignment.

Trait: Title

- 5 - Is appropriate in tone and structure to science journal
Contains all necessary descriptors
Contains necessary brand names
Allows reader to anticipate design
- 4 - Is appropriate in tone and structure to science journal
Contains most descriptors
May lack brand names
Identifies function of experimentation
Suggests design
- 3 - Identifies function and brandname, but does not allow
reader to anticipate design.
- 2 - Identifies function or brandname, but not both
Lacks design information or is misleading.
- 1 - Is patterned after another discipline or missing.

Now try using this PTA scale to score each of following titles written by Anderson's students. (All titles are under 25 words as the assignment sheet stated.) Please use whole scores--no halves!

- A. *A Comparison of Prell and Suave Shampoo*
- B. *The Battle of the Suds: Budwiser and Weiderman Beer*
- C. *Would You Eat Machine-Made or Home-made Cookies?*
- D. *A Comparison of ARIZONA and SNAPPLE ICE TEA FOR pH, Residue, Light Absorbancy, and Taste*
- E. *Research to Determine the Better Paper Towel*
- F. *A Comparison of Amway Laundry Detergent and Tide Laundry Detergent for the Characteristics of Stain Removal, Fading, Freshness, and Cloth Strength*

4. USING GRADING/RESPONDING TO IMPROVE TEACHING AND LEARNING

1. How would you now change the wording of the PTA scale to make it more precise?
2. How would you teach so as to improve student's titles?

TEN TEACHING STRATEGIES SUGGESTED BY RESEARCH

1. Have students write about and discuss what they are learning

"Learning is not a spectator sport. Students do not learn much just by sitting in class listening to teachers, memorizing prepackaged assignments, and spitting out answers. They must talk about what they are learning, write about it, relate it to past experiences, apply it to their daily lives. They must make what they learn part of themselves." (Chickering and Gamson, 1987; p. 3)

2. Encourage faculty-student contact, in and out of class.

"Frequent interaction with faculty members is more strongly related to satisfaction with college than any other type of involvement, or, indeed, any other student or institutional characteristic." (Astin, 1985, pp. 133-151)

3. Get students working with one another on substantive tasks, in and out of class.

Students' academic performance and satisfaction at college are tied closely to involvement with faculty and other students around substantive work. (Light, 1992, p. 18)

4. Give prompt and frequent feedback to students about their progress.

5. Communicate high expectations.

6. Make standards and grading criteria explicit.

7. Help students to achieve those expectations and criteria

8. Respect diverse talents and ways of learning.

9. Use problems, questions, or issues, not merely content coverage, as points of entry into the subject and as sources of motivation for sustained inquiry.

"Students learn what they care about and remember what they understand." (Erickson 1984, p. 51, cited Bonwell & Eison, Executive Summary, n.p.)

10. Make courses assignment-centered rather than merely text- and lecture-centered. Then focus on helping students successfully complete the assignments.

(Astin, 1985; Bonwell and Eison, 1991; Chickering and Gamson, 1987; Erickson, 1984; Frost, 1991; Kurfiss, 1987; Light, 1992; Pascarella and Terenzini, 1991; Penrose, 1992.)

YES, BUT... FOUR COMMON MYTHS

1. MYTH: YOU CAN'T DO THIS STUFF IN LARGE CLASSES

RESEARCH SUGGESTS:

"The method of instruction used, not the size of the class, seems to be the major ingredient of learning."
(Lewis & Woodward 1984, cited Bonwell and Eison, 1991)

2. MYTH: STUDENT EVALUATIONS ARE LOW IF THE TEACHER IS TOO DEMANDING

RESEARCH SUGGESTS:

There is no correlation between student evaluations and the perceived difficulty of the course.

Students value:

Sensitivity and concern with class level and progress
Preparation and organization
Knowledge of subject
Stimulation of interest in the subject
Enthusiasm
Clarity and understandability
Availability and helpfulness
Concern and respect for students
Perceived outcomes or impact of instruction
Fairness; quality of the tests
(Feldman, 1988)

3. MYTH: STUDENTS PREFER LECTURE

RESEARCH SUGGESTS: They don't.

(Bonwell and Eison, 1991. Executive Summary, n.p.)

4. MYTH: YOU CAN'T DO GOOD RESEARCH AND ALSO BE A GOOD TEACHER

RESEARCH SUGGESTS: There is a very small positive correlation--that is, good researchers tend also to be good teachers.
(Feldman, 1987)

BIBLIOGRAPHY

- Astin, Alexander. (1985). Achieving Educational Excellence. San Francisco: Jossey-Bass. Based on his own and others' research, proposes the "theory of student involvement" which posits involvement as the key to learning.
- Bonwell, Charles C., & Eison, James A. (1991). Active learning: Creating excitement in the classroom. ASHE-ERIC Higher Education Report No. 1. Washington, DC: The George Washington University, School of Education and Human Development. Highly useful review of the literature and suggestions about implementing "active learning," defined as "instructional activities involving students in doing things and thinking about what they are doing" (Executive Summary, n.p.).
- Chickering, Arthur W., and Gamson, Zelda F. (1987). Seven principles for good practice in undergraduate education. The Wingspread Journal. Available from the Johnson Foundation, P.O. Box 547, Racine, WI 53401-0547. Reports interpretations of the research in the form of 7 principles, shaped by a group of national experts.
- Feldman, Kenneth A. (1987). Research productivity and scholarly accomplishment of college teachers as related to their instructional effectiveness: A review and exploration. Research in Higher Education, 26, 227-298. Meta-analysis of the available research indicates a slight positive correlation between research and teaching effectiveness, as measured by student evaluations. Exploration of the various studies to identify factors that may illuminate the relationship between research productivity and teaching.
- Feldman, Kenneth A. (1988). Effective college teaching from the students' and faculty's view: matched or mismatched priorities? Research in Higher Education, 28, 291-?. Meta-analysis of the body of research indicates both groups have similar priorities.
- Frost, Susan H. (1991). Contact, involvement, and persistence: Contributors to students' success. In Academic advising for student success: A system of shared responsibility. (pp. 9-13 and references, pp. 77-91). ASHE-ERIC Higher Education Report No. 3. Washington, DC: The George Washington University, School of Education and Human Development. Short summary of contributors to student success; useful bibliography.
- Kurfiss, Joanne (1987). Critical thinking. ASHE-ERIC Higher Education Report. Washington, DC: The George Washington University, School of Education and Human Development. A summary of research and practice in critical thinking for the

novice. Pp. 88-89 summarize the research on teaching methods that enhance critical thinking, which Kurfiss defines broadly as the application of reason to problems for which there is no single "right" answer and/or for which not all necessary information is available.

Light, Richard J. (1992). The Harvard assessment seminars: Second report. Harvard University School of Education. A large study, with 11 data sources, of faculty and students at Harvard and 24 other institutions. Reports findings: the overarching finding--involvement is the key.

Pascarella, Ernest T., & Terenzini, Patrick T. (1991). How college affects students. San Francisco: Jossey-Bass. A literature review. Concludes involvement is the key. But lots of detail about various outcomes and the factors that appear to encourage them.

Penrose, Ann M. (1992). To write or not to write: Effects of task and task interpretation on learning through writing. Written Communication, 9, 465-500. Useful summary of cognitive benefits of learning-to-write teaching methods supports the claim that writing assignments of certain kinds can help learners engage with the material, discover and articulate connections and relationships, and engage in complex, original, higher-order thinking. However, the kinds of writing required and the students' interpretation of the assigned task can greatly influence outcomes.

Loyola College

Hs 101

NAME; _____

EXERCISE ASSIGNMENT: PRIMARY SOURCES, LOUIS XIV

Due: Tuesday, Sep. 24

10 points

For the readings in TKW, pp. 1-35, note the following, according to the categories described in the handout on Evaluating Primary Sources. Use the back if necessary.

1. What is the issue at stake in this chapter?
2. Bishop Bossuet -- who was he and when did he write?
How can his material be used as evidence on the issue at stake?

Exercises	Skills
STAGE 1: SHOWING HOW A SINGLE READING CAN BE USED AS EVIDENCE	
Author's Purpose and Summary: Week 1 What do you know about the textbook author? What can you guess? When was the text written? published? List its subheadings and summarize a chapter.	Recognize that history is written by people who reflect their cultural biases. Pay attention to author's subheads. Summarize.
Narrative of the English Civil War Write a one-paragraph narrative incorporating eight terms provided by Brellhan.	Summarize events accurately.
Analysis of Anarchic Episodes: Week 2 From eyewitness accounts of 17th-century riots, find evidence of the following factors: economic, political, social, religious, etc.	Become familiar with various analytical categories, and use them to categorize evidence.
Primary Sources on Louis XIV: Week 3 What is the issue at stake in this collection of documents? Who was the author of each document? When did he/she live? How can his/her material be used as evidence on this issue? [Questions repeated for each source]	Understand how "primary source" material can be used as evidence by stating connections between eyewitness material and opinions on the historical issue.
Secondary Sources on Louis XIV: Week 4 What is the issue at stake? Who is the author and when did he/she write? What is his/her position on the issue? How does she/he back it up?	Understand what a "secondary source" is. Use secondary sources as models for shaping historical arguments. Understand how arguments are backed by evidence.
<i>continued</i>	
Figure 4.6 (cont.)	
STAGE 2: CONTRIBUTING TO AN ARGUMENT ON AN ASSIGNED HISTORICAL OPINION	
Louis XIV Debate Worksheet Prepare notes in support of your assigned position on whether or not Louis was a "good king" plus counterarguments against the opposing opinion.	Understand that history is argument about the past. Collect evidence for a position. Take notes that allow easy access to evidence during debate.
Second Chance on Louis XIV Debate Write two points that were not discussed in the class debate. For extra credit say why you did not say them in the debate.	Learn skills and points not used in the debate.
STAGE 3: CHOOSING ONE'S OWN POSITION ON A HISTORICAL ISSUE AND BRIEFLY DEFENDING IT WITH EVIDENCE	
Best Solution to Anarchy Essay: Week 5 In a one-paragraph essay, state which solution to the problem of 17th-century anarchy—French or English—you personally find more realistic and attractive. Try to explain why you feel the way you do and to back your feelings with evidence.	Choose one's own position. Address the relevant issue. Support the position with evidence.
STAGE 4: CHOOSING ONE'S OWN POSITION AND DEFENDING IT IN A FULL ESSAY, INCLUDING COUNTERARGUMENTS AND ANSWERS TO COUNTERARGUMENTS	
Essay 1: Week 7 Select from among 3 essay questions: 1. The Loyollana question. 2. Whose theories about the French Revolution—Burke's or Paine's—were more "valid"? 3. From class readings by Burke and Paine, infer their views, pro and con, of Louis XIV's reign.	Use several techniques for historical argument: analyzing problem, stating position, supporting it with evidence, answering counterarguments.

Figure 4.6. The four stages of learning to use discipline-based methods to arrive at a position and to support it with evidence

EXAMPLE 1: Helping students understand mathematical concepts

Math teacher Nan Adler, at the University of Cincinnati, University College, has students write short definitions of concepts. Below are 3 consecutive entries from a typical student in a business calculus class. (Handwritten comments are Nan's corrections)

ENTRY 1

Derivative: The rate of change of one variable ^{with} in respect to another.

ex.: $\frac{\Delta y}{\Delta x}$ -or- $\frac{f(x + \Delta x) - f(x)}{\Delta x}$

For f, the variable plus the change of a variable over the change of variable x minus the variable x equals the derivative. *this is how to compute it - not it is.*

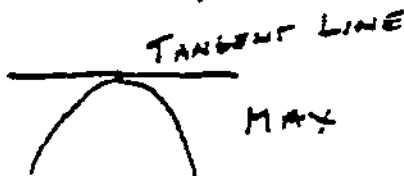
ENTRY 2

A derivative measures the change in something. A derivative is also synonymous with the word slope. For a given situation the slope can be used to determine the change of any number of variables. For example a firm can use a slope formula to predict future sales profits.

OK - but how can it use the slope formula to predict future profits!

ENTRY 3

The derivative is the slope of a line, or the rate of change of one variable with respect to another. It can be used to find maximum and minimum x values by setting the derivative equal to zero. We do this because the max or min point on a curve has a derivative of 0. (The tangent line there is horizontal and has a slope of 0.)



This student has really made strides in her understanding of the derivative. She went from describing how to compute it to a deeper and deeper explanation of the concept.

BREIHAN'S METHODS: IN-CLASS DEBATES

DEBATE TOPICS

Six teams of 5-6 students each are assigned a "side" to argue, with 1 point awarded for arguments, 2 points for counterarguments. In some debates the teams are grouped, depending on how many "sides" there are to argue.

1. What factors — political, economic, social, religious, cultural, or institutional — were *most* important in causing 17th-century anarchy?
2. Which government system was a better solution to this anarchy — English constitutional monarchy or French Absolutism?
3. Were the French Revolutionaries of 1789-92 too extreme, or were their actions necessary?
4. Were the Industrial Revolution in England a blessing, or a curse to the working class of that era?
5. As workers in a Prussian factory in 1860, which ideology — liberalism, nationalism, or socialism — is the best one to adopt in seeking change?
6. At the Paris Peace conference in 1919, Britain, France, Germany, Serbia, Austria-Hungary, and Imperial Russia debate about who was most at fault for the outbreak of World War I.
7. At another hypothetical peace conference, the United States and Soviet Union argue who was most responsible for the beginning of the Cold War.

BREIHAN'S METHODS: DRAFT RESPONSE

Essay questions were known to students from the beginning of the course.

Students drafted the essays in class.

Breihan responded to these drafts.

After receiving Breihan's response, students had to revise in-class drafts of Essay #1; revision was voluntary after Essay #2; revision was not possible after Essay #3 because it was written during the exam period.

Breihan's draft response included:

The checksheet (next page) with Breihan's check mark on it
(Students had these checksheets from the beginning of the course.)

Marginal comments

End comment of about 1/2 - 3/4 typed page

Breihan's reading outline of the essay

Individual conference (mandatory for Essay #1; optional for Essay #2)

Marginal and end comments were consistent and focused.*

*Seventy-six percent of Breihan's comments that discussed meaning changes (rather than merely surface changes like spelling) concerned three main aspects of disciplinary competence:

- stating a position on the issue at hand
- backing the position with specific evidence
- raising and answering counter arguments

(To classify comments, we adapted Faigley and Witte's (1981, 1984) designation: "meaning changing" refers to comments that called for revision that would change the meaning of the revised passage. The term excludes mere surface revisions such as correcting spelling or substituting one word for another of similar meaning.)

Mr.

This essay puts forward a very clear thesis that a "strong government" is needed to end anarchy. After reviewing several alternatives, you end by saying that a mixed government on the English model would work best for Loyoliana.

What is missing here is argument and evidence in favor of the thesis that you state so clearly. WHY would this system work so well? Have you any specific evidence? What about the arguments of Paine, Bossuet, etc.? What about the fact that the Hanoverian kings were not strong? that England had no written constitution?

In revising this, you should try to provide more evidence for your arguments and try to answer these counterarguments.

double
comment on
the revision
→

Much better at using specific examples. But your beginning section - defending Louis XIV's absolutism, seems to contradict your final recommendation of mixed govt. -: ?
B

BREIHAN'S STUDENTS' SUCCESS IN LEARNING CRITICAL THINKING IN HISTORY

STATING A POSITION

-100% of students*, by Essay #1 in seventh week, stated a position on the issue.

BACKING THE POSITION WITH SPECIFIC EVIDENCE

-On in-class draft of Essay #1, only 21% of the students* received grade of "C" or lower in part because they had insufficient specific historical material used as evidence (they had less than 30% of total words devoted to specific historical material**). By Essay #3, this 21% had a mean of 61% specific historical material--same as the mean for a sample of 5 "A" essays. In other words, by Essay #1, 79% of the students were supporting their views with specific historical evidence. The remaining 21% had learned to do so by Essay #3.

An analysis of the connections among ideas in the top three levels of hierarchy of a sample of ten essays at all levels of success showed that NO students used chronology as the only connector. Instead, one idea was used as an illustration, description, analogy, contrast, comparison, or counter argument to another. (We used Bonnie J. F. Meyer's system for analyzing connections among ideas.) In other words, Breihan's students were writing arguments, not merely reciting historical narratives.

RAISING AND ANSWERING COUNTER ARGUMENTS

-47% of students on in-class drafts of Essay #1 and 58% of students on in-class Essay #3 (final exam):

- raised at least one counter argument relevant to the stated position

AND

- responded to that counterargument with further argument and specific evidence

*A sample of 19 students on whom we had the most complete data and who, as a group, resembled the total class in gender, age, race, verbal SAT scores, and course grades.

**We defined "specific historical material" as historical data that was sufficiently specific to be placed in time and space. That is, "kings often raised taxes" was not specific; "Louis XIV raised taxes in the year X" was specific.

THESE SUCCESSES CONTRAST WITH OTHER STUDIES:

-In another class we studied, upperclass business students were specifically asked, on a written assignment, to choose a business site and to back their choice: 16% summarized the textbook without choosing a site, and another 11% tacked an unrelated decision onto a paper that was mostly textbook summary.

-In the 1988 National Assessment of Education Progress, when eleventh graders were asked to take a stand and argue their position against an opposing point of view, nearly 33 percent did not state a position. Only 21% even briefly refuted some aspects of the opposing ideas (Applebee et al, 1990, p. 34).

-In a study by Perkins (1985), high school and college students offered only a few lines of argument to support, and far fewer in opposition to, their oral arguments on current issues.

-Cooper et al (1984) asked a group of 400 SUNY at Buffalo entering freshmen to write persuasive essays during orientation week, then asked a group of SUNY teachers to rate those essays holistically. In a sample of 50 essays, only 16 percent of the students addressed an opposing point of view on the issue. Yet counterargument was important to the raters.

STUDENTS' COMMENTS INDICATE THEY WERE CONSCIOUS OF LEARNING HOW TO ARGUE

- "I haven't done things like this before. In high school we took the answers straight from the book. I am not in the habit of developing arguments." -Tracy Wagner, log

- "I feel pretty good about the work done so far. It teaches you to think in a new way, which is somewhat difficult to adapt to after spending many years doing things the other way--that is spitting out facts instead of arguing opinions with support of factual evidence. -Joe Walker, log

- "Counter arguments really thrill the professor!" -Larry Crane, log

- [preparing for in-class essay]: "I jotted down any ideas at all I had about the various aspects of the question, possible solutions, counterarguments, strategies, areas I need to investigate further, etc." -Larry Crane, log

- "I remember going in there thinking, O.K., this is just a basic history course, you know; it's not going to be a lot of work, you

know what I mean; it's just going to be basically all lecture and then I'm going to have to restate what he told me on an exam. But Dr. Breihan was saying, 'I'm not a history teacher; I'm a historian who teaches history.' And right there I knew the outlook that I had was WRONG! [As I looked through the course material] I remember thinking, this is going to be different than what I thought....It was THE hardest course I ever had....My writing improved SO much!" -Bonnie Kraft, interview, 3 years after the course

5. SAVING TIME IN GRADING/RESPONDING

1. Separate commenting from grading
2. Use only as many grading levels as you really need
3. Comment in different ways for different situations
4. Do not waste time on careless student work
5. Use what the student knows
6. Ask students to organize their work for your efficiency
7. Delegate the work
8. Use technology to save time and enhance results

Barbara E. Walvoord, Director, Kaneb Center for Teaching Excellence, University of Notre Dame, Notre Dame, IN 46556

6. How to Use the Grading Process for Departmental and Institutional Assessment

BASIC PHILOSOPHY

Assessment does not have to be something EXTRA for faculty, added on to what they are already doing. Many good teachers already assess student learning in their classrooms. They establish objectives, construct valid tests/assignments, evaluate student work against clear criteria, and feed back that information into student learning and into their own teaching.

The grading process yields much more than just the "grade" as an artifact. When done well, the grading process is a rich contribution to assessment and to learning.

Institutions can:

- Help faculty strengthen and improve the grading process
- Use the products that the grading process yields for institutional assessment

PRINCIPLES OF GOOD PRACTICE FOR ASSESSING STUDENT LEARNING*

1 The assessment of student learning begins with educational values.

Assessment is not an end in itself but a vehicle for educational improvement. Its effective practice, then, begins with and enacts a vision of the kinds of learning we most value for students and strive to help them achieve. Educational values should drive not only *what* we choose to assess but also *how* we do so. Where questions about educational mission and values are skipped over, assessment threatens to be an exercise in measuring what's easy, rather than a process of improving what we really care about.

2 Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time.

Learning is a complex process. It entails not only what students know but what they can do with what they know; it involves not only knowledge and abilities but values, attitudes, and habits of mind that affect both academic success and performance beyond the classroom. Assessment should reflect these understandings by employing a diverse array of methods, including those that call for actual performance, using them over time so as to reveal change, growth, and increasing degrees of integration. Such an approach aims for a more complete and accurate picture of learning, and therefore firmer bases for improving our students' educational experience.

3 Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes.

Assessment is a goal-oriented process. It entails comparing educational performance with educational purposes and expectations — these derived from the institution's mission, from faculty intentions in program and course design, and from knowledge of students' own goals. Where program purposes lack specificity or agreement, assessment as a process pushes a campus toward clarity about where to aim and what standards to apply; assessment also prompts attention to where and how program goals will be taught and learned. Clear, shared, implementable goals are the cornerstone for assessment that is focused and useful.

4 Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes.

Information about outcomes is of high importance; where students "end up" matters greatly. But to improve outcomes, we need to know about student experience along the way — about the curricula, teaching, and kind of student effort that lead to particular outcomes. Assessment can help us understand which students learn best under what conditions; with such knowledge comes the capacity to improve the whole of their learning.

5 Assessment works best when it is ongoing, not episodic.

Assessment is a process whose power is cumulative. Though isolated, "one-shot" assessment can be better than none, improvement is best fostered when assessment entails a linked series of activities undertaken over time. This may mean tracking the progress of individual students, or of cohorts of students; it may mean collecting the same examples of student performance or using the same instrument semester after semester. The point is to monitor progress toward intended goals in a spirit of continuous improvement. Along the way, the assessment process itself should be evaluated and refined in light of emerging insights.

6 Assessment fosters wider improvement when representatives from across the educational community are involved.

Student learning is a campus-wide responsibility, and assessment is a way of enacting that responsibility. Thus, while assessment efforts may start small, the aim over time is to involve people from across the educational community. Faculty play an especially important role, but assessment's questions can't be fully addressed without participation by student-affairs educators, librarians, administrators, and students. Assessment may also involve individuals from beyond the campus (alumni/ae, trustees, employers) whose experience can enrich the sense of appropriate aims and standards for learning. Thus understood, assessment is not a task for small groups of experts but a collaborative activity; its aim is wider, better-informed attention to student learning by all parties with a stake in its improvement.

7 Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about.

Assessment recognizes the value of information in the process of improvement. But to be useful, information must be connected to issues or questions that people really care about. This implies assessment approaches that produce evidence that relevant parties will find credible, suggestive, and applicable to decisions that need to be made. It means thinking in advance about how the information will be used, and by whom. The point of assessment is not to gather data and return "results"; it is a process that starts with the questions of decision-makers, that involves them in the gathering and interpreting of data, and that informs and helps guide continuous improvement.

8 Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change.

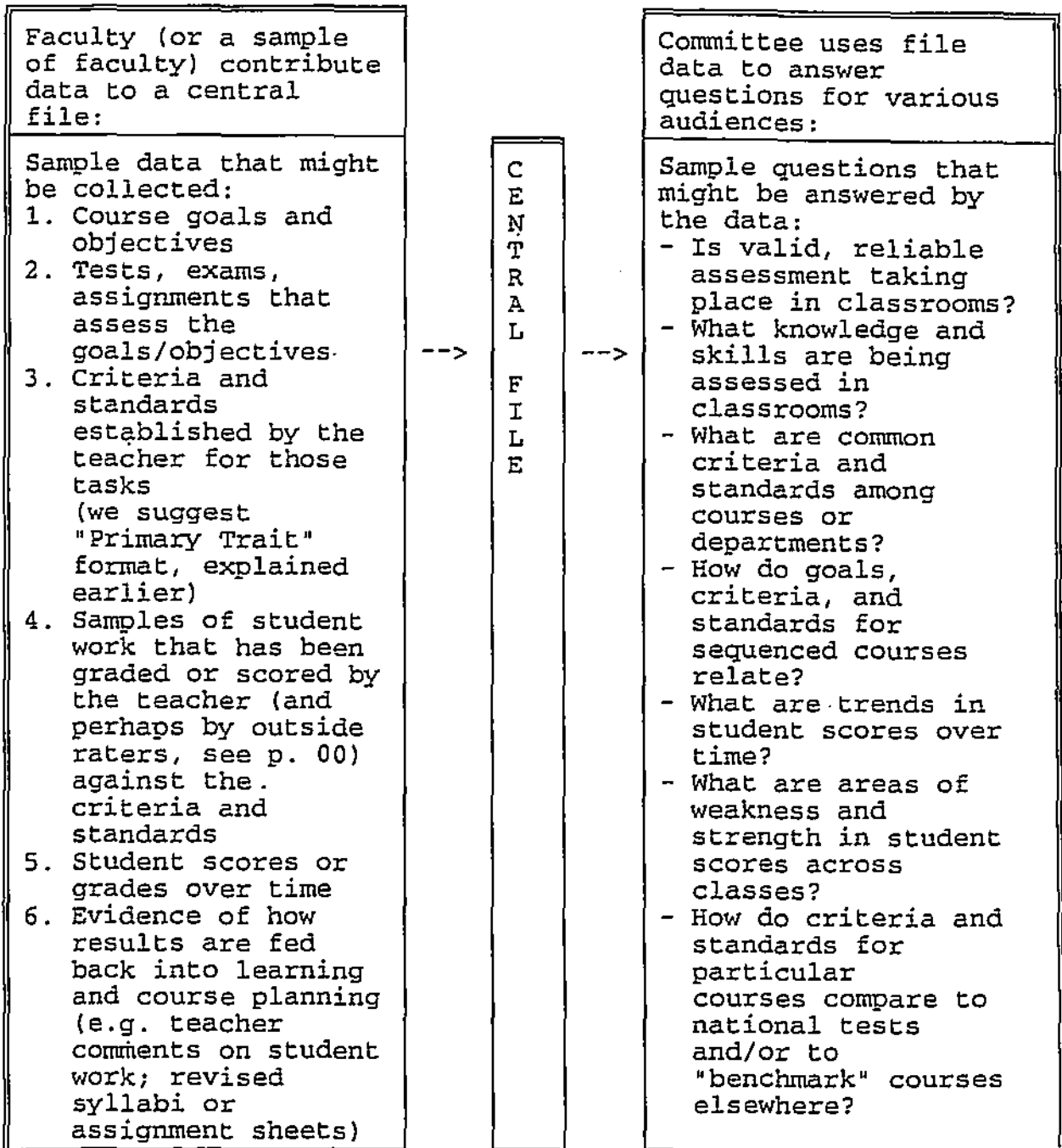
Assessment alone changes little. Its greatest contribution comes on campuses where the quality of teaching and learning is visibly valued and worked at. On such campuses, the push to improve educational performance is a visible and primary goal of leadership; improving the quality of undergraduate education is central to the institution's planning, budgeting, and personnel decisions. On such campuses, information about learning outcomes is seen as an integral part of decision making, and avidly sought.

9 Through assessment, educators meet responsibilities to students and to the public.

There is a compelling public stake in education. As educators, we have a responsibility to the publics that support or depend on us to provide information about the ways in which our students meet goals and expectations. But that responsibility goes beyond the reporting of such information; our deeper obligation — to ourselves, our students, and society — is to improve. Those to whom educators are accountable have a corresponding obligation to support such attempts at improvement.

* Development of this document was sponsored by the American Association for Higher Education (AAHE) and supported by the Fund for the Improvement of Postsecondary Education (FIPSE); publication and dissemination was supported by the Exxon Education Foundation. Copies may be made without restriction; packets of 25 are available free while supplies last from Assessment Principles of Good Practice, AAHE, One Dupont Circle, Suite 360, Washington, DC 20036-1110; ph. 202/293-6440, fax 202/293-0073.

HOW CLASSROOM ASSESSMENT MIGHT BE USED FOR DEPARTMENTAL/INSTITUTIONAL ASSESSMENT



ASSESSMENT QUESTIONS THE DATA MIGHT ANSWER

Excerpt from draft of a monograph, tentatively titled "Using Grading for Assessment" forthcoming from American Assn. for Higher Education, Washington, DC

Here are some suggestions about the kinds of questions that might be answered by a collection of assignments, primary trait scales, and student scores collected over time. In each case, the question is followed by one or more hypothetical statements that might answer those questions.

Example #1: Documenting Classroom Assessment

Who Needs to Know What, For What?

At this most elemental level, all you're trying to do with your collected material is to document for yourselves and for your accrediting agency that you have an assessment program in place and that the assessment program is meeting the following criteria:

Assessment is being conducted in classrooms

Assessment in classrooms is connected to learning goals

Assessment instruments (tests and assignments) are measuring
those learning goals

Criteria are being explicitly stated

Students work is being assessed against those criteria

The results of assessment are being fed back into student
learning and into teaching methods

Examination of Assignments and Primary Trait Scales Results in

This Finding:

We collected from a random sample of 20% of the courses in the department the following information:

Teacher's or TA's statement of learning goals for the course
Copies of what the teacher judged the most central tests and assignment that assessed student achievement of those goals

The primary trait scale or other statement of criteria that makes explicit what criteria are being used to assess students' performances on the tests/assignments

Samples of student work

Statement by the teacher, of how assessment results were being fed back into student learning and into the teacher's own practice. Available evidence to show the feedback process (student revisions, student evaluations, new syllabus, additional handouts, etc.)

Faculty teaching 87% of the sample courses submitted material that contained all of the items above, completed at a level the committee judged satisfactory to meet the criteria. The committee is discussing with the remaining 13% their assessment practices.

Example #2: Finding Common Expectations

Who Needs to Know What, for What?

The General Education Committee needs to know what is being taught and expected of students in Gen Ed courses. What are

common expectations? The committee would like to make recommendations to Gen Ed faculty and to the Faculty Senate about enhancing the cohesiveness of the general education experience for students. Further, the college would like to be able to describe more specifically for external audiences the skills it teaches in Gen Ed.

Examination of Assignments and Primary Trait Scales Results in This Finding:

The committee might state: Examination of a sample of assignments and primary trait scales from X courses reveals the following common expectations:

problem-solving: 46% of the assignments
 generalizing from data: 42% of the assignments
 questioning assumptions: 39% of the assignments
 analyzing a text: 79% of the assignments
 etc.

Comments:

The examiners will probably have to interpret some different language in the primary trait scales and assignments. For example, an assignment may call for analysis of text but not use that word. Divergences of language will be reduced if teachers develop their primary trait scales in a workshop or collaborative setting, and/or if they have common models or mission statements to work from.

Example #3: Overview of Where Various Skills Are Taught and Assessed

Who Needs to Know What, For What?

A department wants to assure that skills taught and assessed at lower levels build consistently toward skills required for upper-level work. Further, the department wants to describe to its prospective students and to those who employ its students, what skills the students have been taught.

Examination of Assignments and Primary Trait Scales Results in This Finding:

The committee might state: Examination of assignments and primary trait scales from the all the department's senior courses and from a selection of the department's lower-level courses indicates that the following skills are commonly required:

Upper level:

X

Y

Z

Lower level:

A

B

X

Comments

A finding such as this then leads to a discussion by the department about whether skills A and B are appropriate preparations for X, Y, and Z, whether X is being required at the same level of skill in both upper and lower level, etc.

Example #4: What Is Required of Graduates?

Who Needs to Know What, for What?

A department wants to know what is being required of its graduates, both for its own use and for employers and prospective students.

Examination of Assignments and Primary Trait Scales Results in This Finding:

An examination of assignments and primary trait scales in the three courses that, among them, enroll all senior students, indicates that all seniors, in these courses, are being required to demonstrate the following skills for an assignment grade of "C":

X

Y

Z

Comment: A finding such as this may encourage the department to teach more deliberately toward those skills in the lower levels. Or the department may now want to decide that all teachers in those 3 courses will, through some assignment or another, assess the three skills. Or they may want to make it a policy that a

student who does not perform at least at the "C" level on those three skills will not pass the course, etc.

With the next example, we move from cases that would require a committee only to examine the assignments and primary trait scales. to a case where the committee might also examine student scores collected over time. The teachers would have to keep these scores and submit them, in the aggregate, or with students' privacy protected, to the committee. Remember that the scores are not the same as the assignment grades. It is possible to score a piece of student writing only for the traits that the committee wants to look at.

Example #5: Strengths and Weaknesses in Student Performance

Who Needs to Know What, for What?

Let us suppose that the folks in Example #3, having identified the skills being assessed in their three senior courses, now decide they want to track, over time, how well their students do on these skills. They need not institute an external test for this, as long as the teachers of the three senior courses will submit student scores over time. Looking at these scores, the teachers and the committee together might try to figure out how to raise the scores, either by better preparation before students' senior year,

and/or by different teaching strategies in the senior courses.

Examination of Assignments and Primary Trait Scales Results in This Finding:

After examining the assignments, the primary trait scales, and student scores from the three senior courses over three years, the committee finds that:

- students consistently score lower on X than on Y and Z
- student scores on X and Y have remained fairly constant; student scores on Z have risen over the 3 years

(quantitative results and statistical computations might be given here).

Comments:

An examination like this might lead the department to ask why scores have risen on Z, or why students score lower on X than on the others. The department might move to help students more directly with X in the lower courses, or the teachers of the senior courses might agree to work harder or differently with X. Then, analysis of further scores over time could determine whether students were doing better.

Example #6: Comparing and Tracking Student Performance

Who Needs to Know What, for What?

The college has been working hard to improve instruction in critical thinking in General Education courses. They want to know whether their efforts have produced any changes in student's performance on assignment that assess critical thinking.

Examination of Assignments and Primary Trait Scales Results in This Finding:

In a random sample of General Education course assignments, primary trait scales, and student scores in 1994 and in 1996, the committee finds that students' scores in critical thinking, as defined in each discipline through the primary trait scale, have risen significantly in 48% of the courses, remained the same in 27% and fallen in 25%.

Comment:

This kind of comparison is possible because critical thinking, though defined differently in each course, is labelled as such by the teachers. That is, the chemistry teacher is scoring students on one or more 5-point scales for critical thinking as she defines it; the history teacher is scoring students on one or more 5-point scales for critical thinking as he defines it. So what you're comparing here is students' standing on those five-point scales. For example, let's say the chemistry teacher is asking students for research proposals that require the traits of hypothesization and experimental design. The chemistry teacher defines those as "critical thinking." She constructs a 5-point scale for each trait. She (and outside

raters if needed) score student work on those 5-point scales, and the chemistry teacher turns in those aggregated scores to the committee along with the assignment and the primary trait scale. The history teacher is asking students for essays that require the traits of evidence and counter-argument. He defines those as "critical thinking." He constructs a five-point scale for each trait. He (and outside raters if needed) score student work on those 5-point scales, and he turns in that material just like the chemistry teacher did. Now the committee sees a configuration something like this:

Fig. 1: Mean primary trait score for all students who took the exam, on teacher-defined critical thinking traits (5 high; 1 low)

	1994	1996
Chemistry	3.2	3.7
History	2.8	4.1

n= chemistry: 208 in 1994; 235 in 1996

history: 42 in 1994; 38 in 1996

These are some examples of questions that might be answered by having a committee examine a collection of materials about the grading process. But the examination of this collected data assumes a long prior process of deciding that this is the best mode, helping faculty develop these materials, and collecting them in useful formats.

60

**BRIEF HISTORY OF GENERAL EDUCATION ASSESSMENT
RAYMOND WALTERS COLLEGE, UNIVERSITY OF
CINCINNATI**

**** 1967** RWC OPENED AS A STATE SUPPORTED TWO-YEAR COLLEGE
OF A MUNICIPALLY OWNED UNIVERSITY

**** 1992** STATE AND NCA (NORTH CENTRAL ASSOCIATION) MANDATES
TURNED RWC'S ATTENTION TO FUNCTIONAL MISSION STATEMENT AND
ASSESSMENT PLANNING

**** 1992** COLLEGE FORMED ACADEMIC ASSESSMENT COMMITTEE
WHICH, IN TURN, FORMED SEVERAL SUBCOMMITTEES INCLUDING ONE ON
GENERAL EDUCATION

**** 1993-4** PILOT STUDY (ETS TEST - GENERAL EDUCATION) MET WITH
CONCERN BY RWC FACULTY

**** 1995** DR. WALDOORD MET WITH THE GENERAL EDUCATION
SUBCOMMITTEE TO DISCUSS THE POSSIBLE USE OF PRIMARY TRAIT SCORING
AS A MEANS OF ASSESSING CRITICAL THINKING AND QUANTITATIVE
REASONING SKILLS (PART OF THE OVERALL GENERAL EDUCATION ASSESSMENT
PLAN)

**** 1995** GROUP OF FACULTY MEMBERS CHOSE TO TAKE PART IN A
PILOT STUDY OF PRIMARY TRAIT SCORING FOR USE IN THE CLASSROOM AND
AS A GENERAL EDUCATION ASSESSMENT TOOL FOR THE COLLEGE

**** 1995** RWC FALL CONVOCATION WAS ON PRIMARY TRAIT SCORING

**** 1995** AT A COLLEGE FACULTY MEETING , THE COLLEGE FACULTY
PASSED A MOTION THAT COURSE EMBEDDED CLASSROOM ASSESSMENT WOULD
BE USED TO ASSESS OUR STUDENTS' CRITICAL THINKING AND QUANTITATIVE
REASONING SKILLS.

**** CURRENT** FOLLOW-UP SESSION NOV. 14
"POSTER SESSION" IN EARLY SPRING.
FACULTY ATTEND FEB WORKSHOP

BIBLIOGRAPHY

3/7/96

Barbara E. Walvoord,

Angelo, Thomas A. and K. Patricia Cross. Classroom Assessment Techniques: A Handbook for College Teachers. 2nd ed. San Francisco: Jossey-Bass, 1993

Banta, Trudy W., Jon P. Lund, Karen E. Black, and Frances W. Oblander. Assessment in Practice: Putting Principles to Work on College Campuses. San Francisco: Jossey-Bass, 1996. See Walvoord et al contribution, pp. 278-280.

Walvoord, Barbara, and Virginia Johnson Anderson. Using the Grading Process for Assessment. Forthcoming monograph

Walvoord, Barbara, Virginia Johnson Anderson, John R. Breihan, Lucille Parkinson McCarthy, Susan Miller Robison, and A. Kimbrough Sherman. "Making Traditional Graded Tests and Assignments Serve Contemporary Needs for Assessment." In Trudy Banta, ed., Assessment in Practice: Putting Principles to Work on College Campuses. San Francisco: Jossey-Bass, 1996. Pp. 278-280.

Walvoord, Barbara, and Virginia Johnson Anderson. "An Assessment Riddle." Assessment Update 7.6 (Nov./Dec. 1995): 8-11.

Walvoord, Barbara, and Lucille Parkinson McCarthy, with contributions by Virginia Johnson Anderson, John R. Breihan, Susan Miller Robison, and A. Kimbrough Sherman. Thinking and Writing in College: A Naturalistic Study of Students in Four Disciplines. Urbana, IL: National Council of Teachers of English, 1991.