



Effective Teaching and Its Evaluation

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Objectives

- Introduce the course syllabus
- List the eight factors of effective teaching
- Brief discussion of assessment of learning
- “Demonstrate” the validity of student evaluations of teaching



Before the Course Begins

- What should my students be able to do intellectually as a result of this course?
- How can I help them to develop the necessary intellectual understanding and capacity?
- How can I and the students assess their intellectual progress?
- How do I evaluate my own efforts to foster learning as the course progresses?



The Course Syllabus

- It is a valuable guide for you and your students.
- It begins with a statement that places the course within the intellectual area of the field.
- It provides overall objectives for the course that should be fairly specific.
- Includes appropriate references, including primary literature.



The Course Syllabus (continued)

- Introduce yourself, perhaps offering a few personal facts; office hours, contact information.
- Your approach to teaching.
- A student contract for attendance and performance is often a good idea.
- Course prerequisites.
- Course assignments and due dates.



The Course Syllabus (continued)

- How performance will be evaluated, e.g., essay exams, multiple choice, term papers.
- Grading policy in considerable detail to avoid misunderstandings in the future.
- Policy on attendance/make-up exams/late papers/other related items..
- Other administrative matters.



The Course Syllabus (continued)

- Support services, e.g., math help labs or writing labs, library services.
- Academic integrity and plagiarism.
- Strategies for Success in the course.
- Course Calendar: My personal preference is to separate the Course Calendar from the Syllabus and treat the Calendar as a course outline **with at least three specific objectives for each class period.**



8 Factors Most Important to Students



Subject Matter

- Demonstrates detailed knowledge of the subject matter.
- Shows enthusiasm for the subject.

8 Factors Most Important to Students



Presentation/Facilitation

- Is well prepared for class (clear syllabus and schedule, organized in class).
- Stimulates interest in the subject.
- Encourages discussion/class interaction.
- Explains information clearly.



8 Factors Most Important to Students



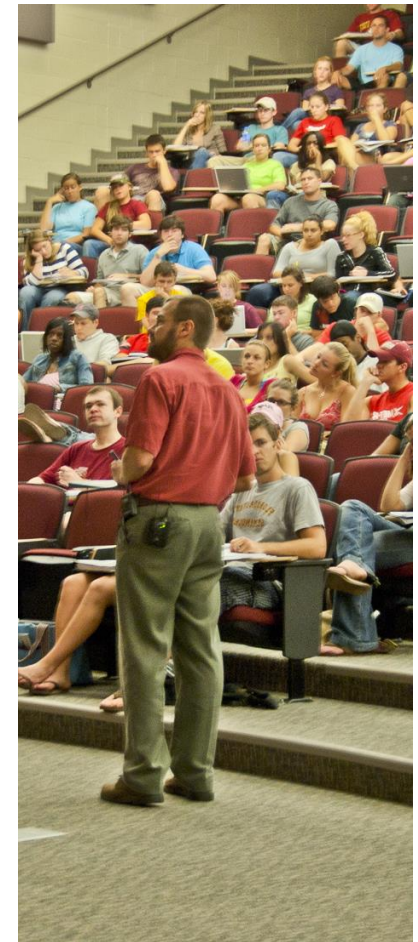
Approach to Students

- Shows concern for students.
- Is readily available to students.



The Classroom Environment

- Start with an intriguing question.
- Guide the students to the importance of the question.
- Engage in discussions that illuminate the question.
- End the class with a question for the students to consider for the next class.



EDUCATIONAL PRACTICES THAT FACILITATE LEARNING

- First-Year Seminar
- Learning Communities
- Undergraduate Research
- Internships in the Discipline
- Freshmen Interest Groups
 - Service Learning



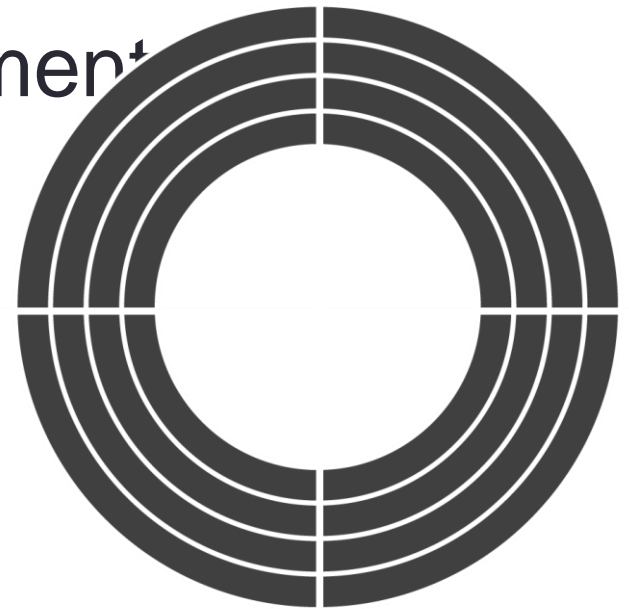
Assessment of Learning

- This is much more difficult than it would seem because of the nature and variety of student learners.
- How do we distinguish among students who are “procedural=(gamers)” and those who have “deep understanding?”
- There are few, in any, instruments available and real assessment requires prolonged oral interactions.
- There are many published examples of students who received an “A” in a course but who did not have deep understanding of the material.



Assessment Instruments

- National Survey of Student Engagement
- Collegiate Learning Assessment
- ETS Proficiency Profile
- Collegiate Assessment of Academic Proficiency
- ETS Major Fields
- College Senior Survey

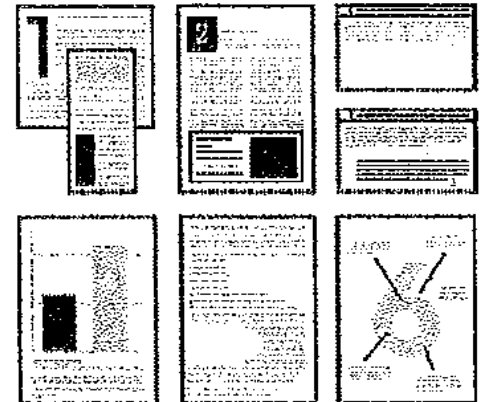


Higher Level Skills

Example: Performance Task

You are the assistant to Pat Williams, the president of DynaTech, a company that makes precision electronic instruments and navigational equipment. Sally Evans, a member of DynaTech's sales force, recommended that DynaTech buy a small private plane (a SwiftAir 235) that she and other members of the sales force could use to visit customers. Pat was about to approve the purchase when there was an accident involving a SwiftAir 235. You are provided with the following documentation:

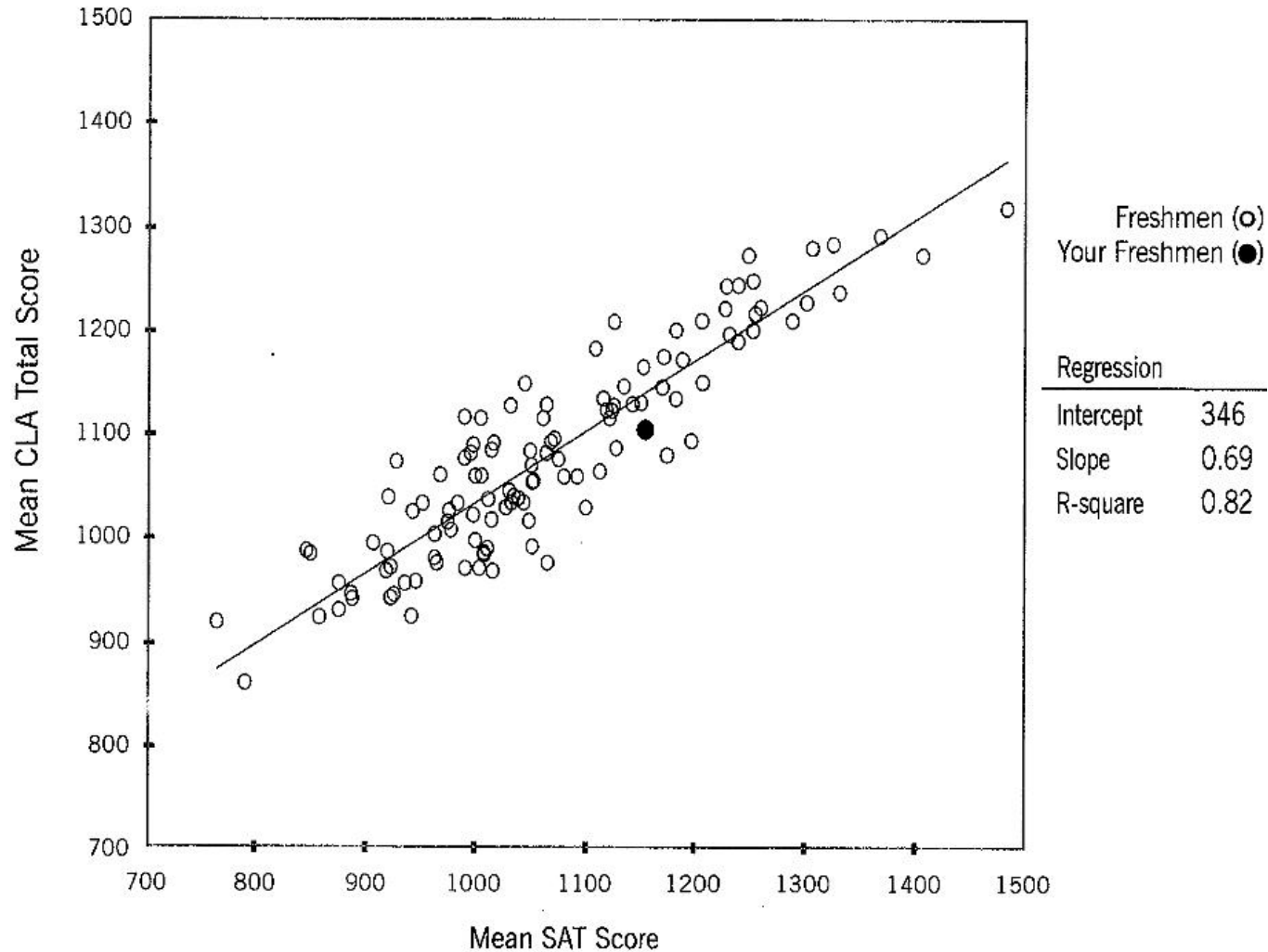
- 1: Newspaper articles about the accident
- 2: Federal Accident Report on in-flight breakups in single engine planes
- 3: Pat's e-mail to you & Sally's e-mail to Pat
- 4: Charts on SwiftAir's performance characteristics
- 5: Amateur Pilot article comparing SwiftAir 235 to similar planes
- 6: Pictures and description of SwiftAir Models 180 and 235



Please prepare a memo that addresses several questions, including what data support or refute the claim that the type of wing on the SwiftAir 235 leads to more in-flight breakups, what other factors might have contributed to the accident and should be taken into account, and your overall recommendation about whether or not DynaTech should purchase the plane.

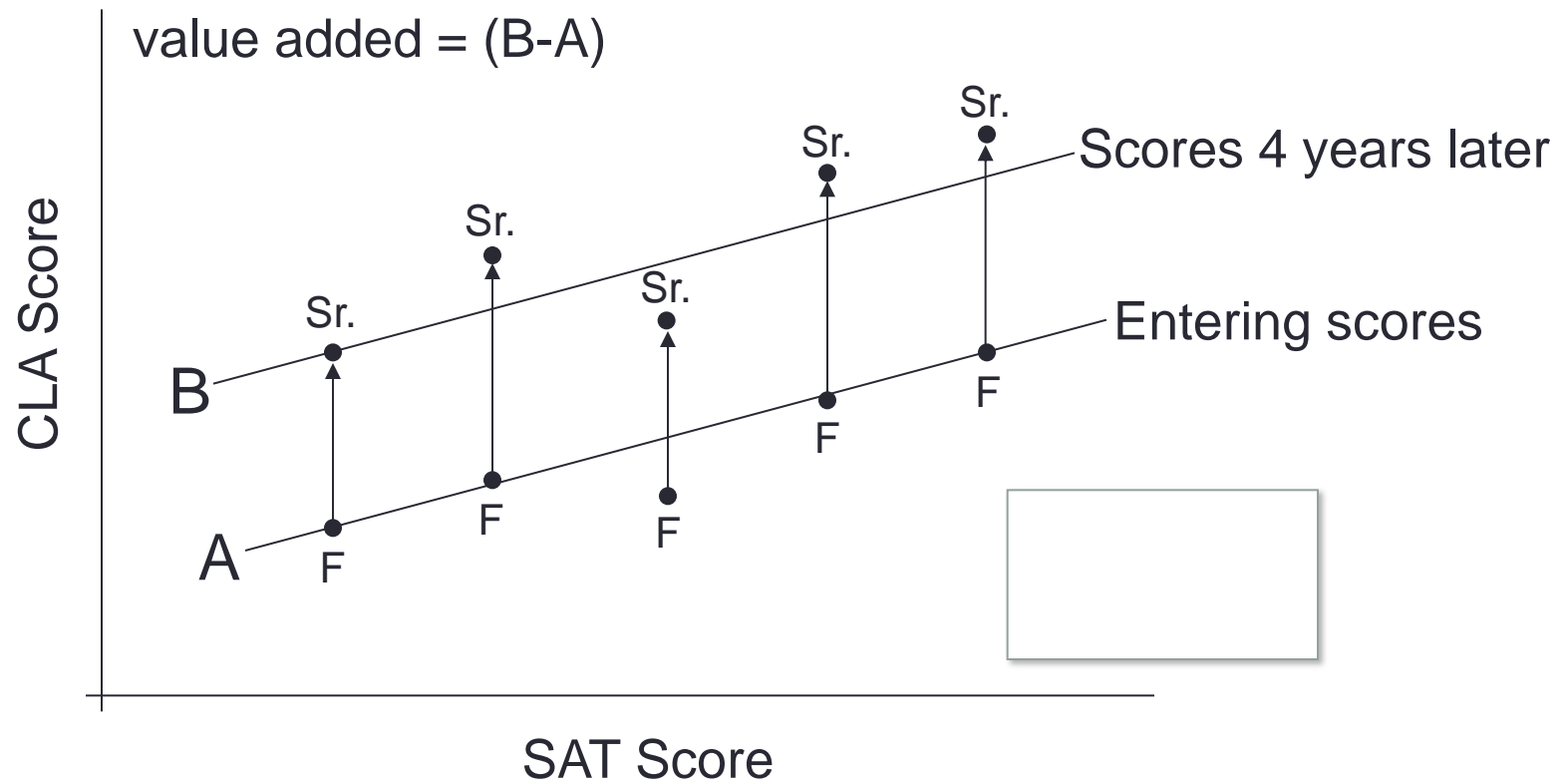
A sample of >200 universities

Relationship Between CLA Performance and Incoming Academic Ability



The Collegiate Learning Assessment Allows Longitudinal Measurement of the Individual Student

Individual Level
(Cross-sectional and Longitudinal)



How Do We Measure Effective Teaching?



Student achievement: Performance in

- Current course
- Subsequent courses
- Program of study
- Professional work
- The next level of the student's education, e.g., graduate or professional school



How Do We Measure Effective Teaching?

Ratings of teaching based on

- Peer observations
- Expert observations
- Student perceptions
- Self and peer evaluation
- “video of you teaching”



Holistic Observational Instruments

- Reformed Teaching Observation Protocol (RTOP)
- UTeach Observation Protocol (UTOP)
- Teaching Behaviors Inventory (TBI)
- Teaching Dimensions Observation Protocol (TDOP)
- And several others



A Typical Observation Scoring Sheet with Codes

Date: Nov 13 Class: 326 Instructor: STUART SUTHERLAND No. students 100/54 Arranged how? LECTURE 10/2
 1. L-Listening; Ind-individual thinking; CG-Clicker Q discussion; WG-Worksheet group work; OG-Other group work; AnQ-Answer Q; SQ-Student Q; WC-Whole class discuss;
 Prd-Predicting; SP-Student present; TQ-Test/quiz; W-Waiting; O-Other

2. Lec-Lecturing; RtW-Writing; FUp-Follow-up; PQ-Pose Q; CQ-Clicker Q; AnQ-Answer Q; MG-Moving/Guiding; 1o1-One-on-one; D/V-Demo+; Adm-Admin; W-Waiting; O-Other
 For each 2 minute interval, check columns to show what's happening in each category (or draw vertical line to indicate continuation of activity). OK to check multiple columns.

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| 1. Students doing | | | | | | | | | | | | | | 2. Instructor doing | | | | | | | | | | | 3. Engagement | | | Comments: EG: explain difficult coding choices, flag key points for feedback for the instructor, identify good analogies, etc. | | | | |
|-------------------|---|-----|----|----|----|-----|----|----|-----|----|----|---|---|---------------------|-----|-----|----|----|-----|----|-----|-----|-----|---|---------------|---|---|--|---|--|--|--|
| min | L | Ind | CG | WG | OG | AnQ | SQ | WC | Prd | SP | TQ | W | O | Lec | RtW | FUp | PQ | CQ | AnQ | MG | 1o1 | D/V | Adm | W | O | L | M | | H | | | |
| 0-2 | ✓ | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | START EARLY START STRIC WORKING. | |
| 2 | ✓ | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | 1 CLICKER NOT WORKING | |
| 4 | ✓ | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | - STILL HAVE ANSWERS TO CLICKERS ON SLIDES. RECALL | |
| 6 | ✓ | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | - SOME TALKING AT BACK. - NICE TALKING CLEAN SHOT. | |
| 8-10 | ✓ | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | ONE STOPPING - ONE PLAYING. WALK TO BACK. | |
| 10-12 | ✓ | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | SOME WANDERING | |
| 12 | ✓ | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | | |
| 14 | ✓ | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | | |
| 16 | ✓ | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | | |
| 18-20 | ✓ | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | | SOME TALKING AT BACK LOOPER |
| 20-22 | ✓ | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | | |
| 22 | ✓ | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | | - COULD HAVE FROM DEMONSTRATION WHAT CAUSED EXTINCTION |
| 24 | ✓ | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | | - LET'S KILL A BROTHER. CHOOSE AN PREDICT... |
| 26 | ✓ | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | | |
| 28-30 | ✓ | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | | PLEASE STOP OF BATH. IF YOU ARE AS COOL AS |



Another Approach from today's Chronicle

TABLE 1. TEACHING PRACTICES INVENTORY CATEGORIES

| | |
|--|--|
| I. <i>Information about the course, such as a list of the topics and organization of the course and learning goals/objectives</i> | Course information provided |
| II. <i>Materials that support learning of the course content, such as notes, videos, and targeted references or readings</i> | Supporting materials provided |
| III. <i>What is done in the classroom, including different types of activities that the instructor might do or have the students do</i> | In-class features and activities |
| IV. <i>The nature and frequency of homework assignments in the course</i> | Assignments |
| V. <i>Testing and grading in the course, as well as the feedback from instructor to students and from students to instructor</i> | Feedback and testing |
| VI. <i>Assorted items covering diagnostics, assessment, new methods, and student choice and reflection</i> | Other |
| VII. <i>The selection criteria and training used for course teaching assistants and how their efforts are coordinated with other aspects of the course</i> | The training and guidance of teaching assistants |
| VIII. <i>Collaboration with other faculty, use of relevant education research literature, and use of educational materials from other sources</i> | Collaboration |



Pay Attention to Student Perceptions of Teaching

- Read the student evaluations very carefully as research indicates that they are valid and highly correlated with peer assessment and other objective measures.
- See: Kulik, J. 2001. Student Ratings: Validity, Utility and Controversy. P.9-25 In: Theall, M., Abrami, P.C., and Mets, L.A. (eds.).
The Student Ratings Debate: Are they valid? How can we best use them? Jossey-Bass, San Francisco.
- Aleamoni, L. M. 1999. Student rating myths versus research facts from 1924-1998. J. Personnel Evaluation in Education 13:2 153-166



Responses from All Courses

| Section D SUSSAI | E | VG | G | F | P | (N) |
|--|-------|------|------|------|------|-------|
| 1. Description of course objectives and assignments | 43.8% | 31.4 | 18.9 | 4.6% | 1.2% | 98066 |
| 2. Communication of ideas and information | 45.4% | 29.8 | 17.3 | 5.6% | 2.0% | 97958 |
| 3. Expression of expectations for performance in class | 46.9% | 29.4 | 17.6 | 4.8% | 1.3% | 97692 |
| 4. Availability to assist students in or out of class | 49.3% | 27.3 | 17.7 | 4.4% | 1.2% | 97372 |
| 5. Respect and concern for students | 56.7% | 25.5 | 13.5 | 3.2% | 1.1% | 97450 |
| 6. Stimulation of interest in the course | 48.9% | 26.9 | 16.1 | 5.7% | 2.4% | 97287 |
| 7. Facilitation of learning | 47.4% | 28.7 | 17.1 | 5.0% | 1.8% | 97204 |
| 8. Overall assessment of instructor | 53.6% | 25.3 | 14.1 | 5.1% | 1.8% | 97237 |



Responses for a Course of Concern

| Section D SUSSAI | E | VG | G | F | P | (N) |
|--|----|-----|-----|-----|-----|-----|
| 1. Description of course objectives and assignments | 3% | 3% | 38% | 29% | 18% | 43 |
| 2. Communication of ideas and information | 3% | 0 | 35% | 41% | 21% | 43 |
| 3. Expression of expectations for performance in class | 3% | 0 | 24% | 32% | 32% | 43 |
| 4. Availability to assist students in or out of class | 0% | 9% | 38% | 32% | 26% | 43 |
| 5. Respect and concern for students | 3% | 3% | 24% | 26% | 41% | 43 |
| 6. Stimulation of interest in the course | 6% | 24% | 24% | 44% | 21% | 43 |
| 7. Facilitation of learning | 3% | 6% | 38% | 26% | 24% | 43 |
| 8. Overall assessment of instructor | 3% | 3% | 18% | 35% | 41% | 43 |



Correlations

- Student ratings and how much they feel they have learned AND the effectiveness of the of the instructor and course elements
 - Positive correlation (.48-.64)
- Overall teacher effectiveness rating AND the grade expected in the course
 - Low correlation (.24) and less than the correlation between teaching effectiveness and time of day (.27)
- Moderate but significant correlations between student ratings AND outside observers
 - Moderate correlation (.5)



- Send a “Thank you and congratulations” or a complimentary note to anyone who receives 90% or better in Excellent for “overall assessment.”
- Look into anyone who receives 30% or more “Fair+Poor” to the same question.
- Improvement plans are almost always successful.



Concerns about Faculty Teaching

- ◆ The first poor evaluation should result in a meeting with the department chair to discuss the issues. Anyone can have one poor evaluation for a variety of reasons.
- ◆ The second poor evaluation should result in a written teaching improvement plan.
- ◆ If there is a third poor evaluation, the faculty member should only be permitted to teach under supervision.
- ◆ Failure to improve should result in removal from the program.
- ◆ **Faculty are almost always successful when given some guidance.**



Written Teaching Improvement Plan

- The plan is prepared with the guidance of a senior colleague or learning specialist and approved by the chair.
- It should begin with a detailed list of concerns identified through student perception surveys, peer evaluation and videos of the individual teaching.
- The concerns should be listed and a specific, measurable objective listed for each area of concern.
- A colleague or learning specialist should be sitting in every class with an instrument that permits assessment of the improvement objectives.
- Student surveys should be conducted at least every four weeks during the course.





Questions & Discussion