

Authentic Assessment

Breakout 1:30pm-2:30pm



Authentic Assessment (breakout 1:30pm-2:30pm)

Authentic Assessment- provide DIRECT evidence of whether or not a student has command of a-

- (a) specific subject or content area, or
- (b) can perform a certain task, or
- (c) exhibits a particular skill, or
- (d) demonstrates certain quality in his/her work (ex. creativity)
- (e) holds a particular value (ex. empathy towards homeless)

Hernon, P., & Dugan, R. E. (eds). (2004). Outcomes Assessment in Higher Education: Views & Perspectives. Westport, CT: Libraries Unlimited.

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Levels of Evaluation (training)-

- 1.) **Evaluative Reaction:** Did students *Like* it?
(ex. student satisfaction, perceptions of preparedness)
- 2.)* **Evaluative Learning:** Did students *Learn*?
(ex. final exam, rubrics, performance checklists, observations)
- 3.)* **Evaluative Behavior:** Did students *Use* it?
(ex. internship evaluations, employer surveys)
- 4.) **Evaluative Results:** Did students have impact?
ROI: Did students have impact on \$\$\$

* Focus of authentic assessment

Kirpatrick, D. (1998). Evaluating Training Programs: The Four Levels. (2nd ed.) San Francisco, CA: Berrett-Hoehler Publishers, Inc.

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Subject Matter Tests-

HOW to develop a Subject Matter Test:

1. Define the content
2. Select panel of Subject Matter Experts (SME) domain/construct
3. Generate items
4. Match items to domain/construct
(ex. Expert ratings, correlations)
5. Aggregate results from #3.
6. Pilot items, solicit feedback on items from Pilot participants

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Subject Matter Tests- ex. APSYC Senior Subject Matter Test

Applied Psychology Subject Exam

Please complete the following by darkening the most appropriate circle.

1. Morphology refers to the
 - A relationship between sounds and their meanings.
 - B origins of the words.
 - C relationship between different languages.
 - D study of infant babbling.
 - E non-verbal forms of communication.
2. In contrast to the cones,
 - A rods function mainly in night vision.
 - B rods are concentrated in the fovea.
 - C rods produce color images, as well as black and white images.
 - D rods are connected to bipolar cells in one-to-one ratio.
 - E rods are unimportant to night vision.
3. Alfred Binet is famous for developing the first
 - A item analysis.
 - B adult intelligence test.
 - C projective test.
 - D fixed alternative test.
 - E child intelligence test.
4. Sandra Bem devised a scale to measure feminine and masculine characteristics. Her research shows that people who score high on androgyny scale tend to have
 - A low self-esteem.
 - B confusions concerning sexuality.
 - C high self-esteem.
 - D high anxiety.
 - E maladaptive problems.

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Rubrics -

- 1.) Identify the criteria (scoring guide)
 - What are the expectations from the students?
 - What are the skills that should be demonstrated?
 - Criteria can have more than one element (ex. non verbal behavior?)
- 2.) Develop the rating scale
 - Usually three or four levels
 - Frequency, satisfaction, level of performance
- 3.) Articulate description of criteria at each rating
 - Start with the highest level
 - Next fill in the lowest level
 - Distinguish between highest and lowest levels;
 - Fill in the middle levels

Variations: Student involved in the **rubric design**
Staged Rubrics (criteria “rolled-out” at different times)

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Rubrics- ex. INDIVIDUAL Assessment for Project 1 Presentation

| | Criteria | | | | Score (15 Total) |
|--------------------------------|--|---|--|---|---------------------|
| | 0.0% | 33.3% | 66.6% | 100% | |
| 1. Organization | Audience cannot understand presentation because there is no sequence of information. | Audience has difficulty following presentation because student jumps around. | Student presents information in logical sequence which audience can follow. | Student presents information in logical, interesting sequence which audience can follow. | ___ (3 points) |
| 2. Length | Less than 5 Minutes | 5-7 Minutes | 7-9 Minutes | 10 Minutes | ___ (2 points) |
| 3. Power Point/ Visuals | Student used no visuals. | Student occasional used visuals that rarely support text and presentation. | Visuals related to text and presentation. | Student used visuals to reinforce screen text and presentation. | ___ (2 points) |
| 4. Delivery | Student mumbles, incorrectly pronounces terms, and speaks too quietly for students in the back of class to hear. | Student incorrectly pronounces terms. Audience members have difficulty hearing presentation. | Student's voice is clear. Student pronounces most words correctly. | Student used a clear voice and correct, precise pronunciation of terms. | ___ (3 points) |
| 5. Eye Contact | No eye contact/ reads report | Infrequent eye contact/ reads report | Some eye contact but mostly reads report | Frequent eye contact/ Does not read report | ___ (2 points) |
| 6. Non-Verbal Behavior | No intonation, Gestures inappropriate for presentation, Body language reserved and inappropriate | Some intonation but does not engage audience; Very few gestures; Body language does not engage audience | Intonation indicates some enthusiasm; Some gestures but not placed appropriate to presentation; Body language indicates connection to audience | Intonation indicates enthusiasm; Gestures appropriate to presentation; body language indicates connection to audience | ___ (1 points) |
| 7. Handles Questions | Does not answer questions, information is inaccurate | Answers few questions, Information is mostly inaccurate | Answer most questions, information is mostly accurate | Answer questions, information is Accurate and complete | ___ (2 points) |
| TOTAL | | | | | ___ (15 points) |

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Checklists-Rubrics without the rating scales

Required Elements for Project 2 GROUP Presentation/ Report

| | Score (15TOTAL) |
|---|--------------------|
| 1. Overview of construct /content including its theoretical back ground. Why it's being measured (ex. what are some of the current applications?)..... | (2) |
| 2. How did you design your instrument including sources, content validity, reliability information & other "test worthiness" considerations.)..... | (2) |
| 3. Present your item level statistics (screen prints from SPSS output on a PPT work great but be able to explain) | (3) |
| 4. Present some statistics about the WHOLE instrument (coefficient alpha, item correlations, t-test/ANOVA, factor analysis, again screen prints from SPSS output works here) | (3) |
| 5. What are the limitations of your instrument? a.) Are your t-tests/ANOVAs significant- would different populations fare differently or would there be the possibility of discrimination b.) Did your instrument have adequate coverage of the construct/content c.) What other statistics should you have done?..... | (2) |
| 6. Conclusions about your instrument & administration of your instrument)..... | (2) |
| 7. Summary | (1) |
| TOTAL | (15 Points) |

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Observations- Test is being taken but investigator may be recording responses

- **Critical incident-** occurs or does not
- **Sequencing-** when it occurs or does not
- **Frequency-** identify behavior & count how many times it occurs
- **Severity-** extent behavior is exhibited

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Employer Surveys –

HOW to develop a Employer Survey...same as Subject Matter Test:

1. Define the content
2. Select panel of Subject Matter Experts (SME) domain/construct
(Employers of graduates, faculty, internship supervisors, Advisory Council)
3. Generate items
4. Match items to domain/construct
(ex. Expert ratings, correlations)
5. Aggregate results from #3.
6. Pilot items, solicit feedback on items from Pilot participants

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Employer Surveys –

**Penn State Information Sciences & Technology Internship Program
FINAL EVALUATION – Employer’s Evaluation of Student/Penn State Preparation for the Internship**

Please submit this completed form: Dr. M. Susanne Samson; Penn State Berks; Tulpehocken Rd.; P.O. Box 7009; Reading, PA 19610.

Student Name: _____ Option: _____ Student ID Number: _____

Circle one: IST 295B IST 495 Other _____ Circle one: Fall Spring Summer Year: _____

Employer Name: _____ Employer Location: _____

- Instructions:**
Only the IST internship faculty supervisor will review these ratings. Feel free to elaborate on any items in the text boxes provided below.
- 1) *The immediate supervisor should evaluate the student objectively. Please compare the student’s performance to that of other students of comparable academic levels and experience.*
 - 2) *The student and his/her supervisor should review this form together and sign it below.*
 - 3) *The student must return the original to the IST internship faculty supervisor by the due date.*
 - 4) *Please keep a photocopy for your own records.*

How many hours did the student work? _____

Rate the student’s performance in the following skills using the numerical scale explained below:

5 – Superior; 4 – Very Good; 3 – Good; 2 – Fair; 1 – Poor; NA – Not Applicable

| | 5 | 4 | 3 | 2 | 1 | NA |
|--|---|---|---|---|---|----|
| Understands and utilizes written communication effectively | | | | | | |
| Understands and utilizes oral communication effectively | | | | | | |
| Demonstrates ability to handle multiple priorities efficiently and effectively | | | | | | |
| Maintains a sense of responsibility for a task or project until completion | | | | | | |
| Analyzes appropriate information. Uses good judgment when developing and evaluating alternatives | | | | | | |
| Employs technical ability effectively | | | | | | |
| Demonstrates ability to initiate and convey ideas and gain support from others | | | | | | |
| Works independently without constant supervision | | | | | | |
| Adapts to change | | | | | | |
| Maintains commitment to expected productivity levels | | | | | | |
| Exhibits leadership | | | | | | |
| Overall performance | | | | | | |

What are the student’s strongest assets?

What qualities and characteristics should the student strive to improve?

Authentic Assessment (breakout 1:30pm-2:30pm)

Employer Surveys —

instruction in that area.

| | Ability | | | | Satisfaction | | | |
|--|-----------------------|-------------------------|---------------------|-----------------|---------------|------------------------|--------------------|----------------|
| | Not Proficient at All | Somewhat Not Proficient | Somewhat Proficient | Very Proficient | Not Satisfied | Somewhat Not Satisfied | Somewhat Satisfied | Very Satisfied |
| <u>Applied Psychology Concepts</u> | | | | | | | | |
| a. Explain the history and fields of psychology | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| b. Explain different theories in mental health and adjustment | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| c. Explain different theories in social psychology | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| d. Explain different theories in industrial/organizational/group psychology | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| e. Explain different theories in learning/cognitive psychology | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| f. Concern for ethics & professionalism | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| g. Explain cross-cultural issues in psychology | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| <u>Research Methodology</u> | | | | | | | | |
| h. Different methods of data collection | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| i. Application of appropriate experimental design | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| j. Understanding data analysis and presentations | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| k. Understanding of psychometric theory | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| l. Ability to use various methods of information retrieval | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| m. Ability to critically evaluate published research | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| n. Ability to apply internship experience to career planning | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| o. Ability to use APA style in a research paper | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| p. Ability to use statistical software to produce descriptive statistics | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| q. Ability to use statistical software to perform inferential analyses | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |

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Internship Evaluations—

HOW to develop a Internship Evaluation...same as Subject Matter Test:

1. Define the content
2. Select panel of Subject Matter Experts (SME) domain/construct
(Employers of graduates, faculty, internship supervisors, Advisory Council)
3. Generate items
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Internship Evaluations—

**PENN STATE BERKS
ELEMENTARY EDUCATION PROGRAM
Mentor Teacher Questionnaire**

The purpose of the survey is to assess and improve the Elementary Education program at Penn State Berks. Please rate the following based on your experience in the Elementary Education Program.

1. I am a mentor teacher at: 10th & Green Elementary 13th & Green Elementary

SECTION 1: IMPACT ON MY CLASSROOM

Blacken the circle corresponding to the appropriate rating.

- | | | | | |
|--|-----------------------|----------------------------------|-----------------------|-----------------------|
| 2. My classroom children benefited from having an intern in the classroom..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. I believe instruction was enhanced by having an intern in the classroom..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. My classroom children received more individual attention as a result of having an intern in the classroom..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5. My classroom children received more attention during small group instruction time as a result of having an intern in the classroom..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. I had more time to get to know my classroom children as a result of having an intern in the classroom..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. I tried things in my classroom that I would not have tried alone..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. I grew professionally as a result of having an intern in my classroom..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |

SECTION 2: IMPACT ON MY TEACHING PRACTICE

Blacken the circle corresponding to the appropriate rating.

As a result of having an intern, I have changed:

- | | | | | |
|--|-----------------------|----------------------------------|-----------------------|-----------------------|
| 9. the way I teach math..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 10. the way I teach science..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 11. the way I teach language arts..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 12. how I structure my classroom learning environment..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 13. my conception of teaching interns..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 14. the way I interact and work with students..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |

SECTION 3: CREATING A UNIVERSITY-SCHOOL PARTNERSHIP

Blacken the circle corresponding to the appropriate rating.

- | | | | | |
|--|-----------------------|----------------------------------|-----------------------|-----------------------|
| 15. In my school, intern experiences are more powerful and useful than the traditional student teaching experiences..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 16. In my school, interns receive sufficient support in learning how to teach..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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Portfolios-

Portfolios (formative or summative)

- Records of achievement
- Selective and structured collections of information
- Gathered for specific purposes
- Provides evidence of accomplishments and/or growth
- Provides opportunity for students to reflect on own learning
- “e” – digitalized via web, CD-Rom

Includes

Assignments

Best examples of work

Critical incidents

Drafts or iterations

Lorenzo, G. & Ittelson, J. (2005). *An overview of e-portfolios*. Boulder, CO: EDUCAUSE.

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Surveys that Measure Attitudes—

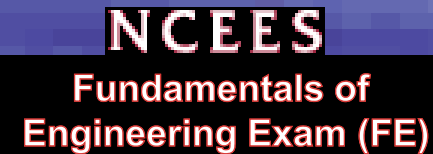
Item examples

| | Strongly Agree | Somewhat Agree | Somewhat Disagree | Strongly Disagree | |
|---|----------------|----------------|-------------------|-------------------|---|
| a. In some situations stealing is justified | ④ | ③ | ② | ① | Never OK to Steal |
| b. Interacting with students of diverse background is not important | ④ | ③ | ② | ① | Interacting with students of diverse improves my understanding of world |

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Other authentic assessments

Licensing exams



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Next Step Assessments (usually can be found with help of IR office)

- Average grade or grade distribution in next course
- Completion rates of next course
- Completion rates of sequence
- Success in major or major courses
- Retention/graduation/transfer

Boyd, L. (2009). *Toward informative assessment and a culture of evidence: A report from the Carnegie Foundation for the Advancement of Teaching*. Retrieved from www.carnegiefoundation.org

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Peer Analyses & Benchmarking (usually can be found with help of IR office or professional association)

- Identify a “best practice” or metric
 - ✓ NCES IPEDS Data Analysis Tool: <http://nces.ed.gov/ipeds/datacenter/login.aspx>
 - ✓ Accreditation Agencies
 - AASCB: International <http://www.aacsb.edu/knowledgeservices/home/Reports.asp> ,
 - NCATE: <http://NCATE.org> .)
 - ✓ Set up peer analysis data sharing group
(ex. Consortium for Student Retention Data Exchange, CSRDE)
<http://csrde.ou.edu/web/index.html>
 - ✓ Comparisons university-wide or across colleges or programs
 - ✓ Year-year or other point in time comparisons

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Your turn...

1. What is the Target of assessment?

- specific subject or content area
- can perform a certain task
- exhibits a particular skill, or
- demonstrates certain quality in his/her work (ex. creativity)
- holds a particular value (ex. empathy towards homeless)

2. What level will your assessment address?

- Evaluative Reaction:** Did students *Like* it?
- Evaluative Learning:** Did students *Learn*?
- Evaluative Behavior:** Did students *Use* it?
- Evaluative Results:** Did students have impact?
- ROI:** Did students have impact on \$\$\$

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Your turn....

3. Based on #2, what is your assessment tool

- Subject Matter Test
- Rubric
- Checklist
- Internship Evaluations
- Observations
- Peer Analyses/ Benchmarking, specify metric: _____
- Licensing Exam results (ex, Praxis, NCLEX)
- Surveys that measure attitude
- Portfolios
- Employer Surveys
- Next Step, specify: _____

4. How will you design your assessment tool?

- a. Who will be your Subject Matter Experts (SMEs)?
- b. Generate items/criteria
- c. How will you decide what items/criteria to keep?
- d. How will the SMEs decide what to keep & what to discard?
- e. How will you “*try out*” your assessment instrument (pilot)?

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Recommendations

- Encourage **common assessments** (rubrics, final exams, etc)
- Encourage common **faculty inquiry**
- Use the **IR Office** for Next Step Assessments
- Generate **questions**

What do successful courses have in common?

What are the study habits of successful students?

What resources need to be put in place?

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Questions?

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<http://bk.psu.edu/information/strategicplanning.htm>