

Assessment Simple and Doable: Where We Go from Here

Analyzing and Using the Results of Assessment

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Definition

Assessment of student learning is the systematic gathering of information about student learning and the factors that affect learning, undertaken with the resources, time, and expertise available, for the purpose of improving the learning.

The Three Basic Steps of Assessment

1. Articulate learning outcomes
“When students complete this [course, major, gen-ed program] we want them to be able to...”
2. Gather information about how well students are achieving the outcomes and why
3. Use the information for improvement

Process Goals/Outcomes vs. Learning Goals/Outcomes

Process Goals: The Office of Services for Students with Disabilities:

- The office will provide effective accommodations for disabilities based on law and/or current best practices
- Provide support for students in planning, articulating, and using accommodations to meet their needs
- Educate the campus community about disability issues

Learning Goals: (see p. 5)

Most Common Actions Based on Assessment Data

- Curricular change: add/alter courses, change the sequence of courses
- Pedagogy: teach a concept differently, use more/less small group work, more writing, different response to writing, etc.
- Structure, equipment, technology: Choose new software product, make technology more available or usable to students, change the configuration of the classroom or lab, etc.

Steps for Taking Action Based on Assessment Information

1. Choose something that
 - Is important
 - Is not what you wish it were
 - Is feasible: you have some control, and you think may have success
2. Analyze the data you have. Gather more data as needed.
3. Consult the research literature
 - What factors contribute to this kind of learning and problems with learning?
 - What strategies does research suggest are most effective?
4. Plan your action
5. Is there a way you can measure whether your action made a difference?
 - Pre-post or control-treatment designs
 - Asking students what helped them
 - Measure factors that are linked to learning, as a proxy for measurement of learning (example: measure students' participation in service-learning activities as a proxy for measuring the kinds of learning that research shows may result from extra-curricular activities)
 - Measure adherence to "good practice" that research links to learning outcomes (e.g. , measure amount of writing students do, kinds of feedback they get from faculty)

What if Student Learning Difficulties can be Traced to Specific Instructors?

- Choose another problem or another angle for the problem. Assessment should be kept separate from personnel problems.
- The underlying assumptions of assessment
 - We all have strengths and weaknesses
 - Everyone is doing his/her best
 - We choose a problem or issue on which we can all work together without assigning blame

What if We Need More Resources for our Action?

- Use assessment data to make the case for more resources
- Work with the resources available: take whatever steps you can

What if We Get Punished for Students' Learning Difficulties?

Assessment requires that everyone focus on something that can be improved. No single department or program stands out because they named a problem.

Competent professionals naturally want to improve, and they work hard to do so. In a study of "What the Best College Teachers Do," Bain (2004) found that "excellent teachers develop their abilities through constant self-evaluation, reflection, and the willingness to change." (p.

- b. Put the annual meeting in place NOW, without waiting for the perfect data.
- c. At the meeting, consider whatever data you have about learning, no matter how incomplete or inadequate.
- d. Outcomes of the meeting:
 - i. ONE action item to improve student learning, with a timeline and assignment of responsibility
 - ii. ONE action item to improve the quality of data, if needed, with a timeline and assignment of responsibility
- e. Keep minutes of the meeting
 - i. To serve as your own record and reminder
 - ii. To document for accreditors that assessment is taking place

Appendix A: Examples

Example #1

Question: can we improve student learning in developmental math?

Data:

- Enrolment and Pass Rates
 - 55% of our students are in developmental/ pre-college-level math classes
 - Pass rates: 71% for math classes, compared with 82% college overall courses. Nationally, “as low as 50%.”
- Detailed analysis of students who do/do not pass
 - Students who place into MAT 107: pass rate 77%
 - Students who come into MAT 107 via MAT 106: 55%
- Questionnaire to MAT 107 students about their level of prep in various skill areas, before entering the course. Highest correlation with success in 107 were high levels of self-reported prep in algebraic manipulation skills, exponential and logarithmic functions, and function notation and concepts.
- Pre-post test in MAT 107, correlated to grades. Success in 107 correlates with higher entering skills taught in 106: linear equation, quadratics, exponent, fractions.

Hypothesis: students who place into 107 from high school are seeing key concepts for the second time, after having had them in high school. Students placing in from 106 are seeing them for the first time.

Action: In MAT 106, pilot several sections with one extra weekly contact hour to help students with the most important concepts/skills noted above from the data.

Example #2

Question: Is the Studio working for student learning?

Data: survey of students in Studio courses. 55% return.

- Almost half used the Studio every day
- Students using the Studio came from every math course.
- Many claimed the Studio was a factor in their success
- Only concern raised was that students don't have as much access to faculty help as they would like (faculty person was busy with other students, or Studio not staffed as many hours as students need).

Action: Extra staffing hours not possible economically. Signs posted in the Studio will suggest: "If no staff member can help you at the moment, try these strategies...." Also, post online and on course web page the hours when the Studio staff is least busy, encouraging students to use those hours.

Example #3

Question: Are students learning critical thinking in introduction to literature?

Data:

- Three faculty teaching intro lit review a sample of student papers from lit classes
- Faculty questionnaire asks what aspects of critical thinking are most difficult for their students, and what aspects they would most like to discuss with colleagues.

Conclusion: students are having greatest trouble with moving from summary of the literature into analysis

Actions:

1. Post helpful teaching hints online
2. Faculty workshops and brown bags to share ideas about how to move students from summary to analysis
3. Rewrite course description to emphasize literary analysis
4. Develop sample rubric and grading criteria and distribute these to all faculty teaching intro lit

Example #4

Question: Is the office of services for students with disabilities (SSD) achieving its goals for the students it serves?

Learning Goals:

1. SSD Students will establish personal goals for their college experience
2. SSD Students will be able efficiently and effectively to pursue their college goals
3. SSD Students will articulate the specific accommodations for which they are eligible and

which they require for their success in the classroom and future.

4. Students will increase the personal skills, attitudes, and behaviors that will help them achieve their goals
5. SSD Students will manage their accommodation needs effectively and efficiently
6. SSD Students will interact appropriately with those who help them: drivers, sign language interpreters, transcribers, note takers, proctors, readers
7. Faculty and staff will increase their use of the principles of universal design and universal design for instruction, as well as their requests to the office for accommodations at events (e.g. captioned videos, sign language interpreters)

Data:

- Examination of students' personal goal statements and plans for accommodation
- Retention, GPA
- Surveys and focus groups of SSD students
- Timeliness, accuracy, and frequency of requests to the SSD office from students for accommodations and from faculty/staff for videos and accommodations
- Examination of sample courses and programs to identify principles of universal design

One Problem that Emerged: Students express dissatisfaction with transportation arrangements.

What actions might the office take?

Example #5

Question: Why are so many students dropping out or doing poorly in Medical Terminology course that is required for many health-related programs?

Data:

- Faculty committee reviewed sample of mid-term and final exams (common for all sections)
- Survey of students, asking what was most difficult for them in the course and what strategies had helped them most

At a committee meeting, one faculty member asked, "Do you suppose that we're looking at a reading problem?" That led to a further collection of data:

- Correlation between exam scores, reading test scores, and completion of a college reading course

Hypothesis: Reading skills are critical to success, and some students do not have appropriate skills. Completing the college's reading course increases chance of success in the med term course.

What actions might the Med Term faculty and their health programs take?
(from Walvoord and Anderson, 2010)

Example #6: Parkland Community College: Aggregating Classroom Assessment

Teaching center has offered courses and workshop for faculty every semester. A total of 300+ faculty have attended. The courses help faculty answer four questions:

- What are we doing? (goals and objectives)
- Is it working? (assessment tools)
- How do we know? (data gathering)
- What changes are we making? (adaptations)

Example: Chemistry 101

- Department administered same performance assessment on the property of density in all sections over several fall semesters. After doing a lab on density, each student was given a solution of unknown density. Students then had to choose the right equipment, make all necessary measurements, record the correct data, and, finally, calculate the density of the unknown solution. (p. 40)
- Analysis of results by faculty led to actions:
 - New objectives and guidelines for organizing the labs
 - Changes in assessment and instruction: “students would now be assessed, evaluated, retaught, and reassessed until skills improve to an acceptable level.” (p. 40)
 - Specific scoring rubric for each step, given to students ahead of time
- “Data collected so far have shown an improvement in proper use of lab procedures and lab equipment as well as a higher percentage of correct calculations of density.” (p. 40)

(Fay Rouseff-Baker and Andrew Holm. 2004. Engaging faculty and students in classroom assessment of learning. In Andreea M. Serban and Jack Friedlander (Eds.). *Developing and implementing assessment of student learning outcomes*. New Directions for Community Colleges, no. 126. San Francisco: Jossey-Bass.)

Example #8

Institutional data from Community College Survey of Student Engagement shows the college lower than its peers on “engagement.”

What steps might be taken?

Examples from Broome’s Fall 2011 Annual Report to the Campus by the Standing Committee on Student Learning Assessment

General Education Assessments

English 110

Revised assessment instrument

Outcomes	Met/Exceed Expec's	Approa- ching	Did not meet
Students will use information and ideas from texts to support a thesis, implicit or explicit; students will represent information and ideas accurately.	60%	35%	5%
Student will write in Standard Written American English, using diction appropriate to a college-level audience.	48%	32%	19%

Action: Assessment Committee will meet and then discuss changes with comp faculty.

English 108 (ESL)

Essays evaluated according to an approved essay rubric

	Met/Exceed Expect's	Approaching	Did not meet
?	37.5%	37.5%	25%

Action: Department:

- Revised course objectives
- Designed scoring rubric to be used by all instructors
- Plans for further collaboration of faculty on common assignments, texts and instructional materials.

Theater 102

Students responded to an essay prompt regarding making Musical Theatre more appealing to young people. Based on reading of the essays:

Actions:

- Change order of topics in the course
- Use current musical theatre pieces and their cultural ramifications before tackling the historical works

Theatre 114

Outcome: Acquire the performance skills necessary to share a believable, honest and clear interpretation of a literary work to an audience.

Information: Students wrote a Dramatic Analysis of the literary work they were interpreting and wrote a self-evaluation of their performance of the work. Faculty evaluated both works.

Actions:

- More careful procedure and guided study for the exploration and writing of the Dramatic Analysis.
- More performance-based activities earlier in the semester

Music 106

Outcome: understand musical intervals that were studied in Music Theory I, a pre-requisite course.

Information: Aural identification and written exercises.

75% of the students did not meet the standard.

Actions:

- Require a B in pre-requisite course
- More extensive review at beginning of 106
- More frequent assessment throughout the semester

Program Learning Assessments

Business Information Management AAS

Information: rubric to assess project or internship in each area.

Scoring $\frac{3}{4}$ or higher: Office Admin 90%; Web Development 100%, Office Technology 78%, Desktop Publishing 100%.

Actions: Faculty felt assessment could be improved by common rubric for all class sections and integrating assessment with student portfolios.

Financial Services

Assessment revealed that student exposure to real life client interaction is limited and there is a need for more emphasis on networking and building a client base.

Actions:

- Incorporate more role playing
- Create module on how to network today using various kinds of social media.

Appendix B: Sample Rubric

For Student Literary-Critical Essays

Note: such a rubric may be developed for use by all faculty teaching the literature course, or faculty may be free to develop their own rubrics, perhaps using this as a guideline, or faculty may be asked to incorporate one or two common items into their own rubrics.

5	4	3	2	1
<p>Thesis: The thesis of the paper is clear, complex, and challenging. It does not merely state the obvious or exactly repeat others' viewpoints, but creatively and thoughtfully opens up our thinking about the work.</p>	<p>The thesis is both clear and reasonably complex.</p>	<p>The thesis of the paper is clear. It takes a stand on a debatable issue, though the thesis may be unimaginative, largely a recapitulation of readings and class discussion, and/or fairly obvious.</p>	<p>Thesis is relevant to the assignment. It is discernible, but the reader has to work to understand it.</p>	<p>Thesis is irrelevant to the assignment and/or not discernible.</p>
<p>Complexity and Originality: The essay is unusually thoughtful, deep, creative, and</p>	<p>The essay is thoughtful and extensive in</p>	<p>The writer goes somewhat beyond merely</p>	<p>Writer moves only marginally beyond merely</p>	<p>The paper is mere paraphrase</p>

5	4	3	2	1
<p>far-reaching in its analysis. The writer explores the subject from various points of view, acknowledges alternative interpretations, and recognizes the complexity of issues in literature and in life. Other works we have read and ideas we have discussed are integrated as relevant. The essay shows a curious mind at work.</p>	<p>its analysis. It acknowledges alternative interpretations and recognizes complexity in literature and in life. Some other works are integrated as relevant.</p>	<p>paraphrasing someone else's point of view or repeating what was discussed in class. AND/OR the essay does not integrate other relevant works we have read.</p>	<p>paraphrasing someone else's point of view or repeats what was discussed in class.</p>	<p>or repetition.</p>
<p>Organization and Coherence: The reader feels that the writer is in control of the direction and organization of the essay. The essay follows a logical line of reasoning to support its thesis and to deal with counter-evidence and alternative viewpoints. Sub-points are fashioned so as to open up the topic in the most effective way.</p>	<p>As for "5" but sub-points may not be fashioned to open up the topic in the most effective way.</p>	<p>The reader feels that the writer is in control of the direction and organization of the essay most of the time. The essay generally follows a logical line of reasoning to support its thesis.</p>	<p>The essay has some discernible main points.</p>	<p>The essay has no discernible plan of organization.</p>
<p>Evidence, Support: The writer's claims and interpretations are richly supported with evidence from the works we have read, secondary sources, and sensible reasoning. The writer assumes the reader has read the work and does not need the plot repeated, but the writer refers richly and often to the events and words of the literature to support his/her points.</p>	<p>As for "5" but the writer may briefly drop into mere plot summary</p>	<p>The writer's claims and interpretations about the works are generally backed with at least some evidence from the works. The writer may briefly drop into mere plot summary</p>	<p>The writer's claims are sometimes backed with evidence and/or the paper drops often into mere plot summary.</p>	<p>The paper is primarily plot summary.</p>

5	4	3	2	1
Style: The language is clear, precise, and elegant. It achieves a scholarly tone without sounding pompous. It is the authentic voice of a curious mind at work, talking to other readers of the literary work.	The language is clear and precise.	The language is understandable throughout.	The language is sometimes confusing. Sentences do not track.	The language is often confusing. Sentences and paragraphs do not track.
Sources: The essay integrates secondary sources smoothly. It quotes when the exact words of another author are important, and otherwise paraphrases. It does not just string together secondary sources, but uses them to support the writer's own thinking. Each source is identified in the text, with some statement about its author; there are no quotes just stuck into the text without explanation.	As for "5" but sources may occasionally be quoted with no contextual explanation AND/OR writer may use direct quotation and paraphrase in less than optimal ways.	The essay does not just string together secondary sources, but uses them to support the writer's own thinking.	The essay strings together secondary sources.	There is no use of secondary sources.
Grammar, Punctuation: There are no discernible departures from Standard Edited Written English (ESWE)	There are a few departures from ESWE	There are no more than an average of 2 departures from ESWE per page in the critical areas listed below.	There are more than 2.	Some portion of the essay is impossible to read because of departures from ESWE.

Critical Areas:

- Spelling or typo
- Sentence boundary punctuation (run-ons, comma splices, fused sentences, fragments)
- Use of apostrophe, -s, and -es
- Pronoun forms
- Pronoun agreement, and providing antecedents for pronouns

- Verb forms and subject-verb agreement
- Use of gender-neutral language
- Capitalization of proper nouns and of first words in the sentence

Work Cited

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Resources

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General Education Assessment

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