Faculty Assessment Notes

2009-2010

Student Learning Assessment Committee
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INTRODUCTION

Faculty Assessment Notes has been prepared for full-time and adjunct faculty who teach for Mesalands Community College. This practical guide to student learning Assessment is a supplement to the Student Learning Assessment Model developed and overseen by the Student Learning Assessment Committee. Faculty Assessment Notes will serve as a user’s manual and supplement to the information provided by the Assessment Mentors from the Student Learning Assessment Committee. All adjunct and new full-time faculty are assigned a team of mentors to assist them in assessing student learning each semester. Any other faculty wishing to have assistance may also request a mentor team. The goal of the committee is to do the best job possible to facilitate faculty in assessing student learning both formatively and summative. We want to help you help students to learn. We are just as excited about helping students to learn as you are.

Mesalands Community College is clearly committed to student learning as can be seen by our College Mission and Goals.

MISSION

Mesalands Community College is an institution of higher education that promotes student learning through quality education and services while fostering personal growth, leadership, and opportunity to a culturally diverse community.

GOALS

The Goals of Mesalands Community College are to provide:

- An environment where learning is appreciated, encouraged, and assessed.

- Academic and technical programs for qualified individuals to enhance their lifelong educational opportunities with an emphasis in a general core base of knowledge.

- Accessible, multi-faceted services to qualified participants.

- Opportunities to develop leadership skills and achieve personal growth by valuing academic and social responsibility.

- Quality community service programs responding to the diverse needs of the region.
Since 1996, Mesalands Community College has been assessing how students learn. Why not just use grades? Grades may not be the best measure of learning as demonstrated by some people who graduate from high school without being able to read. Grades are based on many factors apart from learning. Did you not spend a lot of time trying to figure out what an instructor wanted you to produce and in what format, what his/her questions were like on exams, etc? As faculty, we use Assessment to see through the biases and get information on what students are actually learning. This helps us, because we get feedback that can make us better instructors. It is important to note that Assessment is not used to judge teachers; it is used to improve learning. Similarly, it is important to inform students that Assessment measures are not necessarily part of their grades.

It is also very important that Assessment provides the College with data to demonstrate how well our students learn, and this data is provided to our stakeholders such as the Board of Trustees, legislators, and accrediting agencies.
WHAT YOU NEED TO DO FOR ASSESSMENT
AS A FACULTY MEMBER

At the end of each semester that you teach classes, you will need to turn in two forms. First is a typed (handwritten copies will not be accepted) completed copy of the Faculty Outcomes Assessment Form (Appendix A) for each course that you teach. This form will summarize what assessment you have done during the semester for each of the courses you taught. The Faculty Outcomes Assessment Form asks you a series of ten questions that you need to answer:

1. If you have taught this course before, what changes did you make this semester as a result of feedback; OR if someone else has taught this course before, how did you adjust your curriculum based upon the feedback results that they received?

   We use assessment to improve student learning and teaching methods from semester to semester, so it is important that we are utilizing feedback from previous course offerings. If you have not taught this course before, ask the Director of Institutional Development (or co-chair of the Student Learning Assessment Committee) for copies of assessment reports turned in by previous instructors of this course.

2. What assessment tools were utilized this semester and how often?

   Simply list the classroom assessment techniques (CATs) that you used during the semester. If you don’t know what a CAT is, refer to the section on Basic Assessment Techniques/Methodologies; if you are an adjunct faculty member, please feel free to ask your assessment mentor as well.

   The number of CATs that are required for a course depends upon the number of credit hours for the course. For one credit hour classes, one CAT is required; for two credit hour classes, two CATs are required; for three or more credit hour classes, three CATs are required. CATs are required for classroom based courses, as well as laboratory courses. It is the instructor’s discretion as to which CATs are utilized for each of their courses.

   Internship students will be asked to submit a minimum of three journal reports to their instructor during their internship experience. The journal reports will serve as CATs.

   Students utilizing distance learning venues will also be asked to submit a minimum of three journal reports to their instructors during the course to serve as CATs.
3. What were some of the most significant results that you received this semester?

*It is not necessary to list all your CAT results. Simply write a narrative (one to three sentences) about what significant results of student learning you gained from using the various CATs. These could be results you expected or did not expect.*

4. What changes would you make next time you teach this course as a result of Classroom Assessment Techniques?

*Based upon the results of your CATs, what changes will you be making next time you teach this course - if any.*

5. Measurable course objective on syllabus:

*What are the measurable course objectives listed on the first page of the course syllabus? You will need to copy this page and fill it out for each listed objective. For more on measurable course objectives refer to the section on Basic Assessment Technologies/Methodologies.*

6. How was this measurable course objective assessed?

*What is the measurement tool listed on the course syllabus?*

7. What results did you get and how did they compare to your measurable course objective?

*What did you learn from the results of assessing this course objective?*

8. What changes will you make in your course next time you offer it as a consequence of these results?

*Will you teach the course differently next time as a result of the assessment of your course objective?*

9. Did you make any changes to your course as a result of the pre-test?

*If you adjusted your class as a result of your pre-test you need to document these changes. If you are unfamiliar with pre- and post-tests see Appendix A. Internship experiences are assessed by means of the Performance Evaluation completed by the employer and will serve as a pre-/post-test.*
10. What will you change the next time you offer this course as a result of analysis of the results of your pre-/post-test?

*After the pre- and post-test you may have noticed some areas that need adjusting the next time you offer this course*

You will need to complete the Faculty Outcomes Assessment Form. This form will need to be emailed as an attachment to philipk@mesalands.edu or provided on a disk, on or before the date listed in the following table. Electronic forms can be obtained on the College’s server or you may request them from Dr. Philip Kaatz or your assigned mentor.

**Assessment Responsibilities of Individual Faculty for the 2008-2009 Academic Year**

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall 2009</strong></td>
<td></td>
</tr>
<tr>
<td>August 28</td>
<td>Submit, if necessary, course syllabi for classes being taught during this semester with new or revised measurable course objectives to the Chair of the Student Learning Assessment Committee</td>
</tr>
<tr>
<td>September 4</td>
<td>Suggested date to carry out pre-test in all classes</td>
</tr>
<tr>
<td>September 18</td>
<td>Suggested date to carry out first CAT in every course</td>
</tr>
<tr>
<td>October 9</td>
<td>Suggested date to carry out second CAT in every course</td>
</tr>
<tr>
<td>November 6</td>
<td>Suggested date to carry out third CAT in every course</td>
</tr>
<tr>
<td>December 4</td>
<td>Suggested date to carry out post-test in all classes</td>
</tr>
<tr>
<td>December 14</td>
<td>Submit report on semester’s classroom assessment to the Student Learning Assessment Committee</td>
</tr>
</tbody>
</table>
### Spring 2010

<table>
<thead>
<tr>
<th>Date</th>
<th>Task Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 19</td>
<td>Submit, if necessary, course syllabi for classes being taught during this semester with new or revised measurable course objectives to the Chair of the Student Learning Assessment Committee</td>
</tr>
<tr>
<td>January 25</td>
<td>Suggested date to carry out pre-test in all classes</td>
</tr>
<tr>
<td>February 8</td>
<td>Suggested date to carry out first CAT in every course</td>
</tr>
<tr>
<td>March 5</td>
<td>Suggested date to carry out second CAT in every course</td>
</tr>
<tr>
<td>April 6</td>
<td>Suggested date to carry out third CAT in every course</td>
</tr>
<tr>
<td>May 3</td>
<td>Suggested date to carry out post-test in all classes</td>
</tr>
<tr>
<td>May 7</td>
<td>Submit report on semester’s classroom assessment to the Student Learning Assessment Committee</td>
</tr>
</tbody>
</table>

### Summer 2010 Session I Courses

<table>
<thead>
<tr>
<th>Date</th>
<th>Task Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 28</td>
<td>Submit, if necessary, course syllabi for classes being taught during this semester with new or revised measurable course objectives to the Chair of the Student Learning Assessment Committee</td>
</tr>
<tr>
<td>June 1</td>
<td>Suggested date to carry out pre-test in all classes</td>
</tr>
<tr>
<td>June 1</td>
<td>Suggested date to carry out first CAT in every course</td>
</tr>
<tr>
<td>June 9</td>
<td>Suggested date to carry out second CAT in every course</td>
</tr>
<tr>
<td>June 16</td>
<td>Suggested date to carry out third CAT in every course</td>
</tr>
<tr>
<td>June 23</td>
<td>Suggested date to carry out post-test in all classes</td>
</tr>
<tr>
<td>June 25</td>
<td>Submit report on semester’s classroom assessment to the Student Learning Assessment Committee</td>
</tr>
</tbody>
</table>
**Summer 2010 Session II Courses**

<table>
<thead>
<tr>
<th>Date</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 28</td>
<td>Submit, if necessary, course syllabi for classes being taught during this semester with new or revised measurable course objectives to the Chair of the Student Learning Assessment Committee</td>
</tr>
<tr>
<td>June 1</td>
<td>Suggested date to carry out pre-test in all classes</td>
</tr>
<tr>
<td>June 9</td>
<td>Suggested date to carry out first CAT in every course</td>
</tr>
<tr>
<td>June 25</td>
<td>Suggested date to carry out second CAT in every course</td>
</tr>
<tr>
<td>July 9</td>
<td>Suggested date to carry out third CAT in every course</td>
</tr>
<tr>
<td>July 19</td>
<td>Suggested date to carry out post-test in all classes</td>
</tr>
<tr>
<td>July 23</td>
<td>Submit report on semester's classroom assessment to the Student Learning Assessment Committee</td>
</tr>
</tbody>
</table>

**Summer 2010 Session III Courses**

<table>
<thead>
<tr>
<th>Date</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 23</td>
<td>Submit, if necessary, course syllabi for classes being taught during this semester with new or revised measurable course objectives to the Chair of the Student Learning Assessment Committee</td>
</tr>
<tr>
<td>June 28</td>
<td>Suggested date to carry out pre-test in all classes</td>
</tr>
<tr>
<td>June 30</td>
<td>Suggested date to carry out first CAT in every course</td>
</tr>
<tr>
<td>July 7</td>
<td>Suggested date to carry out second CAT in every course</td>
</tr>
<tr>
<td>July 14</td>
<td>Suggested date to carry out third CAT in every course</td>
</tr>
<tr>
<td>July 17</td>
<td>Suggested date to carry out post-test in all classes</td>
</tr>
<tr>
<td>July 23</td>
<td>Submit report on semester's classroom assessment to the Student Learning Assessment Committee</td>
</tr>
</tbody>
</table>
WHAT YOU NEED TO DO FOR ASSESSMENT
AS A LEAD INSTRUCTOR IN A PROGRAM

If you have any graduates during the semester in your program, you need to complete the Program Outcomes Assessment Form (Appendix B) at the end of the semester. This form will summarize what assessment you have done during the program of study of any graduating student. This form asks you a series of questions that you need to answer:
Faculty name: __________________  Semester: ______ Year: ______

Program name: ______________________________________

Credential: AA degree/AAS degree/certificate

I. Feedback from previous graduates

What changes did you make in this program as the result of feedback from assessment of previous graduates? The learning of all graduates of a program is assessed. How have you changed the program as the result of the assessment of previous graduates of the program.

Use your program objectives rubric to complete Section II

II. Assessment of Program Learning Outcomes (copy this section as needed for each outcome)

Learning Outcome Objective: Describe the learning outcome.

How many students were assessed? Quantify how many students were assessed.

How was this program learning outcome assessed? Describe the instruments and measures used to assess the learning outcome.

What was the expected performance for this learning outcome? How did students perform on this learning outcome? Please provide quantitative data. Describe the expected performance and then how the students actually did.

Describe the changes you will make to your program to increase the performance of learning outcomes. Explain the changes you will make to the program to increase the performance of the learning outcomes.
III. **Industry Standard Exam** *(complete only if relevant)*

Name of Industry Standard Exam:________________________________________

Sponsoring Organization:_______________________________________________

Test Date(s):________________________________________________________

What results did you obtain from the exam (please include the number of students that completed the exam, the number of full completions, and the number of partial completions on the first attempt)?  
*Quantify the results of the exam.*

Please complete this table as part of the results section.

<table>
<thead>
<tr>
<th>Dates of Classes</th>
<th>Number of Students Tested</th>
<th>Number of Students Passing on First Attempt</th>
<th>Number of Students Retested</th>
<th>Number of Students Passing Upon Retest</th>
<th>Total Number of Students Passing Upon First and Second Attempts</th>
<th>Percent of Students Passing Upon First and Second Attempts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What changes will you make to your program based on the results of the industry standard exam?  
*Explain the changes you will make to the program based on the results of the industry standard exam.*
## Assessment Responsibilities of Lead Instructors in Arts and Sciences/Applied Sciences Programs for the 2009-2010 Academic Year

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall 2009</strong></td>
<td></td>
</tr>
<tr>
<td>November 9</td>
<td>Submit revisions of measurable program objectives to Student Learning Assessment Committee</td>
</tr>
<tr>
<td>December 7</td>
<td>Submit reports on program assessment for any students who graduate at the end of the semester to the Student Learning Assessment Committee</td>
</tr>
<tr>
<td><strong>Spring 2010</strong></td>
<td></td>
</tr>
<tr>
<td>April 12</td>
<td>Submit revisions of measurable program objectives to Student Learning Assessment Committee</td>
</tr>
<tr>
<td>May 10</td>
<td>Submit reports on program assessment for any students who graduate at the end of the semester to the Student Learning Assessment Committee</td>
</tr>
<tr>
<td><strong>Summer 2010</strong></td>
<td></td>
</tr>
<tr>
<td>June 21</td>
<td>Submit revisions of measurable program objectives to Student Learning Assessment Committee</td>
</tr>
<tr>
<td>July 19</td>
<td>Submit reports on program assessment for any students who graduate at the end of the semester to the Student Learning Assessment Committee</td>
</tr>
</tbody>
</table>
BASIC ASSESSMENT TECHNIQUES/METHODOLOGIES

THE PRE-TEST/POST-TEST

A pre-/post-test is basically the same test that is given at the beginning of the course/program and at the end. Imagine you have two students starting the Automotive Technology program. John has a father who is an amateur mechanic and Fred thinks that 10W-40 is a reggae band. Both get A’s in their first class. However, how much did they learn? Did John already know most of the material? The way to assess what different students learn is to compare what they knew at the beginning of the course with what they knew at the end - give them the same test twice. The pre-/post-test gives quantifiable results that can be used to assess the learning that occurred during the course/program and then reported (e.g., compare average scores in both tests, etc.). It is recommended that instructors collect and maintain copies of the pre- and post-tests to prevent students from memorizing the material that would impact the results.

SIXTEEN EASY CATS (CLASSROOM ASSESSMENT TECHNIQUES)

Classroom Assessment Techniques (CATs) are methods that are used in the classroom to get feedback from your students on how they learn. CATs are not used to judge your teaching - they are to help you improve the learning of the students. You decide which CAT to use. You decide how to modify your teaching (if necessary). CATs help you and the students.

Rule One when it comes to CATs is: DON'T PANIC. They are quick and easy to use and can provide lots of interesting information which can help us improve student learning.

1. Let’s start with a very simple, but effective one - The One-Minute Paper. A physics professor at Berkeley came up with this one, but it’s understandable nonetheless. What you do is ask students to write down (anonymously) the answers to two questions at the end of the class.

   (A) What is the most important thing you learned in class today?

   (B) What is the most important question that you would like to ask about today’s topics.

By quickly scanning students' responses, the instructor can make adjustments in the next class to capitalize on what students have already understood well and to clear up confusions that could slow their further learning. Dead easy!
2. Let’s try another one - the *Muddiest Point*. What you do is ask each student to write down on a piece of paper (anonymously) at the end of class the answer to the following question: “What was the muddiest (most confusing/hard to understand) point in today’s class?”

Arrange the answers into categories with a miscellaneous pile for one-of-a-kind answers. In the next session, or as soon as possible, go over the main points that students had problems understanding. If only one or two students had problems with a point, encourage them to come and see you individually so that you do not waste too much class time.

3. A third CAT that runs along the same lines as the first two is the *Memory Matrix*.

This method requires the instructor to provide a simple matrix to each student (or group of students) to fill out at the end of class.

Here is an example from an Anatomy and Physiology class on the digestive system:

<table>
<thead>
<tr>
<th></th>
<th>Structure</th>
<th>Function</th>
<th>Enzyme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mouth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stomach</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The student (or groups of students) fills in the blank cells. The instructor collects the matrices and can quickly see what areas of the subject have not been well understood.

Think of a matrix that you could use in your classes. Here’s one for Spanish verb endings:

<table>
<thead>
<tr>
<th></th>
<th>-ar</th>
<th>-er</th>
<th>-ir</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irregular</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. A *Background Knowledge Probe* is fairly self-explanatory. It is a measure of what the student brings to the class. This technique is utilized before introducing an important new concept or subject in your class.

Present your students with two or three questions that evaluate their prior knowledge. For example, in an English literature class that is just about to start looking at Shakespeare’s plays, the instructor might ask the students...
which of the great bard's works they had heard of and, further, if they had ever seen a movie or TV presentation of them.

Obviously an instructor can do a better job of teaching if he/she knows how ignorant or informed the students are about a certain topic. Do you need to slow down or can you speed up?

5. The **Focused Listing** technique is used just after you have covered an important topic. First, the instructor needs to write that topic at the top of a sheet of paper. Then, in only a couple of minutes, he/she needs to write down all the terms that he/she thinks are related to this topic.

Now the process is repeated with the students (giving them more time). The results can be compared and a feel can be obtained for what the students understood and whether they missed any major points.

6. The **Misconception/Preconception Check** is another way of checking on knowledge, but with a twist. The greatest obstacle to student learning may not be a lack of prior knowledge, but rather the existence of prior knowledge.

Select one or two troublesome areas/beliefs about which people are commonly misinformed (e.g., How can you catch HIV? What causes the seasons? Are any races smarter than others?). Use multiple choice questions as they are more anonymous. Looking at what misconceptions your students might have will help you to design your approach to the teaching of that topic.

7. The **Categorizing Grid** is a way of determining if the students understand "what goes with what." You give the students a grid with two or more important categories and a scrambled list of terms (images, equations, facts) that fit in these categories. Students are given a limited time to arrange the terms into categories.

This CAT prompts students to make explicit the implicit rules that they are using to categorize information and allows the instructor to see potential problems in the understanding of a topic.

8. Everyone has sometimes listed the pros and cons of a pressing decision. The **Pro and Con Grid** utilizes this method as a CAT. The instructor asks the students to list the pros and cons of an action in a few minutes. The instructor might suggest how many of each is required. Even a quick reading of the students' lists will provide important information on the depth of their analytical skills and their capacity for objectivity.

Examples of issues from different disciplines that could be addressed might include:
English - Imagine you are Hamlet and list three pros and cons of murdering your stepfather.

Business - List three pros and cons of a two-career couple filing federal income taxes separately.

9. The *Approximate Analogies* technique requires the student to complete the second half of an analogy - A is to B, as X is to Y - where the instructor has supplied the first half (A is to B). This allows instructors to find out if students understand the relationship between two concepts and to test their creativity in thinking of an approximate analog.

Example (Physics):

Mass is to volume as

______________ is to ____________

Example (Sociology):

Income is to class as

______________ is to ____________

10. *Problem Recognition Tasks* presents students with examples of common problem types and asks them to identify them. In many fields students learn a variety of problem-solving methods, but often they have difficulty determining which kinds of problems are best solved by which methods.

A psychology example: Students are given half-page mini case studies each describing an adolescent referred from counseling. The student must make an initial judgment about the problem in each case (substance abuse, family conflicts, etc.).

A couple of helpful hints:

(A) Many real-world problems are complicated and they should be simplified for this CAT.

(B) Most students have not been explicitly taught this skill and they should receive some instruction before this CAT is used.

11. The *Annotated Portfolio* is a CAT that is mainly used in fine and applied arts (including technology). The assessment of portfolios is a common and well-accepted practice in the arts. In this CAT the student provides the instructor with a limited sample of his/her creative work (portfolio), as well as an
explanation of that work in relation to the course content or goals (the annotated part). This allows the instructor to assess the student’s skill at making explicit connections between individual creative work and the course content. To put it another way, it helps faculty see how well students can apply what they have learned and how well they can explain those applications.

An example from Drawing: Students are asked to submit an Annotated Portfolio containing two or three drawings in which they have creatively resolved the problems of line, form, shading or perspective. Along with the drawings, they are required to submit one or two pages of explanation of how they creatively dealt with these traditional drawing problems and explicitly relating their solutions to the course content.

An example from that other well-known “art,” Automotive Technology: The instructor requires students to keep a detailed journal (with sketches) of problems they had diagnosed and repaired. After a month the students are told to choose two different engine problems that they had creatively diagnosed and, in five pages or less, to explain and illustrate what was done and why.

In the highly unlikely event that the Automotive Technology students complain about the extra work, the instructor could point out that if they get a job at a repair shop in the real world where they will have to explain problems in simple terms to their customers, doing this CAT would help them practice a useful skill.

12. The Application Card is a very simple CAT to utilize. After students have heard or read about an important principle, generalization, theory, or procedure, the instructor hands out an index card and asks them to write down one possible real-world application for what they have just learned.

An example from Physics: Newton’s Third Law basically says, “To every action there is always an equal reaction.” Apply three applications of this law to everyday life around the house.

An example from Business: After discussion of Total Quality Management (TQM), give at least two feasible, low-cost applications of TQM at a company they are familiar with, or the college they attend.

An example from Psychology: Psychologists have long noted the effects of “primacy” and “recency” on recall of information. These effects have some implications for classroom teaching and learning. Suggest one or two applications of these implications for teachers using the lecture method. In many professions and the service sector, success depends on one’s ability to translate highly specialized information into language that clients or customers will understand.
13. **Directed Paraphrasing** is an assessment technique designed to assess and help develop that valuable skill. In this CAT, students are directed to paraphrase part of a lesson plan for a specific audience, using their own words.

An example from Farrier Science: In one or two sentences, paraphrase what you have learned about customer relations to inform a customer about the implications of a horse that has foundered and could potentially die.

An example from Computer Science: In plain language and in less than five minutes, paraphrase what you have read about computer viruses for a vice president of a large insurance company who is ultimately responsible for database security.

14. Here is one that is sure to interest you! This CAT is called: **Profiles of Admirable Individuals**. While this CAT does not require much faculty time in preparation for use of this CAT, it does involve a high amount of time and energy for student response and faculty analysis of data collected.

This straightforward technique requires that students write a brief, focused profile of an individual - in a field related to the course - whose values, skill, or actions they greatly admire. This technique assesses what students value by asking them (1) to select and profile an individual in the field whose values and behavior they admire, and (2) to explain what they find admirable about that individual and why. This information can help faculty understand the images and values students associate with the best practice and practitioners in the discipline under study.

15. The **Classroom Opinion Poll** is a method to discover student opinions about course-related issues. Students often have pre-existing opinions about topics covered in classes. The opinions that are often unsupported by evidence can affect how and what students learn.

At the 1997 New Mexico Higher Education Assessment Conference, assessment pioneer Dr. Thomas Angelo showed a very interesting videotape. All undergraduates at Harvard University take a course that includes basic astronomy. A reporter went to a Harvard graduation ceremony and asked a sample of students what causes the seasons. Ninety percent of the students had a strong opinion about the answer, but their ideas were wrong. These students learned an idea early in life about what causes seasons. They went to Harvard, learned the real reason, passed the exam, and immediately forgot what they had learned!

The bottom line is that prior opinions affect how you learn. A **Classroom Opinion Poll** consists of asking the students a question about a particular topic. Students are more likely to have opinions on some topics more than
others. Therefore, this CAT works best in social sciences, humanities and business.

A History example: Students are asked to respond to the following prompt:

European civilization would have advanced farther and more quickly if Napoleon had not gone to war with Russia and Britain.

Circle the answer that best describes your view.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

This CAT can be used to prepare to discuss a controversial issue and also as a pre- and post-Assessment to determine whether the student’s opinion has changed.

16. Another interesting CAT is the Student-Generated Test Question. The faculty member asks the student to propose questions that they think will be on the test and to provide written answers. This is an out-of-class assignment and is quick to utilize.

This CAT allows the faculty to assess at least three aspects of student learning:

(A) What students consider the most important parts of the course content.

(B) What students think are fair and useful test questions.

(C) How well the students can answer the questions.

This information not only provides direction for teaching, but can also alert the instructor to inaccurate expectations about upcoming tests.

Student questions may raise interesting ideas, such as the fact that sometimes homework or lab assignments have different knowledge or skills than are included in tests. Some instructors even use some of the student questions in reviews for future classes.

All these examples and many more can be found in Cross and Angelo’s book, Classroom Assessment Techniques, an excellent handbook for students that is located in the Assessment Reserve section in the College’s Library.
CAPSTONE PROJECTS

Capstones are projects within classes, or courses within programs, that provide for synthesis of what has been learned. A capstone project in a class might be a term paper or a class project in which many, or all of the skills and thinking processes learned during the semester can be utilized.

Many programs utilize capstone classes that "bring it all together." In an art program, the capstone class might involve producing works of art and designing a show. A thesis in a general education class could serve as a capstone class. Often a program objective will specify a level of attainment in a capstone class.

MEASURABLE COURSE OBJECTIVES

Each course has a minimum of two measurable course objectives listed on the first page of the course syllabus that is on file in the office of the Dean of Instructional Services. All of the measurable course objectives are assessed every time that a course is taught.

MEASURABLE PROGRAM OBJECTIVES

Each program has at least three objectives listed in the College Catalog. Lead instructors in each program have submitted a measurement tool to the Student Learning Assessment Committee. These are not listed in the catalog to avoid confusion. Each graduating student’s level of knowledge and/or skills in all certificate and degree programs is assessed against these objectives.

ASSESSMENT DAYS

Fall and spring semester students who have petitioned to graduate and who have earned 60 or more credit hours participate in the General Education Assessment (GEA) and ACT Collegiate Assessment of Academic Proficiency (CAAP). These are mandatory assessments and students are to be excused from classes. All full-time faculty are required to participate.
LIST OF APPENDICES

Faculty Outcomes Assessment Form........................................... Appendix A
Program Outcomes Assessment Form......................................... Appendix B

_Important note: All forms are subject to change_
Mesalands Community College
Faculty Outcomes
Assessment Report

Course Information
Instructor Name ___________________________ Semester ________ Year ________ Date Submitted ________
Dept ________ Number ________ Section ________ Credits ________ Course Description _______________________

Feedback from Previous Offerings
If you have taught this course previously, what changes did you make, if any, this semester as a result of feedback or if someone else has taught this course before how did you adjust your curriculum based on the feedback results that they received?

Classify any changes you made due to previous feedback in the following categories:
Content: ________ Methodology: ________ Exams: ________
Select ________ Select ________ Select ________
Environment: ________ Technology: ________ Assessment: ________
Select ________ Select ________ Select ________
Other: _______________________________________

Classroom Assessment Techniques (CATs)
What CATs were used this semester? ___________________________ how often? ________

What significant results did you have from CATs?

____________________________
Please describe any changes made this semester and/or anticipate making the next time this course is offered due to CATs:

Classify any changes you made *this semester due to CATs* in the following categories:

- **Content:** Select...
- **Methodology:** Select...
- **Exams:** Select...
- **Environment:** Select...
- **Technology:** Select...
- **Assessment:** Select...
- **Other:**

---

**Measurable Course Objectives (MCO's)**

**MCO Number:**

Measurable course objective from the syllabus:

How was this MCO assessed?

What results did you get and how do they compare with the course objective?

Please describe any changes made this semester and/or that you anticipate making the next time this course is offered due to this MCO:

Classify any changes you made *due to MCO's* in the following categories:
Pre-Test/Post-Test Analysis

Please describe any changes you implemented this semester based on your analysis of the pre-test:

Provide a quantitative analysis of the results of your pre-test and post-test scores:

# of Students: __________ Pre-Test Ave: __________ Post-Test Ave: __________

Please provide some comments about your results:

Classify any changes you made due to the pre-test results in the following categories:

Content: Select... Methodology: Select... Exams: Select...
Environment: Select... Technology: Select... Assessment: Select...
Other:

Please describe, if any, the changes you anticipate implementing the next time you teach this course as a result of your pre-test and/or post-test score analysis:

Other Changes

If you have any changes to your course to report for some other reason, select them here:

Content: Select... Methodology: Select... Exams: Select...
Environment: Select... Technology: Select... Assessment: Select...
Select.  Select.  Select.

Other:

Please provide some comments for your reasons for making these changes:
STUDENT LEARNING ASSESSMENT
STANDARDIZED REPORT

Program Title

Reporting Period  Semester:_______________ Year:____________

Short description of program very similar to that published in the catalog. May include mission and vision of program.

Program Objectives/Competencies:

Upon completion of the __________ (Certificate/Associate name as it appears in catalog) Program:

1. The student will be able to…
2. The student will be able to…
3. The student will be able to…
4. The student will be able to…
5. The student will be able to…

General Education Competencies:

Upon completion of the __________ (Certificate/Associate name as it appears in catalog) Program:

1. Students will read, write, listen and use verbal skills to organize and communicate information and ideas in personal and group settings (Communication).
2. Students will demonstrate mathematical principles and scientific reasoning by applying appropriate methods to the inquiry process (Quantitative and Scientific Reasoning).
3. Students will identify, evaluate and analyze evidence to guide decision making and communicate his/her beliefs clearly and accurately (Critical Thinking).

Overview:

Short overview statement of assessment efforts specific to the program. An example could be as follows:

The (program name) assessment plan is in its _____ year and is addressed via the Plan→Do→Study→Adjust Cycle that begins every fall term and follows one (program name) cohort from first term through graduation.
Program Objectives Assessment Plan:

Answers the who, what, where, when, how and to what extent as it relates to the implementation of the program objective-related assessment plan. A table format presentation (referred to as Curriculum Mapping) is suggested in that it can capture the “big picture” of the assessment plan and may look as follows:

<table>
<thead>
<tr>
<th>PROGRAM OBJECTIVE</th>
<th>MEASUREMENT TOOLS</th>
<th>COURSES IN WHICH PROGRAM OBJECTIVES ARE PRESENTED AND/OR MEASURED.</th>
</tr>
</thead>
</table>
| Program objective #1 written out. | Bulleted list of specific measurement tools:  
- Written Exam  
- Practical Exam  
- Business Plan  
Remember, you should have at least 3 separate measures to evaluate whether or not the program objective has been accomplished (referred to at "triangulation"). | Bulleted list of those courses that the measurement tools listed in the middle column are presented and/or measured:  
- DMT 151  
- DMT 164  
- DMT 274 |
| Program objective #2 written out. |  |  |
| Program objective #3 written out. |  |  |
| Program objective #4 written out. |  |  |
| Program objective #5 written out. |  |  |

Program Objective Results:

This section presents the raw data results of all those measurement tools identified above (in the second column). Again, it is suggested that this data be presented in table format. Each measurement tool results should have a very short introductory section. Following are examples that you may want to consider:

Measurement Tool: Written Exam*
Program Objective(s): 1, 3, and 4
Goal Results: 70% pass rate/75% cut score

<table>
<thead>
<tr>
<th>Reporting Period</th>
<th># of students attempting</th>
<th># passing</th>
<th>% passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>9</td>
<td>6</td>
<td>67% (Mean=78%)</td>
</tr>
<tr>
<td>2007-2008</td>
<td>5</td>
<td>4</td>
<td>80% (Mean=82%)</td>
</tr>
<tr>
<td>2006-2007</td>
<td>7</td>
<td>5</td>
<td>71% (Mean=80%)</td>
</tr>
</tbody>
</table>

*Written exam is based on the [Diesel Mechanics Association (2005)] identified knowledge, skills and behaviors.
Measurement Tool: Practical Exam  
Program Objective(s): 2, 3, and 5  
Goal Results: 90% pass rate/80% cut score

<table>
<thead>
<tr>
<th>Reporting Period</th>
<th># of students attempting</th>
<th># passing</th>
<th>% passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Electrical</td>
<td>5</td>
<td>3</td>
<td>60% (Mean=67%)</td>
</tr>
<tr>
<td>• Hydraulics</td>
<td>5</td>
<td>5</td>
<td>100% (Mean=77%)</td>
</tr>
<tr>
<td>• Heating and Air Conditioning</td>
<td>5</td>
<td>5</td>
<td>100% (Mean=89%)</td>
</tr>
<tr>
<td>2007-2008</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Electrical</td>
<td>8</td>
<td>5</td>
<td>71% (Mean=69%)</td>
</tr>
<tr>
<td>• Hydraulics</td>
<td>8</td>
<td>7</td>
<td>88% (Mean=86%)</td>
</tr>
<tr>
<td>• Heating and Air Conditioning</td>
<td>8</td>
<td>8</td>
<td>100% (Mean=87%)</td>
</tr>
<tr>
<td>2006-2007</td>
<td>DATA NOT AVAILABLE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Measurement Tool: Business Plan  
Program Objective(s): 4 and 5  
Goal Results: 90% “Average” or “Above Average”**

<table>
<thead>
<tr>
<th>Reporting Period (n)</th>
<th>Above Average</th>
<th>Average</th>
<th>Below Average</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009 (n=6)</td>
<td>2 (33%)</td>
<td>3 (50%)</td>
<td>0</td>
<td>1 (16%)</td>
</tr>
<tr>
<td>2007-2008 (n=7)</td>
<td>2 (28%)</td>
<td>3 (43%)</td>
<td>2 (28%)</td>
<td>1 (14%)</td>
</tr>
</tbody>
</table>

**Descriptive categories based on evaluation rubric.

General Education Competencies:

Upon completion of the __________ (Certificate/Associate name as it appears in catalog) Program:

1. Communication: Students will read, write, listen and use verbal skills to organize and communicate information and ideas in personal and group settings.
2. Quantitative and Scientific Reasoning: Students will demonstrate mathematical principles and scientific reasoning by applying appropriate methods to the inquiry process.
3. Critical Thinking: Students will identify, evaluate and analyze evidence to guide decision making and communicate his/her beliefs clearly and accurately.

General Education Competencies Assessment Plan:

Answers the who, what, where, when, how, and to what extent as it relates to the implementation of the general education competencies-related assessment plan. In other words, you need to repeat what you did for your program objectives for the general education competencies. A table format presentation (a.k.a. curriculum
Appendix B

mapping) is again suggested in that it can capture the “big picture” of the assessment plan and may look as follows:

<table>
<thead>
<tr>
<th>GENERAL EDUCATION COMPETENCIES</th>
<th>MEASUREMENT TOOLS</th>
<th>COURSES IN WHICH PROGRAM OBJECTIVES ARE PRESENTED AND/OR MEASURED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>College Rubric</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Program-Specific Rubric</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GEA</td>
<td></td>
</tr>
<tr>
<td>Quantitative and Scientific Reasoning</td>
<td>College Rubric</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Program-Specific Rubric</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GEA</td>
<td></td>
</tr>
<tr>
<td>Critical Thinking</td>
<td>College Rubric</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Program-Specific Rubric</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GEA</td>
<td></td>
</tr>
</tbody>
</table>

**General Education Competencies Results:**

This section presents the rubric general education competencies results of all those measurement tools identified above (in the second column). Again, it is suggested that this data be presented in table format. Multiple measures are still required to adequately measure whether or not the general education competencies have been met. The same Mesalands Community College created rubric can be used as the measurement tool each time the specific competency is evaluated (or you can modify the existing College rubric for your program as well as use the result from the GEA) (remember triangulation).

*Each measurement tool results should have a very short introductory section. The following is an example that you may want to consider:*

**General Education Competency:** Communication  
**Measurement Tool:** College Rubric  
**Goal Results:** 90% “Proficient” or “Excellent”

<table>
<thead>
<tr>
<th>General Education Competency</th>
<th>5 Excellent</th>
<th>4 Proficient</th>
<th>3 Acceptable</th>
<th>2 Inadequate</th>
<th>1 Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present ideas orally according to standard usage.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides an appropriate introduction and conclusion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides main points that are documented, developed, clear and focused</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides appropriate handouts and audio-visual aids</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaks clearly and understandably using standard, edited English</td>
<td>Presents ideas in writing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides content that is clearly focused and supported by the writer’s understanding of the topic</td>
<td>Uses appropriate grammar, syntax, usage, punctuation, and spelling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logically organizes and develops ideas in writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Demonstrates application of information technology.**

| Demonstrates basic computer and operating system skills | Performs core application tasks within computer software packages, such as Word, PowerPoint, and Excel | Uses a search engine to access, navigate, and evaluate information on the Internet |

**General Education Competency:** [Quantitative and Scientific Reasoning Measurement Tool: Program Specific Rubric]

**Goal Results:** 70% “Proficient” or “Excellent”

<table>
<thead>
<tr>
<th>General Education Competency</th>
<th>5 Excellent</th>
<th>4 Proficient</th>
<th>3 Acceptable</th>
<th>2 Inadequate</th>
<th>1 Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify relevant data by; a. extracting appropriate data from a problem containing extraneous data and/or b. identifying appropriate data in a word problem</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Demonstrates mathematical principles.
Select or develop representations appropriate to the problem which describe the data by;
   a. arranging the data into a table or spreadsheet and/or
   b. creating pictorial representations (bar graphs, or pie charts, or rectangular coordinate graphs, etc.) with or without technological assistance, and/or
   c. selecting or setting up an equation

Obtain and describe results by:
   a. obtaining correct mathematical results, with or without technological assistance, and
   b. ascribing correct units and measures to results which could include writing an appropriate sentence interpreting the result

Draw inferences from data by:
   a. describing a trend indicated in a chart or graph, and making predictions based on that trend, and/or
   b. describing the important features of data presented in a table or spreadsheet, and making predictions based on that trend, and/or
   c. describing the important features of an equation or formula, and making predictions based on those features, and/or
   d. drawing qualitative conclusions about the original situation based on the quantitative results that were obtained

Demonstrates scientific reasoning.

Separation of observations (data) and interpretations
Reasoning supported by using a variety of evidence

Interpretation and analysis of results

Distinguishes well supported from poorly supported scientific claims

<table>
<thead>
<tr>
<th>Reasoning supported by using a variety of evidence</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpretation and analysis of results</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distinguishes well supported from poorly supported scientific claims</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Apply scientific methods to the inquiry process.

Problem is recognized and investigative question is formulated

Reasonable, testable hypothesis is presented

Prediction is formulated as logical consequence of the hypothesis

Formulation of a conclusion

<table>
<thead>
<tr>
<th>Apply scientific methods to the inquiry process</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem is recognized and investigative question is formulated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reasonable, testable hypothesis is presented</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prediction is formulated as logical consequence of the hypothesis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formulation of a conclusion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

General Education Competency: Critical Thinking

Measurement Tool: GEA

Goal Results: 80% “Proficient” or “Excellent”

<table>
<thead>
<tr>
<th>General Education Competency</th>
<th>Excellent</th>
<th>Proficient</th>
<th>Acceptable</th>
<th>Inadequate</th>
<th>Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education Competency</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Read and analyze complex ideas.

- Analyzes and questions data validity
- Does not allow bias to affect results
- Interpretation and analysis of results
- Distinguishes well supported from poorly supported scientific claims

<table>
<thead>
<tr>
<th>General Education Competency</th>
<th>5 Excellent</th>
<th>4 Proficient</th>
<th>3 Acceptable</th>
<th>2 Inadequate</th>
<th>1 Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read and analyze complex ideas</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Locate, evaluate and apply research information.

- Develops and evaluates conclusions from research
- Develops and evaluates logical arguments within research
- Comprehends and applies research data
- Locates and applies research

<table>
<thead>
<tr>
<th>General Education Competency</th>
<th>5 Excellent</th>
<th>4 Proficient</th>
<th>3 Acceptable</th>
<th>2 Inadequate</th>
<th>1 Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locate, evaluate and apply research information</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Evaluate and present well-reasoned arguments.

<table>
<thead>
<tr>
<th>Provides strong arguments</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifies and presents issues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conclusions justified by arguments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluates and utilizes information</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PDSA CYCLE RESULTS  
(2007-2008)

Based on previous year. The following analyses are of both program objectives and general education competencies.

Analysis

Problem Area: Using hard data, this is where the lead director identifies where a particular general education, program, or course objective was not successfully accomplished.

Goal: Specifically identify quantitatively the goal improvement over the course of the next PDSA cycle.

Action Plan: Indicate what specific changes will be made in the classroom to address the identified problem area and accomplish the stated goal.

Results: State how successful the implementation of the action plan was at addressing the problem area and accomplishing the stated goal.

PDSA CYCLE GOALS  
(2008-2009)

Based on this year

Analysis

Problem Area: Using hard data, this is where the lead director identifies where a particular general education, program, or course objective was not successfully accomplished.

Goal: Specifically identify quantitatively the goal improvement over the course of the next PDSA cycle.

Action Plan: Indicate what specific changes will be made in the classroom to address the identified problem area and accomplish the stated goal.

Results: This area would be left blank since the action plan identified above will be implemented during the future semester(s).

Program Objective/Competency Rubrics:

General Education Competency Rubrics: (if modified from MCC created rubric)