AA DEGREE ASSESSMENT AT
WINDWARD COMMUNITY COLLEGE:
SOME CONSIDERATIONS AND RECOMMENDATIONS

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It is not enough to make students feel good about the environment on the campus or the services they receive. It is not enough to impress students with the dazzling performance of great lecturers. It is not enough to provide all the latest in information technology. If we cannot document expanded or improved learning—however defined and however measured—we cannot say with any assurance that learning has occurred. (O’Banion, 1999*; emphasis added)
INTRODUCTION

It is clear that the time has come to begin planning the systematic and integrated assessment of all elements of WCC, and particularly AA Degree student learning. By assessment in this report we mean measuring AA Degree student learning to see what we are doing well and what we need to improve. The need for this kind of assessment of higher education has been recognized in most of the U.S. for a number of years, and many colleges and universities have implemented extensive assessment programs. Also, the current guidelines for our Accreditation Self-Study make it very clear that WCC must have systematic and integrated assessment of its activities; several assessment-related recommendations are included in the WCC Self-Study (see Standards 3 and 4). And assessment just makes sense. The overall goal of the College—the reason for its existence—is learning. Without a comprehensive and effective assessment process, we cannot know where our strengths and weaknesses are in regard to learning. And without knowing our weaknesses, we don’t know where to invest our resources to improve learning.

The planning and implementation of assessment must involve all those who are affected by it, which is just about everyone at the College: administration, faculty and staff, and students. Therefore, we are not, in this project, planning WCC’s assessment program. Instead, we are looking at what is involved in assessment; we will discuss many of the important issues in assessment, and make some recommendations for the planning process. We will focus on the AA Degree requirements because the vast majority of WCC’s resources are devoted to Liberal Arts and AA Degree transfer students, and because so little has been done to assess learning outcomes in these areas.

We discuss the following areas of AA Degree assessment in this report:

- The College’s commitment to assessment, and organizing the effort and providing resources for it.
- Motivating faculty and students to participate in assessment.
- Developing goals and outcomes.
- Assessment of outcomes: measurable outcome statements, criteria, and methods of measurement.
- Implementing assessment.
- Useful resources for assessment.

INSTITUTIONAL COMMITMENT, ORGANIZATION, AND RESOURCES

COMMITMENT: The assessment of WCC’s AA Degree, if it is to be honest and effective, must begin with the commitment of the College to do the assessment and to do it well. According to Palomba and Banta (1999), “... an institution’s genuine commitment to assessment is a clear public statement of its
desire to offer quality programs and improve student learning . . .” (p. 18). The Provost and the Dean of Instruction must lead the way, providing rationale, direction, support and incentives. Other leaders—Dean of Students, Assistant Dean, Department Chairs, Faculty Senate Chairs, and Student Government Leaders—must buy into the assessment process; they can, in turn, help to recruit those they lead into the effort. The organization of the assessment effort and the provision of resources for it must reflect this commitment. And the College’s commitment must include positive consequences for those who develop and implement the assessment, help for areas not meeting outcome standards, and recognition and continued support for areas successfully meeting their outcome standards.

Assessment will be competing with a number of other priority issues at WCC. Since the importance of and trend toward assessment has been well known in the UH Community College System for quite a few years, what will lead to this commitment for assessment? Perhaps it will happen only with an external mandate.

ORGANIZATION: Since those who will be participating in the assessment process should be involved in organizing it (through their representative groups if appropriate), we can offer only a few general recommendations here:

1. Almost certainly, an Assessment Coordinator and an Assessment Committee (with representatives from all AA Degree areas) will be needed to oversee the process. The Committee should develop an assessment plan, which should be reviewed and approved by the Faculty Senate.
2. Training should be provided to faculty and staff so that they will be able to undertake the various assessment activities.
3. Faculty in the general education area to be assessed should develop goals and outcomes, review courses to determine if they cover the goals and outcomes, select assessment criteria and methods, and perhaps, do the assessment. It is important that students be given the opportunity to participate in this stage.
4. Recommendations by area faculty should be reviewed by the Assessment Committee.
5. Those who lead the assessment effort, both overall and for each general education area, should receive assigned time for and acknowledgment of their efforts.
6. There should be provisions for calling in outside experts, both within and outside the UH System.
7. Planning and implementation of assessment should take into account the additional workload demands they make on faculty and staff.
8. Considerable thought should be given to where to start assessment. Outcomes will be far too numerous to do all at once. It would be wise to start in one or a few areas first. One possibility would be to start with critical thinking. Every faculty member, every student, every course, and every AA Degree requirement deals with critical thinking, yet it is not now a requirement. This may be a less threatening area to begin the assessment. However, it may be harder to get a handle on it, and no one may want to take responsibility for it. So another possibility is to start with areas in which little work needs to be done on goals and outcomes; oral and written communication is one such area.

BUDGET AND STAFFING: Money will be needed for assigned time for faculty assessment leaders, for materials, for faculty and staff development perhaps including expert support from outside the UH System, for travel for the Assessment Coordinator to visit a community college with an effective assessment system, and perhaps for standardized exams and other implementation costs.
The thing that will best demonstrate the college’s commitment to assessment is its willingness to provide assigned time for staffing. To be successful, assessment must be primarily faculty created and driven. Assigned time is a statement to all members of the college that this is indeed a high priority activity for the college. It can only be accomplished effectively if faculty are reassigned from some of their primary commitments—teaching, etc. If faculty are forced to choose between quality teaching and what may be perceived as just another co-curricular activity, both will suffer.

When assessment works well, (e.g., Mohave Community College and Northern Arizona Community College), the institution is revitalized—morale and commitment rise in all elements of the college. In addition to faculty, staff are part of the assessment process, and see the improvements that arise from their efforts. However, although the early years of assessment are the most expensive and time consuming, significant results may not be seen until after a couple of years.

Unlike other college wide planning such as self study and the EDP, where criteria for evaluation are set by persons and agencies either external to the college or derived from its day by day operations, assessment is controlled by the users who build in their own positive feedback loops.

Based on the national experience of colleges, total start-up costs for the first year for personnel, supplies, and clerical support will be from one to two percent of the institution’s annual budget (about $59,000 to $118,000 for WCC).

The tasks are:

1. Develop goal and outcome statements for some AA Degree area requirements possibly including critical thinking for the catalog.
2. Review courses for consistency with goals and outcomes and modify as needed.
3. Provide appropriate assigned time for faculty to accomplish 1 and 2 and to implement outcomes assessment.

The following are the recommendations for minimal staffing:

1. Assessment Coordinator at half-time appointed from the faculty.
2. Administrative support consisting of the Assistant Dean and the Institutional Researcher at 10% time.
3. Clerical support at one fourth time and designated for assessment duties.
4. An Assessment Committee made up of the Assessment Coordinator; six general education area faculty representatives who will be given one credit assigned time; the Student Body President who should receive a stipend; and the Assistant Dean, Institutional Researcher, and the clerical support person, all of whom will serve ex officio.
5. Two faculty, who lead their area in developing goals and outcomes, reviewing their area courses, selecting assessment criteria and methods, and perhaps completing initial assessment, should receive three credits reassigned time. These persons may or may not be a member of the assessment committee.

It is anticipated that this full cycle of assessment will be accomplished in two of our general education areas.
MOTIVATING FACULTY AND STUDENTS TO PARTICIPATE IN ASSESSMENT

FACULTY: Well, there’s the carrot and the stick. However, the use or threat of negative sanctions will probably be counterproductive except for an external threat or demand related to WCC undertaking assessment (e.g., from an accreditation team). This could certainly be a general motivating factor for faculty and others to “buy into” and participate in assessment. But generally, positive incentives and expectations should be the basis of faculty participation in assessment.

Palomba and Banta (1999) discuss “… three R’s of faculty involvement: responsibility, resources, and rewards, [which, if] used wisely, … will help overcome another R of assessment, faculty resistance” (pp. 53 & 54). Resistance is a common problem, and should be anticipated. Some objections frequently raised by faculty about assessment are:

- Faculty may see the expenditure of time and money on assessment as reducing their ability to teach effectively and carry out their other duties.
- Faculty may feel they are teaching well, and students are learning, based on student grades and course completion rates. Thus they may see assessment is needed only to satisfy outsiders.
- Faculty may feel threatened by assessment. They may feel that it will lead to a loss of academic freedom, or that they will be judged by new standards which they may not be meeting.
- Faculty may feel that the behavioral approach to assessment, and especially quantification, won’t work with the most important learning experiences.

There is substance in all of these objections; they are legitimate concerns and should be addressed. Proper use of responsibility, resources, and rewards will take care of some of them. It will be very helpful if faculty understand that assessment is a real commitment of the College and that they themselves will be in control of it for the most part. Also, it will help if it can be demonstrated to faculty that grades and completion rates are usually inadequate measures of how well students have met specific AA Degree outcomes (see Polk, 1998a, p. 2). And it is also important that faculty realize they are not being evaluated personally, and that assessment results will not be used in personnel decisions.

Responsibility. Faculty are more likely to buy into assessment if they see it largely under their own control (with, of course, input from other interested parties such as administration and students). Faculty will be developing goals, outcomes, and measurable outcome statements; selecting assessment methods; implementing much of the assessment; analyzing and interpreting results; and making recommendations for and undertaking changes to improve learning. However, with control comes obligation—it would certainly be reasonable for department/area faculty to expect participation by all relevant faculty in their assessment activities. Also, what and how faculty teach may be somewhat constrained once goals and outcomes, methods of assessment, and so on are selected.

Resources. Faculty must be trained to do the various activities of assessment. Ways to prepare faculty to do assessment include workshops; written and internet resources; communication within WCC and the Community College System about what others are doing; calling in outside experts when needed; and travel for faculty to observe successful programs elsewhere. Also, resources include adequate financial support (discussed earlier), provision of secretarial services, and making technical services (computer, test design, statistics, etc.) available when needed.
Rewards. Rewards such as assigned time for assessment leaders, summer stipends for working on assessment projects, and recognition of efforts can all be powerful motivators.

STUDENTS. With the exception of required class activities, students may have little incentive to participate in assessment activities. Polk (1998a, pp. 8 & 9) and ACT’s Motivating Students (1998) list several techniques for “motivating participation and good effort by students.” Some other possibilities are:

- Giving students the opportunity to participate in assessment planning and implementation where possible. This will help make assessment compatible with and relevant to students, and may give them some feeling of “ownership” of it.
- Informing students about the importance and goals of assessment in the Catalog and other sources, and any non-course-based mandatory assessment activities.
- Informing students of outcomes, methods of assessment and criteria of scoring, and how results will be used.
- Assuring students that assessment information is confidential as far as specific names and results go, and that results will have no effect on grades, etc. (except for any class activities used for assessment).
- Emphasizing that the participation of students now will lead to better courses and programs later.

Required class activities which have been accepted for AA degree outcomes assessment are another matter. Student acceptance and participation should be at a high level, as for other class requirements, as long as the activities are relevant to the course.

GOALS AND OUTCOMES

Goals and outcomes are both involved in assessing the AA Degree. Goals are broad statements about what students should get out of the general education requirements of the AA Degree. Although not measurable themselves, in comparison to outcomes they are easier to get agreement on and more comprehensible to the average person. Clear and consistent goals are a good foundation for developing and justifying outcomes.

The WCC Catalog includes the general education course requirements for the AA Degree, and some statements about the goals of these requirements. However, these statements are often vague and not consistent with other sources of general education expectations (the Competencies, Skills, and Accreditation Standards; see below).

The expectation is that students passing the AA Degree courses will acquire particular knowledge, skills and attitudes, which, in turn, should have the potential of altering students’ behaviors in desirable ways. These new behaviors we will take to be the AA Degree outcomes. Outcomes, because they are observable, are necessary for the assessment of student learning. The ACCJC Accreditation Standards (the Accreditation Standards) states that the “. . . institution identifies and makes public expected learning outcomes for its degree and certificate programs” (Accreditation Standard 4.B.3). Goals and outcomes, once they are developed, should be included in the Catalog.

WCC has not developed statements about the AA Degree outcomes. WCC has, however, made commitments to incorporate the Associate in Arts Student Degree Level Competencies (Competencies,
1990), and the General Education Academic Skills Standards (Skills, 1997) into the AA Degree. These Competencies and Skills are much more specific statements which are, usually, either outcomes (behaviors) or a reasonable starting point for developing outcomes. There is considerable overlap, and a number of inconsistencies, between the Catalog, the Competencies, and the Skills. In addition to these potential sources of goals and outcomes, there are the Accreditation Standards 4.B.4, 4.B.5, 4.C.3, and 4.C.4 (from the ACCJC Handbook of Accreditation and Policy Manual, 1996), to which WCC will ultimately be held accountable. Most of what is covered by the Accreditation Standards is included in the Catalog, Skills, and Competencies. However, there are several areas mentioned in Accreditation Standard 4:C.3 which are not specifically included in the other sources: “The general education program provides the opportunity for students to develop the skills, information technology facility, affective and creative capabilities, social attitudes, and an appreciation for cultural diversity that will make them effective learners and citizens” (emphasis added).

Following are some observations on integrating these sources and using them to develop outcome statements* (headings, except for the last one, are from the Catalog):

WRITTEN AND ORAL COMMUNICATIONS: These areas are included in all three sources. The goal statement in the Catalog is clear: to “provide for the development of clear and effective written and oral communication skills.” Like the Catalog, the Competencies deals with oral and written communication together, while the Skills separates them. Although the Competencies and Skills statements are often similar, we believe the separation in the Skills provides the best basis for developing outcome statements.

MATHEMATICAL OR LOGICAL THINKING: This area is a mess! The Catalog provides a choice; the Competencies combines them; and the Skills separates quantitative reasoning (the same as mathematical thinking?) from critical thinking (probably broader in scope than logical reasoning). Accreditation Standards are very similar to the Skills. To some degree, these inconsistencies are due to unclear and/or different goals. Is the goal just “clarity of thought and expression” (Catalog), or does it include “the ability to manipulate symbols and apply abstract solutions to resolve tangible problems” (Competencies)? The first step is for WCC to come up with clear goal statements; this may require separating the two areas.

WORLD CIVILIZATIONS: The Catalog mentions two goals: “responsible citizenship,” and “to introduce students to the political, social, economic, and cultural development of the world’s major civilizations.” How citizenship fits in is not clear; it is not specifically included in the Competencies. The goal should be clarified. The Competencies will provide a useful basis for developing outcome statements.

ARTS AND HUMANITIES: This area is broad and diverse, which will make it difficult to develop clear goal and outcome statements. The goals in the Catalog are vague: “to gain an appreciation of history and achievements,” and to “enable the student to approach future studies of a more specific character with a broadened perspective.” Goals need to be clarified. Many of the Competencies statements are not behaviors, so developing outcome statements from them will be more difficult than in some other areas.

NATURAL SCIENCE: The Catalog goals are clear, and the Competencies will provide a useful basis for developing outcome statements.

SOCIAL SCIENCE: The goals in the Catalog could use some clarification. The Competencies are rather broad, so developing outcome statements will be more difficult than in some other areas.
NOT INCLUDED IN THE CATALOG: The Catalog does not include the Skills of information retrieval and technology, or, specifically, critical thinking. Critical thinking should be a part of every course and requirement. It should be assessed, and the Skills is a good basis for developing outcome statements. At some point, consideration must be given to how well students have developed affective and creative capabilities, social attitudes, and an appreciation of cultural diversity as mentioned in Accreditation Standard 4.C.3.

Once goals and outcomes have been developed, department/area faculty can determine the extent to which their courses focus on them. It is likely that some courses will not adequately reflect the area’s goals and outcomes; it would be appropriate at this time to begin modifications of these courses. Furthermore, the faculty should make certain that students completing any combination of the area requirements receive the appropriate exposure to all the outcomes of the area.

RECOMMENDATIONS

1. Clarify goal statements in the Catalog where necessary. New and/or revised goals should be submitted to the Faculty Senate for approval.

2. Develop outcome statements initially for some AA Degree requirements, and for critical thinking, and include them in the Catalog.

3. Review courses for consistency with goals and outcomes, and make modifications where needed.

4. Provide incentives and expert support for faculty to do 1 and 2.

ASSESSMENT OF OUTCOMES

“. . . measurement is the key to scientific understanding. To paraphrase Lord Kelvin, if you can’t measure it, you don’t know what you’re talking about. No profession will advance if its theories and practices are based on concepts that are unmeasurable or can only be measured so imprecisely that little faith can be placed in the outcome. For without good measurement there is no way to test one hypothesis versus another, and there is no way of determining if a new practice actually works as well as or better than the existing practice.”

DEVELOPING MEASURABLE OUTCOME STATEMENTS. This is one of the most difficult—and important—steps of assessment.

Before outcomes can be assessed, they must be specified in an observable or measurable way. Measurable outcome statements should include each of the following:

1. **the behavior to be measured.** This is the outcome, and it should be stated specifically enough so that valid and reliable assessment of it can be done. For example, the outcome “The student will demonstrate critical thinking.” is too broad in and of itself to measure meaningfully (by specifying the method of assessment, however, it could be okay).
breaking it down into component behaviors, however, it can become measurable. For example: “Identify and state problems, issues, arguments and questions contained in a body of knowledge.” (critical thinking skill #1, from the Skills).

2. **the conditions under which the behavior will be measured.** This includes the method of assessment (see below), how and when the method of assessment will be administered, and the criteria of evaluation if appropriate. With certain outcomes, the task in #1 could be simplified by specifying the method of assessment used to measure it. See the example below.

3. **the standard of achievement.** This is the minimum level of the behavior that will be accepted as meeting the expectations for AA Degree students. (Selecting these standards might best be postponed until after pilot testing and establishing baselines.) Most simply, it could be the minimum exam score. But it could be much more complicated—see the example below. Since it is unlikely that all students will meet the standard of achievement, another standard is needed: the minimum percent of students meeting the standard of achievement. Perhaps it would be easiest if all areas of the College agree on one standard for all outcomes; for example, “at least 80% of students assessed will achieve at the minimum level or above.” This standard could become a simple way to measure the degree to which WCC is doing its job in regard to AA Degree student learning.

We will use critical thinking to exemplify a measurable outcome statement. If a measuring instrument is available which adequately covers some or all of the outcomes in an area, developing measurable outcome statements can be relatively easy. ACT makes a Critical Thinking Test; let’s assume that it covers the critical thinking outcomes (to be derived from the Skills) reasonably well. Then a college might select this measurable outcome statement: *Pre-graduating students will demonstrate their critical thinking skills by taking the ACT Critical Thinking Test in a formal testing situation. At least 80% of the students will achieve a score of 75% or higher.* However, a college might prefer to use a written assignment which students complete as part of AA Degree courses in the semester before the students graduate. For example, “The pre-graduating student will demonstrate the critical thinking skills (listed separately) on a written, in-class assignment without references in a course with critical thinking as an objective. The student will have 45 minutes to complete the assignment. The student’s performance will be evaluated using the criteria* (listed separately) on a 4-point scale by at least 2 trained faculty. At least 80% of students will achieve an average composite score of 3.8 or higher.”

**CRITERIA FOR SELECTING METHODS OF ASSESSMENT.** In selecting a test or other method of assessment, there are several criteria which should be considered:

- **Validity:** How well does the method measure what it is supposed to measure? Low validity measures are worthless. And **reliability:** To what extent does the method give the same results at different times? Low reliability measures have low validity. These are complex issues; expert help may be needed. Don’t expect perfect measures.
- **Workload:** How time consuming is it to develop, administer, and score this method?
- **Cost:** Does the method require additional expenditures for purchase, administration, and/or scoring?
- **Ease of Scoring, and Interpreting and Communicating Results:** To what extent does the method involve complex and/or subjective scoring criteria? Does it give quantitative as opposed to qualitative results? Can the results be summed or a “holistic” score be produced?
- **Student Acceptability:** Will students voluntarily agree to be measured by this method? Or
can it be used in-class, where students don’t have a choice?

These criteria are used below to consider pros and cons of some common methods of assessment. A matrix may be helpful to compare different methods in terms of relevant criteria.

**SOME COMMONLY USED METHODS OF ASSESSMENT.** Many methods have been used for general education assessment; Polk (1998a) lists a variety of them. Some of the most frequently used methods, and their advantages and disadvantages, follow. Different methods can of course be used in different areas; and the use of multiple methods in an area, if consistent results are produced, provides the most convincing evidence.

**Nationally standardized objective tests** (see Polk 1998c for a comparison of them).

**ADVANTAGES**
- Many students can be assessed in a short time.
- There is no test preparation time.
- Little or no time is needed for scoring and analysis.
- They can be used to measure knowledge in most general education areas at one time.
- They are readily available.
- Validity (as defined by test makers) and reliability are high.
- Norms of various sorts for comparison purposes are available.
- They are very useful for pre/post testing, and for monitoring changes from year to year (e.g., from curriculum and instructional changes).

**DISADVANTAGES**
- Selection of the particular test to use can be time consuming.
- They may not be valid for specific outcomes at WCC.
- They are expensive to purchase and commercially score.
- Typically, they are poor at measuring higher levels of thinking.
- With their use, faculty may tend to “teach to the test.”
- Generally they are used out of class with student volunteers, so it is difficult to get a representative sample and best student effort.
- They generate high anxiety among students.

**WCC developed objective tests.**

**ADVANTAGES**
- They focus specifically on WCC’s outcomes.
- The monetary costs to develop and score them are low.
- Their use may lead to a high level of faculty involvement in assessment.
- They are easily modified if the curriculum changes.
- They can be developed for in-class use.
- As with standardized tests, they are useful for measuring changes over time.
- With computer technology, little time would be needed for scoring and analysis.

**DISADVANTAGES**
- Faculty time costs to develop them are high.
Validity and reliability are problematic. Only local norms could be developed. As with standardized tests, they would probably be poor at measuring higher levels of thinking, and faculty would likely teach to them.

Oral exams and structured interviews.

**ADVANTAGES**
- They provide the opportunity to explore and clarify student responses to get an in-depth idea of student learning.

**DISADVANTAGES**
- Two or more faculty are needed for each exam, so their use is time consuming.
- Scoring criteria and methods would have to be developed carefully; faculty training in their use is needed.
- Reliability would nevertheless be questionable.

Performance measures. Depending on definition, these could include a wide variety of measures such as observing students using skills in a task, observing products of student work (e.g., portfolios, which are described separately, and art work), essay exams, etc. Here the emphasis is on using skills.

**ADVANTAGES**
- They are particularly useful for assessing skills (as opposed to knowledge).
- It can be easy and natural to provide assessment feedback to students, who can directly benefit from it.
- Students tend to be more highly motivated to participate than in some other measures.
- They can help to integrate teaching and assessment in a useful way.

**DISADVANTAGES**
- Their use can be labor intensive. Much time is needed for preparing for assessment, developing criteria, training faculty evaluators, and interpretation of results.
- It may be difficult to communicate results to outsiders.
- Is performance on one task generalizable? Perhaps not, which raises questions of validity and fairness.

Portfolio assessment. Assessment is done on accumulated student work which was produced in or for classes.

**ADVANTAGES**
- Portfolios provide information over time, so improvement can be observed.
- Their use encourages student responsibility for learning and participation in assessment; students can include self-evaluations.
- They are likely to reflect the best effort by students.
- They could in many cases be stored electronically.

**DISADVANTAGES**
Much time may be needed for developing scoring criteria and training faculty to use them. Still, reliability will be questionable. Interpreting, summarizing and communicating results may be difficult.

Classroom tests and assignments. Besides tests they include papers, projects, labs, and so on. They could be activities currently being used, modifications of them, and/or new activities developed specifically for assessment. For example, outcomes assessment questions could be embedded in existing exams.

ADVANTAGES
- They closely tie faculty to assessment, so faculty buy-in is likely to be high.
- They can serve a dual purpose: student grading and outcomes assessment.
- Their use avoids the problems of student volunteers. Almost all of the selected student group can be assessed, and their effort would usually be good.

DISADVANTAGES
- Faculty in an area must agree on the activities to use, probably requiring modification of some courses to incorporate them.
- For outcomes assessment, at least two faculty should evaluate each activity, so extra faculty time is needed.
- For papers and projects, considerable time would be needed to develop scoring criteria, and to train faculty to use them for more reliable results.

TEN STEPS TO IMPLEMENT ASSESSMENT AT WCC

We have already covered many of the steps in implementing assessment, emphasizing the beginning ones. Below we summarize all the major steps in an order which makes sense to us. However, these steps and the whole process of assessment should be thought of as more or less tentative and flexible. Changes will certainly be necessary as we learn from experience. And different departments and areas may want to approach assessment in different ways—provision should be made for this diversity.

1. The College makes a commitment to undertake assessment, including setting aside resources for it.
2. The College organizes to provide leadership and coordination of assessment efforts. An assessment plan is developed including which area(s) to begin assessing. The Faculty Senate reviews the plan and approves it or makes recommendations for changes. The modified plan is reconsidered by the Faculty Senate and the process continues until agreement is reached.
3. Faculty and staff are trained to carry out various assessment activities.
4. Faculty revise and/or develop goals and outcomes in areas selected for assessment. Goals are submitted to the Faculty Senate for approval. Courses are analyzed for how well they meet these goals and outcomes, and course modifications are undertaken where needed.
5. Measurable outcome statements are developed by faculty, including selection of methods of assessment and criteria for scoring. This very crucial step will almost certainly require consultation with assessment experts.
6. The proposed assessment process is reviewed by the Assessment Committee. When it seems to be a reasonable process, it is pilot tested and revised as necessary.
7. Student learning is assessed. If students are being sampled (as opposed to measuring all or almost all eligible students), consideration must be given to doing the sampling in a scientifically meaningful
way; consultation with assessment experts will probably be necessary. Additional data is collected so significant student subpopulations can be identified.

8. Results are analyzed and interpreted, and recommendations are made for improving student learning.

All of this is shared within WCC and the Community College System.

9. Changes in courses and departments/areas are undertaken to improve student learning.

10. The assessment processes is revised based on the whole experience, and, after an appropriate interval, assessment is done again.

SOME USEFUL RESOURCES

Included below are the most useful resources we found, which are or will be readily available.


**Articles, etc.:**

“Motivating Students for Successful Outcomes Assessment,” 1998. American College Testing. *This includes many ideas on getting students to voluntarily participate in assessment.*


Polk, Barbara B., 1998a. “Assessing Student Learning Outcomes in the University of Hawaii Community Colleges,” University of Hawaii. *We referred to this article many times—a “must read” for assessment leaders.*

--------, 1998b. “Ideas! Ideas! Ideas! for Assessing Student Learning Outcomes!” University of Hawaii. *The ideas contained in this article are useful for stimulating our thinking by seeing what others have done.*

--------, 1998c. “Assessment Measures: A Critical Review of Nationally Available Tests,” University of Hawaii. *This article is helpful if nationally standardized tests are being considered.*

**Community College Assessment Advisor:** Barbara B. Polk, Ph.D., Office of the Chancellor for Community Colleges. *Barbara has done much research on assessment, visited mainland colleges to observe their assessment programs, and written several articles on assessment for the UH Community Colleges.*

**Web Site:** http://ericir.syr.edu/Eric/ *We found this to be by far the best web site for access to information on assessment. We used the following for our search:*

- Term 1: assessment
- Search by: descriptor
- Term 2: college
- Search by: key word
- Term 3: general education
- Search by: key word
- Search year: 1990 through: 2000

**WCC Web Site** (under construction): http://www.wcc.hawaii.edu/assess/default.htm

* Polk (1998a, pp. 4 & 5) lists four alternatives for “selecting and defining” outcomes. The first two alternatives are the Competencies and Skills respectively. The third alternative is to use the ACCJC Accreditation Standards, and the fourth is for colleges to develop their own outcomes. Given our commitments to use them, and their acceptance at a fairly high level in the UH System, we believe that the Competencies and Skills should be used at least as the starting point for developing outcome statements.


* See Polk 1998a and 1998b for examples of scoring criteria or “rubrics.”