Assessment as conducted at Finger Lakes Community College (FLCC) in Canandaigua (New York) has taken various forms and has been conducted under various names. This publication offers an overview of assessment at the college from a philosophical and historical perspective. In both general and specific terms, the efforts of the college to meet the challenges posed by the need for assessment are discussed in the following papers: (1) "Letter from FLCC President" (Daniel T. Hayes); (2) "Defining Assessment" (James O. Ortiz); (3) "Historical Perspective on Assessment" (Patricia A. Pietropaolo); (4) "Assessment Awareness at the Department Level" (Sandra Brown); (5) "Courting Assessment as an Agent of Change in the English 101 Curriculum" (Sandra K. Camillo); (6) "The Pyramid Model" (Frederick L. MacNamara); (7) "Beyond Advisory Boards to Educational Partnerships for Assessment" (Jeanne S. Fagan); (8) "Developing Evidence" (Marylou Boynton); and (9) "Gathering Institutional Data for Assessment" (Rebecca Burgess). (SLD)
ISSUES IN ASSESSMENT:

PUTTING THEORY INTO PRACTICE

Finger Lakes Community College
1993
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FORWARD

Assessment is a term not new to higher education nor to Finger Lakes Community College. Over the years, assessment has taken on various forms and euphemisms: goals and objectives, student skill assessment, classroom assessment, CATS, course assessment, program review, outcomes assessment—just to list a few. Faculty also are not strangers to assessment with many “natural” teaching techniques taking on new names over the years (e.g., classroom evaluation to CATS). The intent of this monograph is to offer an overview of assessment at Finger Lakes from a philosophical and historical perspective, as well as present information on current assessment strategies and future directions.

The Ortiz article offers a philosophical basis for assessment in higher education, recounts the history of assessment at Finger Lakes and offers recommendations for the future. Pietropaolo presents assessment in the framework of SUNY and an account of Finger Lakes’ response to SUNY. The Brown and Camillo articles deal with assessment at the department level. The first author relates successful attempts to implement assessment within a department while the second recounts the departmental issues assessment brought to the forefront. The competencies pyramids which are an outgrowth of the Assessment Committee are explained in the MacNamara article. Fagan points out the necessity for and advantages of integrating Advisory Boards into the assessment process. Boynton argues for the need for “evidence” beyond available standard tests that shows assessment as an active influence in our classrooms and as a positive method of measuring student growth. Finally, the Burgess’ article is the first part of research currently in progress which identifies information which is necessary to support assessment initiatives at the college.

These articles represent the various aspects of assessment at Finger Lakes. This monograph is, hopefully, the first in a series which will continually examine assessment efforts at the College and serve as a vehicle for communication.

Patricia A. Malinowski, Editor
Associate Professor, Developmental Studies
Dear Colleague,

Historically, colleges and universities have dealt with the issue of assessment primarily to evaluate student performance in determining grades, skills, and competencies. Increasingly, however, institutions of higher education are being called upon to conduct assessment of a more broader nature. This assessment effort involves attempts by the institution to study itself and to measure effectiveness in producing learning outcomes among students.

There is increasing pressure from both internal and external constituencies for colleges to examine thoroughly the issue of outcomes and institutional assessment. Externally, regional and programmatic accrediting groups are requiring that post-secondary institutions develop assessment plans. Additionally, State agencies are increasingly playing a role in demanding that institutions formalize assessment practices. The public-at-large continues to demand that educational institutions become more accountable; partly in response, institutions are assessing their effectiveness in meeting their missions. There is also the demand for institutional assessment as programs are reviewed and budget dollars become scarce. Each institution needs to make certain that the programs that it offers are indeed succeeding in producing the types of learning outcomes desired by the institution.

Viewed one way, assessment can be seen as a chore. It can be painful and, if misused, its results can divide and weaken an institution. Conversely, assessment can create an opportunity for the institution to develop, can generate opportunities for the institution to measure and document its overall effectiveness, and can enable educators themselves to learn how they can improve student learning.

Within the past two years, Finger Lakes Community College has made considerable strides in defining for itself the types of assessment approaches it wishes to use in the next decade. FLCC has been successful in exploring and identifying measures to be used in program review and has been able to identify through an Assessment Committee, processes and procedures that will lead to assessment of the effectiveness of academic and student support programs.

This compilation of essays describes in both general and specific terms efforts of the institution to meet the challenge posed by the demand for assessment. You will find the essays to be not only of value from a theoretical standpoint but also highly practical; moreover, the essays suggest ideas that can be easily replicated at other institutions.

The Faculty and Administration of Finger Lakes Community College are to be commended for their recent efforts on this important and timely topic. Particularly the work of the Assessment Committee of FLCC should be noted for its considerable efforts to bring assessment into the classroom in order to improve teaching and learning.

Daniel T. Hayes, Ph.D.
President

President
The mission of community colleges is to provide access to quality education. The premise is built on the idea that quality education is compatible with an open access policy. This view is based on the democratic values of our society that maintain that most people have the potential, given the opportunity, of determining their destiny and of being productive members of society. Quality education then is the means of actualizing these values.

A view that has gained popularity over the last several years maintains that access and quality are incompatible. This view proposes that colleges can only provide a quality education by limiting access through rigorous academic entrance criteria. Proponents of this view have recently suggested that the lower educational levels American students exhibit in comparison to other countries is in fact a direct result of the low entrance requirements set by colleges and that this in turn prevents secondary schools from improving their educational standards. Needless to say, this view leaves no room for the idea of quality education within the open access environment.

The college environment would be an easier place if we only had to teach students who had the necessary skills to be successful. But, community colleges are faced with a much more complex task, to develop a dynamic environment that addresses learning through a variety of ways that result in a quality education for all students. Community colleges, in maintaining an open access policy, must be creative in providing for quality education to a heterogeneous student population with a variety of skill levels. This opportunity must be confronted as an exciting challenge rather than a daunting task since it is this challenge that best defines the purpose of education in a community college.

The question of what constitutes quality education needs to be addressed not only to respond to those who question the basic mission of the community college, but also to validate our beliefs. We need to discuss the issue to ensure that access and quality are a real possibility and not just a well meaning philosophy that inadvertently deceives students and ourselves about the quality of education we provide at our college.

The purpose of this article is to examine how Finger Lakes Community College has attempted to address the issue of quality education within the context of the assessment movement in higher education and then offer some thoughts on what may be the next step for assessment at the college.
DEFINING ASSESSMENT

BACKGROUND

Assessment, in becoming a national movement, has redefined the historical dialogue that has taken place on the quality of education. Quality, meaning the degree of excellence of education, has always been a fundamental issue to higher education. The framework of the dialogue has changed overtime, but the basic premise of quality remains central to the discussion that has moved from a philosophical perspective, to a bottom line quantitative method, to a rational evaluation approach and finally to the assessment movement.

The philosophical approach has generally revolved around the themes of liberal arts versus vocational education, core versus general curriculum, humanistic versus science education. This approach is important in defining the broader value of education in society but provides no evidence as to the quality of that education at the institutional level or in the classroom. The discussion needs to be more specific if it is to have meaning at community colleges beyond setting the broad goals of these institutions.

The alternative bottom line quantitative approach is best exemplified by the old methods used by accreditation agencies. These agencies attempted to judge the quality of an educational institution in objective, scientific ways, which usually meant counting material things. They wanted to know the size of the library, the size of the collection of books stored therein, the number and credentials of faculty, and the accounting of equipment. The basic assumption of this approach was that these material things provided evidence of quality. This approach was found to be lacking in addressing the issue of quality and resulted in the accreditation agencies seeking new methods of evaluating institutions of higher education.

More recently higher education has attempted to address the issue of quality by using the rational evaluation method. This method borrowed heavily from the scientific method, but attempted to evaluate what occurred at a college from a problem-centered perspective. The method dealt with a limited number of variables, functioning under supposedly controlled conditions which allowed for predictability by removing the activity being studied from its origins and its surroundings. Evaluation attempted to be completely objective and in doing so, carried with it a flaw that prevented it from being effective - the attempt to impose the classical scientific method on a human activity. It attempted to quantify the teaching and the learning experiences, activities that are based on human relationships and are resistive to measurement.

The most recent effort to address the issue of quality is assessment. Assessment is similar to the evaluation method in that it is an attempt to know how things work; however, that is where the similarity ends. Assessment has become the method of focusing on the human interaction that is central to teaching and
learning, and recognizes that in appraising these activities it influences the quality of that interaction.

ASSessment

On the national level, assessment has gone through several phases to reach its current stage. It originally started as an attempt to examine quality by measuring the "value added" by an educational experience. This attempt to determine the academic skills of entering students and evaluate their skills at leaving college developed into two distinct levels, skill assessment and institutional assessment. These levels became the initial strategies used to determine the value of education and on which the idea of assessment was built. Skill assessment is the evaluation of academic skills of entering students as determined by tests, essays and professional opinions of faculty during the advisement process. In addition, as aggregate information, it is used to develop a profile of the current student body.

Institutional assessment is evaluation of college outcomes primarily based on quantitative data (e.g., retention statistics, alumni surveys) used to gain an overall view of what is occurring within the institution. It provides quantitative data over a period of time that may be used to determine how an institution is performing in relation to variables for which there is data.

Skill and institutional assessment is a move forward in attempting to address the issue of quality on an institutional level. For several colleges it provides the means of determining institutional effectiveness. Nevertheless, faculty have felt that skill and institutional assessment have certain inherent limitations that separate it from classroom teaching. They argue that even though the data acquired by skill and institutional assessment is critical for an overall understanding of a college and its relationship to the issue of quality, it is limited by the fact that generally the data derived from these processes are not relevant to the day to day classroom experience. Faculty appreciate the overall information, but feel they need a method that would directly assist them in the classroom by providing immediate feedback to their teaching.

To meet this need the "Assessment Forum" of the America Association of High Education encouraged development of classroom assessment methods. The model of classroom assessment exemplified by the work of Patricia Cross and Thomas Angelo is perhaps the best known attempt to consciously bring assessment activities into the classroom. It encompasses many of the well tried techniques of teaching. However, it presents a new format that seeks to make public what is expected of students, provides an immediate means of finding out what students are learning while using this feedback as a self-corrective process for teaching. This self-correcting feedback loop is the main characteristic of classroom assess-
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ment that helps form a relationship between faculty and students while involving students in their own education.

ASSESSMENT AT FLCC

In 1990, after studying the ideas developed by Patricia Cross and Tom Angelo around classroom assessment, and reviewing experiences of King's and Alverno Colleges, the FLCC Assessment Committee initiated the assessment effort at the college. It successfully sought to establish teaching and learning as the central focus of assessment activities, with the goals to improve the quality of teaching and learning, and to make it the focal point of college activities.

Central to the first goal of improving the quality of teaching and learning was the development of the "Eleven Learning Outcomes" which became the main feature of assessment at FLCC. This process clearly defined the particular skills students should have at graduation. The process is based on the understanding that in order to improve the quality of teaching and learning the faculty should attempt to delineate what should be learned by students, be clear about their expectations, and then assess this learning through a feedback process that makes students active participants in the teaching and learning process.

In initiating this goal, the Assessment Committee worked closely with the Faculty Association and the Administration in obtaining recognition and support for classroom assessment activities. This recognition heightened the sensitivity of the college community to assessment. A newly developed Teaching Center became critical in supporting faculty development as a cornerstone of assessment.

Classroom assessment as a faculty activity gained a momentum that has resulted in four distinct components centered on quality. First, it provided a new means of getting information for discussion on the process of teaching based on the class as a group rather than focusing on the experiences of a few individual students. This change substantially broadened the range of discussion on teaching and learning. Second, it introduced the notion that the student is more than an active participant; the student is an informant and sharer of the teaching process. It expanded the role of the student and, therefore, changed classroom teaching. Third, the use of public criteria changed the student into a self-learner who is able to assess his/her own progress. Fourth, the use of the class as a cooperative group encouraged students to learn to participate, share and teach. Assessment became integrated in the teaching process, making teaching and learning an exciting method of helping students reach the skills identified by the learning outcomes.

The second goal of making teaching and learning the focal point of college activities focused on revamping the program review process into a system that
DEFINING ASSESSMENT

would serve as a vehicle to support assessment activities. This effort quickly expanded into complementary activities that are now tied to supporting the theme of teaching and learning. Program review served as a focal point for faculty discussing program goals in relation to the mission of the college and the new Eleven Outcomes, reviewing and updating curriculum to bring them in line with the program goals, modifying courses to incorporate classroom assessment methods, and working on cross-curriculum projects in relation to the learning outcomes.

The initial program reviews contained recommendations that reflected the immediate impact of assessment on the college. Six institutional issues were gleaned from the program reviews that indicated the faculty felt strongly the college needed to address--institutional data, student preparation, retention, the exit essay, integration of learning outcomes, and adjunct faculty. The college, through its various committees, took on the task of studying these issues with the understanding of developing action plans by the end of the first year.

On another level the program reviews served as a process by which faculty could evaluate their programs and develop strategies for change. In this manner, program reviews became a means by which the faculty could enhance and broaden the scope of programs, particularly in conjunction with external advisory groups, and develop ideas and plans for new programs. Finally, program review has become a method of tying program development to the budget process.

INSTITUTIONAL EFFECTIVENESS

The college, through the assessment effort and the program review process, has provided the faculty with the a process for identifying program goals and objectives, a collegial method of program development, and a vehicle for seeking administrative support. In a larger context, assessment and program review help create an environment in which all components of the institution - faculty, staff, administration, and Trustees - are supportive of the continuous quality improvement effort of the college centered on teaching and learning. This environment provides the foundation for institutional effectiveness by connecting the work of the faculty through a problem-centered approach to the institutional mission.

Institutional effectiveness may be defined as how well the college fulfills its mission of providing quality education. In order to judge the degree to which the mission is being met, outcomes of all activities supporting teaching and learning need to be evaluated. Assessment and institutional effectiveness are interconnccted and sometimes difficult to differentiate; however, assessment may be considered a dynamic faculty driven force that strives for quality in teaching and
DEFINING ASSESSMENT

learning, and institutional effectiveness as the integration of skill, institutional and classroom assessment that provides information that allows the college to be aware of the quality of the education it provides. This connection between assessment and institutional effectiveness make the striving for quality a true college-wide concern that is focused on the continuous quality improvement of teaching and learning.

INSTITUTIONAL RENEWAL

Assessment and the activities that have become connected to it are changing the college by encouraging the faculty to move forward towards the unknown, carrying within it consequences that help formulate the overall reality of the college. In this context, assessment has become a catalyst for institutional change and renewal at FLCC.

Change is a disorienting experience invoking feelings of anxiety, frustration and a desire to retreat to the comfort of the familiar. Familiarity, no matter how distasteful it may be, has a certain security about it. It represents a beacon that gives us a frame of reference for our work. Changing that frame of reference is painful.

Usually we experience a period of mourning for the familiar which we may be giving up, followed by a feeling of loss and then, and only then, does the difficult process of renewal start. The difficult task of reevaluating our ideas and attitudes, of looking at our environment from a different perspective and of learning to do things differently involves much thought, introspection and effort. This change process is stimulated by assessment.

In placing teaching and learning at the center of college activities through such efforts as program review and institutional effectiveness, assessment eventually leads to a critical review of college beliefs, myths and policies that prompts a movement for institutional reform. This process provides a means for uncovering critical issues that effect teaching and learning, and leads to changes that both faculty and administrators must confront. Within this context, it quickly becomes evident that education has no single method but requires different strategies to change and move towards quality. As the college grows, assessment helps the college community experience the continuously evolving system of interdependent individuals and programs that is the basis for providing a quality educational experience to students.

The evolution of assessment from a teaching tool to a process for institutional change is unsettling for both faculty and administration. It is especially difficult in a college setting with its' conservative academic traditions, yet experiencing the connection between assessment, institutional effectiveness and organizational change is necessary if the college is to address the issue of quality education.
DEFINING ASSESSMENT

SUMMING UP

In an open access environment, assessment is a method that fosters the conscious development of quality education. The scholarly dialogue that assessment engenders by focusing on teaching and learning as the central activity of the college continuously changes and defines the meaning of education at a community college. This definition evolves out of a complex process that consists of several interconnected college activities derived from assessment. The FLCC experience suggests that there are at least four activities that serve as the cornerstones for establishing a continuous quality improvement community college environment.

The first activity is to improve the quality of teaching and learning by encouraging innovation in the classroom and other student related activities. Particular emphasis should be on making learning objectives clear and public, and getting feedback on student learning.

The second activity is to make teaching and learning the focus of college activities by developing a process for faculty to identify goals and objectives, a method of using the collegial style to achieve these goals and objectives, and a way to receive administrative support for their efforts.

The third activity is to connect assessment to the goal of institutional effectiveness by creating an environment in which all components of the institution - faculty, staff, administration, and Trustees - are supportive of the continuous quality improvement effort of the college. This may be done by connecting the work of the faculty through a problem centered approach to the college mission which would then be connected to a process that judges the effectiveness of the institution in meeting its' mission.

The last activity is to maintain an environment that tolerates and supports institutional change, thereby, encouraging a healthy and growing educational setting.

In concluding, assessment encourages the college community to constantly rethink its' goals, both at the classroom and college level, and the ways it achieves them. It provides a means by which a college may engage in a continuous dialogue that defines quality education. It makes the dialogue increasingly concrete by the development of common definitions (e.g., learning outcomes, classroom research) and provides evidence (e.g., skill assessment data, experiences from classroom assessment activities) that progressively adds to the depth of this scholarly discussion on the quality of education.

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HISTORICAL PERSPECTIVE ON ASSESSMENT
Patricia A. Pietropaolo

MULTI-CAMPUS UNIVERSITIES: SUNY

Newman (1987) indicates that multi-campus university systems were created to meet real needs. “They are intended to provide the means for thinking about how the whole of the higher education system is to serve the public, to resolve questions of mission among multiple university campuses and to set priorities among institutions” (p. 54-55). In New York State, it is the State University of New York that fulfills those responsibilities. The State University of New York, a multi-campus university, was established by combining 29 previously unrelated public institutions and three private institutions into what has grown into a system which has the largest student population of any university system in the world.

The State University of New York came into existence in 1948 under the auspices of Governor Thomas E. Dewey. It was created in response to the recommendations of a blue-ribbon commission, chaired by Owen D. Young. The Young Commission concluded that New York State was critically short of low-cost geographically accessible institutions of higher learning (SUNY 2000). “The founding of the State University brought together, for more effective coordination, colleges already receiving state support, while encouraging the development of a network of locally sponsored community colleges” (SUNY, A University Viewbook, p.i). The State University of New York is governed by a Board of Trustees, consisting of members who are appointed for 10 year terms by the Governor. The Board of Trustees determines policy for the 34 state-operated campuses. The authority of the Board of Trustees was broadened to include greater control over university personnel, purchasing, contracting and budget activities (Newman, 1987), based on recommendations emanating from the report of the Independent Commission on the Future of the State University, January 1985. The SUNY Board of Trustees has authority and responsibility for both budget and program review for the state funded colleges and university centers.
COMMUNITY COLLEGES IN THE SUNY SYSTEM

The SUNY Board of Trustees, in addition to management responsibilities for the senior colleges and universities within the public domain, also has coordinating responsibilities for the state's community colleges. The 29 community colleges within the SUNY system have local sponsorship and are governed by individual boards of trustees which are empowered with program and budget review responsibilities. All units within the SUNY system receive financial support from the state. While control over budget is direct for the state-operated campuses, the funding formula for community colleges is a more complex mix. The local sponsoring agencies for each community college share in the financing of each institution. SUNY's programmatic control through budget authority, therefore, is direct for state operated campuses but indirect for the community colleges. The SUNY Central Administration exerts programmatic control, through the power vested in the administrative staff by the SUNY Board of Trustees, but not total financial control over the 29 community colleges in the system. The coupling between SUNY Central Administration and the community colleges is not as tight as between SUNY and the state funded colleges and university centers.

SUNY BOARD OF TRUSTEES

Governing boards have authority over how individual campuses are governed. "Governing boards select the chief administrative officer of the campus, establish the operating budget, and plan for capital improvements" (Hines, 1988, p. 2). They also are involved with defining campus missions, approving admission standards, and determining tuition and fees. The Board of Trustees of the State University of New York, in reality, functions as a consolidated governing board for the state operated colleges and university centers.

The authority and responsibility given to the governing boards is vested in them so that the state can be assured of having educational programs available to its citizens and also to provide for an educated workforce which meets the economic development needs of the state. Along with insuring the availability of accessible programs for the state's population is the concomitant responsibility for providing quality programs. By designating authority for planning, budget, and program development and review to the governing board, the state assumes that the board accepts responsibility to provide the best education at the least expense to the taxpayer, for the residents of the state. Although recent emphasis has been on the most efficacious manner to handle the responsibility economically, the other side of the educational coin is surfacing. Are residents being provided with
a quality educational experience? Are graduates able to fill the workforce demands? Are graduates sufficiently skilled to perform satisfactorily in the jobs they acquire? Summed together this perspective is a question of accountability. The SUNY Board of Trustees has the authority as well as the concomitant responsibility to assure quality in the educational processes for public institutions within the state. One way the issue of quality is being addressed nationally is through initiation of assessment practices, either mandated and tied to finances or as policy innovations. The State University of New York is addressing the issue of quality education through the assessment processes which have been established on each of the 64 campuses.

ASSESSMENT

The term “assessment” has become a buzz word in the academic community. An impetus for outcomes assessment in postsecondary education has been generated by a combination of internal and external forces. Within academia, assessment of student progress has been suggested as a means of rectifying an apparent lack of quality control and at the same time a means of addressing problems in the undergraduate curriculum (Alexander & Stark, 1986). Concerns about the quality of a college education are also being expressed by the employers of college graduates.

The private sector, as the major employer of the product of colleges, desires more uniform high quality in the graduates it hires (Alexander & Stark, 1986). The concern expressed by the business and industry community is echoed by state legislators who are becoming increasingly concerned with the return the states are getting from their investments in higher education.

Some institutions are combining assessment with planning and, thereby, allowing assessment to permeate all of the academic functions. It then forms a common thread that unites classroom activities, academic programs, committees, faculty and staff, and students, and, thereby, provides a basis for institutional decision-making.

ASSESSMENT AT SUNY

The individual campuses comprising the State University of New York educational network exemplify stratified levels of assessment activities as well as levels of commitment to assessment. The concept of assessment has been championed by Provost Joseph C. Burke of SUNY and was presented as a challenge to the 64 campuses which comprise the system.

The systematic assessment of the quality of undergraduate education has
been a priority for the SUNY system for a number of years. In his December 12, 1988, letter to Presidents, Burke stated, “SUNY needs to move forward on academic assessment not because we are forced to by State mandate but because we want to as responsible academics.” His premise is that assessment has two complementary, not conflicting goals: the improvement of institutional performance and the demonstration of institutional effectiveness in undergraduate education. Burke further believes “If we achieve the primary goal of using assessment to improve our performance, then demonstrating our effectiveness becomes a doable task,” a concept that is compelling and that exemplifies the mission of SUNY.

In 1989, at the request of Provost Burke, each SUNY campus prepared a preliminary report on their current assessment activities. These reports indicated the measures and instruments already in place for evaluating student performance in the areas of:

- computation and communication skills;
- general education;
- academic majors; and
- student personal and social growth.

A second wave of reports was requested and received by SUNY Central in June of 1990. The reports contained the comprehensive five-year assessment plans developed by each campus. Although principles and guidelines for the development of assessment plans were distributed by SUNY Central to the campuses, emphasis was placed on the development of plans which were campus-based and tailored to the mission and goals of the individual units within the system and which addressed the needs of their present and prospective students. While SUNY Central acknowledges and respects the autonomy and multiplicity of its 64 campuses which include community colleges, specialized colleges, comprehensive colleges, colleges of technology, and university centers, at the same time it strives to coordinate a system approach to assessment and acknowledge good practice among its units.

The plans were reviewed and suggestions for improvement were sent to the campuses from the Provost and the SUNY-wide Assessment Committee. Annual reports requested from the campuses to ascertain the activities which have been generated as well as to determine the impact of the process on the campuses. Most of the SUNY campuses have succeeded in defining objectives and multiple measures for basic skills and general education (Burke, February, 1992). Overall, the smaller campuses have been more successful in developing and implementing their assessment plans.

“...SUNY is committed to quality education and is well on the way to having...
good assessment plans and practices on all of its campuses" (Burke, February, 1992). The tie between assessment on the campuses and practices of the SUNY Central Administration becomes evident in the new program review process and also in five-year reviews of existing programs. SUNY is looking for ties which connect the development of new programs on the campuses to the information they obtain through assessment activities. Courses included in new programs should reflect the outcomes expected of students who complete the program. Campuses also should include assessment data in five-year program review reports as support for the changes in curriculum which have been made or that are anticipated. The feedback mechanisms which are built into the assessment processes should inform practice.

**Assessment at Finger Lakes Community College**

In response to the 1989 request of Provost Burke, the College formed an ad-hoc Assessment Task Force to prepare a preliminary assessment report. The preliminary assessment report summarized the current practices at the College relative to assessment at three levels: course, program, and institution. The task force was replaced by a faculty/administrative committee that assumed responsibility for the preparation of a multi-year comprehensive plan which was submitted to SUNY Central June 1990.

The administrative response to the 1990 report prompted a change in the composition of the assessment committee. The 1990-91 assessment committee was designated as an ad-hoc committee consisting of eight members, four appointed by the faculty and four administrative appointees. The eight member committee accepted the charge of implementing recommendations from the 1990 committee. They developed an assessment strategy that supports the mission and the culture of the College.

The committee recommended that assessment be both mission and outcomes based, that it represent goals at all levels of the institution, that faculty responsible for implementing change be the primary operators for evaluating and interpreting data, and that the assessment system provide feedback for adjustment.

The outcomes of the 1990-91 assessment committee laid the foundation for and started the evolution of the institutional move from viewing assessment as an administrative tool for accountability to a focus on assessment as a means to improve teaching and learning within the institution. Eleven Learning Outcomes, which delineate the expectations of the Ten Convictions (which were developed in 1989 to define the college mission,) were designed as assessable characteristics of the College mission. They are the areas of competence which are outcomes of the educational experience for all our graduates. The institutional effectiveness
of FLCC is based on evidence of student learning outcomes. Student outcomes became the goal for measuring institutional effectiveness and a new program review process became the vehicle for change.

The new program review process separates administrative review of programs from the assessment process which is faculty and department based. The process allows departments to evaluate their practices, courses and programs relative to student outcomes and recommend change based on their findings without fear of administrative reprisal. Revised guidelines were approved by the faculty, the President and adopted by the Board of Trustees.

The 1990-91 assessment committee also developed recommendations for review of the student skill assessment process at the College and suggested that any modifications in the process be consistent with the College's philosophy of providing individualized options to students. The committee of eight provided the College with the boilerplate for assessing institutional effectiveness based on student learning outcomes and a clear focus toward teaching and learning.

The assessment committee grew in 1991-92 to ten members and became designated as a special committee of the Faculty Association. The 1991-92 assessment initiatives built on the foundation prepared in the previous year.

Workshops were offered to assist academic departments in processing the revised program evaluation guidelines. Faculty reviewed curriculum, developed goals and student learning outcomes for the eleven competencies. They indicated where in the program courses the competencies were being taught and measured. A base line was established for the programs and departments that underwent the revised process. At the same time, a sub-committee of the assessment committee developed the pyramid model. The pyramids represent levels of competency in each of the eleven learning outcomes. Each program will be able to indicate, using the pyramid model, what level of competency is expected of a student graduating in that program for each of the eleven learning outcomes. The standards for each level within each pyramid will be delineated by college faculty and staff during the 1992-93 academic year.

The other sub-committee of the 1991-92 assessment committee concentrated on reviewing skills assessment of entering students. The committee as a whole encouraged the acceptance and understanding of assessment at the college. The assessment movement evolved out of committee and into the college community.

Workshops were sponsored by the Teaching Center to enhance faculty development, to provide awareness of classroom assessment techniques, and to support the new focus on teaching and learning.

The revised program review process was highlighted at the monthly meetings of the Board of Trustees. Each month a member from a department that had completed a program review presented their results, comments and related activities to the Board.
Revision of the new course proposal format occurred. The Curriculum Committee adopted a revised syllabus format that requires the submission of student learning outcomes for each course and the expected learning competences which will addressed. Program proposal forms were revised in a similar manner.

The January professional workshop days included an introduction of Classroom Assessment Techniques to the professional staff by Thomas Angelo. The presentation spurred renewed activities related to classroom assessment. Some faculty undertook an informal application of some of Angelo’s techniques. Another more formal arrangement is taking place in 1992-93. The classroom assessment techniques project will enable eight faculty members to perform case studies of the impact of Classroom Assessment Techniques on their classes.

In response to the common concerns for lack of institutional data relating to academic programs by both departments undergoing the review process and the middle states internal and external reviews, a comprehensive inventory of existing institutional data and requested institutional and program data is being compiled.

Capstone courses are being developed to reinforce prior learning and the exploration of portfolio assessment of students is occurring. The scope and variety of initiatives and activities that have emanated from the assessment committee over the few years of its existence is overwhelming. The concern for maintaining communications and sharing information has been expressed.

The request for assessment which came from the Provost’s office in 1988 initiated what has grown into an avalanche. While the critical mass necessary for change took time to build, it became evident in 1990-91 and has been gaining momentum ever since. Assessment has permeated the institution and has become the underpinnings for decision making at all levels of the College. It is similar to a living organism which is growing, reproducing and spreading because it is being nurtured by the efforts of all constituents in the institution.

Patricia A. Pietropaolo, a recipient of the Chancellor’s Award for Excellence in Professional Service, is a Professor of Biology. She began teaching at the College in 1976 and has served as Chairperson of the Science/Technology Department since 1985.
REFERENCES


ASSESSMENT AWARENESS AT THE DEPARTMENT LEVEL

Sandra Brown

During 1990 and 1991, work was done by the Assessment Committee at Finger Lakes Community College defining assessment, and introducing the concept of assessment to the college community. During these years, the assessment movement and perception of the assessment concept was resisted by the Mathematics and Computing Sciences Department. Both incoming assessment and outgoing assessment were viewed as a bureaucratic nightmare. Unfortunately, we thought that assessment and standardized testing were equivalent terms. We felt then (and now) that one cannot measure mathematical skills with a known assessment tool— the standardized test. For this reason, the department gained a reputation as a department that generally opposed the whole “assessment movement.”

During the summer of 1991, the Administration at FLCC arranged to sponsor a number of workshops on assessment in higher education. The department chairs and assessment committee (of which I am a member) were invited to attend. The workshops provided a great deal of information about what other colleges and universities were doing in the area of assessment. I learned that assessment did not necessarily mean standardized testing. In fact, the trend in higher education seems to be moving away from testing to more innovative techniques.

Assessment is a very complicated concept, and needs to be addressed at three levels: the classroom, the program, and the college level. The department chairperson and myself were particularly impressed with what we learned about classroom assessment and classroom research. Assessment at this level translated simply to better teaching and learning. There is no administrative pressure, no standardized tests and measures in utilizing innovative classroom assessment techniques. Educating our department in classroom assessment techniques seemed like a non-threatening approach to spreading our new-found understanding of assessment. Concentrating at the lowest level (classroom) seemed to be the easiest way to start. How could we convince the department that improving teaching and student learning meant employing good assessment techniques? I realized my department could benefit a great deal by learning what I had that summer. Furthermore, we could all benefit by sharing what each does currently in the area of assessment.

In the beginning of Fall 1991 semester, I asked the department members if they would be willing to meet once a month to share assessment and teaching...
ASSESSMENT AWARENESS AT THE DEPARTMENT LEVEL

techniques. The department is a close one, where all members respect and support each other. I knew they would welcome the opportunity to share ideas. Furthermore, I welcomed a set time to meet with colleagues regularly to discuss professional topics. Having come to academe from private industry, I was astonished at the lack of time and opportunity to meet with colleagues in this manner. So, I proceeded with my plan.

A topic (pertaining to an assessment or teaching technique) and its facilitator was chosen for each session. The technique presented at each was one that each department member had implemented with a great deal of success. I set a fixed schedule, and all meetings were to occur at our “college hour” (no classes are scheduled during this time) on one Friday approximately every month. The senior members of the department have a reputation for employing a number of tried and true assessment methods and they offered to facilitate the beginning sessions, “to get the ball rolling.” To my surprise, two department members provided a catered lunch for the first meeting. Since we thoroughly enjoyed this, we all volunteered to provide lunch at each meeting.

The meetings proved to be very beneficial to all, especially to our two new department members. At the first session, we invited the Director of Career Counseling and Placement to come and analyze each department member through the Myers-Briggs Personality Type Indicator. We had all taken the exam prior to the meeting. The specialist attended the meeting to give us the results, explain the philosophy of the types and how they relate to different communication skills, and learning styles. Most of the department members could guess their own personality types, but some were truly surprised to learn of their types. Most importantly, we all realized that the MBPT is just one way to look at learning styles and preferences, and that it is not necessarily the answer to increasing teaching effectiveness in the classroom. However, we did gain an insight into our own learning styles, and how it can begin to help us understand our students learning styles.

In the second session, a senior member of the department led a discussion on the use of frequent quizzes in classroom learning assessment. Based on research performed in his early years at FLCC, and effective implementation over the past number of years, he feels that it is beneficial to all to develop a constant cycle of teaching, learning, and assessment. Short periods of time should elapse between each assessment (quiz). Feedback should occur frequently.

In the third session, a Computer Science instructor presented a discussion on the use of group activities in the classroom. She uses the team approach in many ways, particularly in assessing learning outcomes and in problem solving. She provided many examples, and others shared their thoughts on group and effective team strategies.
In the fourth session, a Math professor led a discussion on one-on-one student/teacher tutoring. The professor emphasized the need for faculty to be accessible, and believes that student success depends a great deal on the capability of the student to receive individual help and support from faculty. He finds that office hours spent in the Academic Support Center are one way to become an available and “approachable” faculty member. At this session, we also discussed the report by a Harvard University research team on “How Undergraduates Can Succeed”. Interestingly enough, studies done at Harvard pointed to faculty accessibility, group study teams, and use of frequent assessment techniques in the classroom as important ways in which to increase the retention rate in colleges and higher education.

At the beginning of the Spring 1992 semester, I was anxious to see if the department wanted to continue our meetings. I was pleased to discover that every member enthusiastically supported the idea. Four more workshops were held in spring during which members presented some interesting topics for discussion.

The first one was entitled “Using the Hewlett-Packard Calculator Tool in the Classroom.” Demonstration and participant hands-on examples were performed on a HP Graphics Calculator. Applications covered were sample problems from a Pre-Calculus class. The Hewlett-Packard Calculator overhead projection unit, a newly acquired piece of equipment to be used in conjunction with class activities, was demonstrated.

Using the math software, DERIVE in the classroom was the topic for our second session of the spring semester. Demonstration and participant hands-on activities were performed on an IBM-PC with the software DERIVE. Application examples were taken from a Calculus I course.

“Teaching Learning and Study Skills in Mathematics Courses” was the third topic. Some very useful tips and techniques used by the presenter in “helping students learn how to learn” were discussed. These included time management, resources for help, study habits, writing class notes, and taking notes from the text.

“Some Quick Classroom Assessment Techniques” was the name of the last spring session. The facilitator spoke of specific assessment techniques that she has implemented within the classroom: goal setting and focused listing. It was stressed that assessment techniques are to supplement and complement teaching style, and that they should in no way replace testing and evaluation.

Throughout the course of the year, I was asked on a number of occasions to speak at college wide functions about our department “luncheons.” The college community was astonished, and many disbelieved that the Math Department was actually learning about assessment. Certain members of the administration approached me, and requested to come to our meetings to see how they worked. However, I was reluctant to open the meetings to non-department members. This
was something that worked for us and I did not want to spoil it and discourage involvement in the first year. However, plans for the future include continuation of the meetings, and inviting academic department faculty members from outside the Math and Computing department to present topics. Some specific topics for discussion at our meetings, that I know members of the college community have successfully implemented are: “Portfolio Assessment,” “Contract Learning,” and “Capstone Course Curriculum.”

It will be a long journey to defining, refining and implementing assessment processes at all levels at FLCC, but I am satisfied that my plan to implement “assessment awareness” in the department was a success, and the benefits were many. An important observation of the activity led me to the discovery that not all department members agreed with the philosophy or teaching technique presented at every session. However, no one was threatened by this; we enjoyed the challenge and discussion in each case. Most importantly, we had a great time learning from each other. We all learned more about assessment, teaching and learning.

The table on the following page summarizes the topics and refers the reader to any handouts or example documentation that the presenter furnished at each session.

Sandra Brown is an Assistant Professor of Computer Information Systems and has been employed at the College since 1987.
# Assessment Awareness at the Department Level

<table>
<thead>
<tr>
<th>Assessment/Teaching Activity</th>
<th>Brief Description</th>
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<tbody>
<tr>
<td>Myers-Briggs Type Indicator Testing and Analysis</td>
<td>The Director of Career Planning analyzed all members of the dept (all had taken exam prior to the meeting). She educated us in all personality types as the MBTI philosophy teaches. She stressed the importance of recognizing that different personality types prefer to learn and communicate in different ways.</td>
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<tr>
<td>Frequent Quizzes</td>
<td>The advantages to using frequent, unannounced, 20 minute open note quizzes as an assessment tool were discussed. i.e., keep students on their &quot;toes&quot;, they can't fall behind in the coursework, improved attendance, etc.</td>
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<tr>
<td>Team and Group Activities in the Classroom</td>
<td>The use of small and extensive group project assignments and team assessment nets productive results in the classroom. The advantages of the team approach were discussed. i.e., students will work in groups when they get jobs in their profession, etc.</td>
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<tr>
<td>One-on-one, Teacher/Student Tutoring</td>
<td>The advantages and importance of teacher/student tutoring were discussed. Ways in which an instructor can better assist himself to the students were discussed, and student retention was also discussed.</td>
</tr>
<tr>
<td>Some Quick Classroom Assessment Techniques</td>
<td>Goal Setting and Focused Listing were two specific assessment techniques that were discussed. The instructor has tried these and adaptations of the techniques and shared all with the dept.</td>
</tr>
<tr>
<td>Using the HP Calculator Tool in the Classroom</td>
<td>Demonstration and participant hands-on examples were performed on a HP Graphics Calculator. Applications covered were sample problems from a Pre-Calculus class. Use of the overhead projection unit was part of the demonstration.</td>
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COURTING ASSESSMENT AS AN AGENT OF CHANGE IN THE ENGLISH 101 CURRICULUM

Sandra K. Camillo

The Belhurst Castle in Geneva was the setting for the 1991 Summer Institute on Assessment where a panel from King's College spoke to the joint Faculty Association and Administrative Assessment Committee and department chairpersons about "institutionalizing excellence." While the Finger Lakes Community College campus was deconstructed and reconstructed that summer, Dr. Donald Farmer, author of Enhancing Student Learning: Emphasizing Essential Competencies in Academic Programs, spoke to us on how to construct a model and design a mold for classroom research and curriculum assessment. The education reform movement that King's College represented is a "management tool" for the learning process: one which not only helps students acquire the characteristics of a good learner, but one in which "student involvement, high expectations and assessment and feedback contribute to the true test of institutional quality" (Farmer, 1988). The desired state, excellence, would require some change; could the impossible be made probable, could magic and marvel exist beyond the realm of the reality of the acceptance of the status quo and tradition at our college?

The assessment movement represents a shift in views about academic quality away from traditional methods of program evaluation toward the quality of the student learning experience. The learning experience or learning outcomes are a measure of what actually happens to students while attending college, an articulation of what is expected of students when they exit our course/program/institution and specific means by which we help students meet these criteria.

To implement this ideology of using assessment to improve quality teaching and student learning and thus improve the quality of education at FLCC, three basic questions addressed by assessment are:

- What should students learn?
- How well are they learning it?
- How does the course/program/institution know students have learned?

These questions may not be new to higher education, but the renewed interest in answering them has arisen from mandated assessment principles and guidelines. The 1990-91 Assessment Committee at FLCC, for example, designated eleven learning outcomes/competencies that reflect qualities or characteristics that graduates should demonstrate as well as the Mission and Ten Convictions of the

And now at Belhurst Castle, there seemed to be more fundamental reasons to examine the questions. Put simply, responsible academics should be concerned about improving the effectiveness of teaching and learning in their courses and programs. The assessment process had filtered down from theory to practice at last, and we "critical few" instructors of change on the assessment committee were to gain the support of the "critical mass" who may be resistant to this process of an outcomes-oriented curriculum.

Since writing is one of the eleven learning outcomes/competencies that reflects the Mission and Ten Convictions of the College and in order to solicit from my colleagues responses and opinions to questions raised by assessment, I developed a questionnaire for distribution to full-time and adjunct faculty teaching English 101 during the Fall 1991 semester. My goal was to find out (1) what activities were already in place, (2) how well they were working, and (3) open the floor to discussion of assessment issues. In the past, there may have been informal discussions held among the faculty about what text so-and-so was using or how many essays what's-her-name required of students, but from this formal inquiry of completed questionnaires (15 of the 19 sent out to 10 full-time, 9 adjunct instructors of Freshman English), a profile of our varied practices concerning selection of texts, use of texts, use of class time, kinds of writing assignments, computing final grades, and objectives of teaching could be made.

The responses to a question concerning an assessment instrument already in place, the English competency exam or the Exit Essay that is part of the requirement for completing English 101, was the most controversial area addressed and the issue that caused heated discussion among English faculty the rest of the academic year. When asked, "As a tool for assessing student competency, do you find the exit essay satisfactory or unsatisfactory?" 66.7% of the English faculty found it unsatisfactory and 13.3% found it satisfactory (20% didn't respond to the question).

In 1981, the minimum competency writing exam was implemented to set standards for our college and to help insure that these standards are met by English faculty and students. While entry assessment has remained essentially the same over the years (all entering students write an impromptu essay and their performance on that essay coupled with their score on a reading-comprehension test places them at one of three levels within the college: College Composition, English 101, or Honors English), the exit assessment had undergone revisions and yet remained a subject of controversy.
The skills assessment entry tests are noted in the college catalog under Admissions Policy; the exit essay assessment test is not listed in the catalog under Graduation Requirements or General Requirement for Degrees. It is a part of the course description for English 101 that reads: Each student must pass a minimum competency exit essay.

There are several sources of dissatisfaction with the exit essay, some of which concern the assessment tool itself, but most of which are endemic to the whole concept of using a sixty minute essay as an exit assessment with the main message of English 101, then, that passing the course is not enough; you must pass the exam. In answering the questions raised by assessment, many department members disclosed their belief that such an essay can not adequately assess either the students' writing skills or the progress those students have made as a result of their work in the course. There is also some question as to whether the results obtained by the method do not, in fact, contradict the current theory in writing that recognizes the value of varieties of writing and stresses the writing process (Elbow, Murray, for example, have written extensively on this concept.). Since the impromptu exit assessment clearly emphasizes writing as a product, there is a mismatch between what instructors of writing profess and what students are to practice. Using the 60 minute impromptu assessment lengthens the class time spent dealing with impromptu writing in preparation for the exit essay exam and actually undermines English 101 instruction which concentrates on process and revisions (not possible on the impromptu) and makes teaching writing as a process difficult, almost hypocritical. The exit essay makes it tempting for some to turn the curriculum into a program to teach students how to produce a credible essay within time constraints--simply test preparation. Not familiarizing students through practices with the stages of the writing process, not acquainting students with the benefits of revision, not exposing them to collaborative classroom effort, drives us toward a curriculum that is less rich academically.

There are less global reasons for being dissatisfied about the competency exam: some faculty see problems with the validity of the scoring, the effects of reading hundreds of essays in a weekend by a panel of readers, the effects of test anxiety on some students, the impact of particular topics on particular days on particular students, and the research findings that a test is not really a fair measure of writing skills unless it measures three pieces of writing in two to three genres of two to three days by two to three assessors (Odell, 1981).

Despite all of these reservations though, most of the English faculty are in sympathy with the goal behind the exam which is to ensure that all students achieve a certain level of competency in writing. We are less sympathetic with its attempt to impose a kind of quality control over the instruction of individual teachers. This is where the Belhurst Castle and King's Court activities have left the faculty.
collaboration in writing assessment: The 1992 Humanities Department Program Review Assessment Report takes issue with the exit essay, then, and as “a part of the continual renewal and evaluation of past efforts to improve the approach and process used” recommends that it be moved from English 101 into a college-wide format in an effort to guarantee a commitment to writing as an entire college responsibility. The 1992-93 academic year is an interim period during which a special committee of faculty from various departments is studying the issue.

Although the assessment mandate surfaced the conflict instructors feel when attempting to support the competency exam as a measure for so complex a skill as writing, the evolution of its implementation as a college-wide writing proficiency examination was considered by the department as early as 1986. The writing faculty are unhappy with the exit essay for a number of reasons, but most importantly do not think such an exam, as is, encourages good teaching and learning.

Will the competency exam be redesigned, repaired, removed from the English 101 curriculum? One thing is certain: most English faculty are disenchanted with the exit essay and will continue to introduce the subject in our course with a disclaimer of some sort until the College accepts the challenge of change.

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REFERENCES


THE PYRAMID MODEL
Frederick L. MacNamara

A conceptual framework for describing institutional effectiveness in terms of student learning outcomes

The assessment initiative has been a positive force at Finger Lakes Community College. Inherent in this initiative is the potential to strengthen and improve the teaching/learning process and impact on institutional effectiveness and excellence.

One part of the assessment initiative has been an attempt to describe institutional effectiveness in terms of student learning outcomes. What follows is an explanation of what has come to be called the “Pyramid Model.”

The four stages of this assessment process which provide the foundation for the Pyramid Model follow. The first is to identify and describe learning outcomes. The second is to decide on the best methods of achieving these outcomes. The third stage is to gather evidence from the use of these methods to discover how successful student learning and educational efforts have been. And finally is the ability to use this information to improve the educational process.

Using the Eleven Learning Outcomes derived from the Colleges Mission Statement and Ten Convictions, the Pyramid Model being developed at Finger Lakes proposes to establish a framework for this assessment process.

The Eleven Learning Outcomes are: writing, oral communication, reading, math, information resources, problem solving, values, computer literacy, global concerns, citizenship and professional competency. These outcomes make specific at the institutional level an answer to the basic assessment question, “What should a graduate from Finger Lakes Community College know and be able to do?”

For each Learning Outcome, a multilevel pyramid is being developed. The levels indicate degree of mastery or competency. The base or first level indicates minimal expected competency for that learning outcome. The succeeding levels indicate increasingly difficult levels of mastery or competency for that learning outcome. The student attains each level of mastery or competence by, for example, taking courses, participating in activities or demonstrating proficiency.

These competency levels and pyramids for the institution are being internally developed by faculty working together, within programs and across departmental lines.

For instance, a committee comprised of faculty members representing different academic disciplines is working on the writing competency pyramid. The following is a rough schematic representation of how this fits together.
THE PYRAMID MODEL

WRITING COMPETENCY LEARNING OUTCOME

Setting Standards  =  Creating the Writing Competency Pyramid
(Identifying levels of expected competency)

Teach for it  =  At the course, program and institutional level

Select the assessment/evaluation tool  =  Writing competency examination

Put the process in place  =  Acceptance and adoption by faculty and administration

Monitor and modify if necessary  =  Advisory Committee
The following Computer Literacy Competency Pyramid is offered as an example of what a completed competency pyramid would look like.

Computer Literacy Competency Pyramid

- **Computer Literate**
  - Has an understanding of what a computer can and cannot do and an ability to make the computer do what is desired.
  - Has an understanding of a computer's uses and limitations and a knowledge of the software packages needed to accomplish a desired end.

- **Computer Competent**
  - Can use the computer to solve sophisticated problems in his/her field of expertise.
  - Comfortable using the computer and looks for better ways to use it and solve problems.
  - Sometimes referred to as a power user because he/she utilizes the most powerful features of the computer and its programs.

- **Computer Proficient**
  - Has acquired the knowledge to write programs to solve problems on the computer.
  - Uses computer programming and applications in his/her field of expertise.

- **Computer Mastery**
  - Information Systems Professional or Computer Scientist whose future work academic area will be centered around computing.
  - Has acquired the knowledge needed to be a success in this field.
  - May design, develop software and hardware for others to use.

In conclusion, the Pyramid Model for describing student learning outcomes is faculty developed and implemented. It deals with teaching and learning expectations at the institutional level and approaches institutional effectiveness from a learning outcomes perspective. Most importantly, it makes Finger Lakes Community Colleges expectations for the educational experience public for students, faculty and the community.

*Frederick L. MacNamara began teaching at FLCC in 1976 and is a Professor of Sociology/Human Services.*
One of the primary objectives of the Associate in Applied Science degrees at community colleges is to provide career preparation so that students may enter the job market upon graduation. Fulfilling this objective presents unique challenges for the college faculty, college administration and industry professionals. These challenges are being expanded by a national trend which focuses upon academic assessment. Academic assessment that involves not only internal measurements to determine if academe is meeting its objectives, but also the utilization of external assessment methods. A creative method of utilizing advisory boards may be an approach to both student placement and academic assessment.

The majority of educational institutions respect the use of professional advisory boards. While developing and implementing the Associate in Applied Science degree in Travel and Tourism at Finger Lakes Community College, we discovered that the traditional role of an advisory board was not sufficient to service our degree and our students. We found one of the first challenges that needed to be addressed was the interaction and relationships between educators and industry professionals. It is important that industry professionals and educators do not view themselves as “us” and “them,” but rather as a team of “we.” The development of educational partnerships is imperative for industry and education to effectively work together. When these educational partnerships are developed and implemented, objectives for both industry and education may be mutually achieved.

Educational partnerships change the “business as usual” advisory board as we know it. In addition to the “eight member advisory board” that meets twice a year to provide advice regarding course changes, equipment updates, etc., the advisory board becomes what we refer to as a “living advisory board” that includes a variety of industry professionals. The role of this advisory board goes beyond advice. The interactions between educators and professionals occur on an ongoing manner, in addition to the formal meetings. The role of the advisory board becomes much more proactive than reactive. These professional interactions also now expand to include students as well as faculty.

The Associate in Applied Science degree in Travel and Tourism is a broadly based management degree focusing upon the Tourism Industry. The Tourism Industry is a young, very dynamic, diverse industry that includes many components. As this degree developed, it became apparent that it would be impossible for the
The diverse nature of the industry also presented challenges in the development and implementation of educational objectives that would capture and address this diversity. It was at this point that the need for educational partnerships, a living advisory board, became evident.

The advisory board's proactive role begins with assistance in the development of the educational objectives. Input from the industry professionals is a resource that must be utilized especially in the Associate in Applied Science degree. These are the individuals that will be providing career opportunities for students upon graduation. The proactive role of the advisory board continues with the implementation of the objectives. This role is evidenced by industry professionals' continuous participation in the academic program. The participation includes involvement in classes, site sponsorship for internships, and contribution of materials and information for faculty and students. This participation is not a casual event but a formalized, integrated ongoing relationship. In the case of the Travel and Tourism degree, there are several industry professionals that have participated in the program since the program's inception in 1985. These ongoing relationships with industry professionals become the foundation for involvement in the assessment process.

One of the major components of assessment is to determine if we are fulfilling the objectives that have been established. The concept which is being described provides a process that assists in the determination of the validity and appropriateness of the objectives on an on-going basis. It also provides a process that will assist in determining from external sources if the objectives are being fulfilled. These results will not be obtained with an advisory board that meets only twice a year.

The role of assessment that industry professionals may fulfill may be evidenced in the Freshmen Tourism field experience. This is a field experience that is offered to all freshmen in the fall semester. Objectives for this field experience include student exposure to the diversity of the Tourism Industry, the career opportunities available in the Tourism Industry, and three different destination experiences. The student's education occurs in an authentic environment presented by professionals in the industry. There are two elements integral to this experience that can be utilized in any applied degree program. The first element is that the student has the opportunity to experience authentic environments. The second element is the advice and information the student receives from the industry professionals. The student is exposed to successful role models, the competencies necessary for success, and the essence of the industry.

Effective assessment requires more than advice. It requires assistance from the private sector to determine competencies, current and future, that will be required of our students and then to assist educators to develop objectives that will
achieve those competencies. What effective assessment requires is the establishment of educational partnerships. These educational partnerships are represented by more systematically integrated relationships with professionals in the private sector. The time has come in education to move beyond traditional advisory boards to educational partnerships.

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Developing Evidence
Marylou Boynton

“This inability to document effectiveness and improvement hurts higher education's cause, especially in hard times.”

Peter Ewell

Question: How do you eat an elephant?
Answer: One bite at a time.

Physics teacher preparing class to analyze electrical circuits.

Institutions of higher education and the assessment movement share a fundamental problem: they must get results, or lose credibility. Public institutions of higher education must develop evidence of student learning that justifies the confidence of taxpayers. The assessment movement must produce evidence of student learning that can serve as a basis for policies and actions that will support improved student learning. In both cases, evidence of learning will be a vehicle for a discussion of priorities and resource allocation. It is the thesis of this article that the forms evidence of learning takes will influence the conversation of teaching and learning, the development of policy, and the likelihood of improving student learning.

Evidence of learning must make the goals of education visible (Ewell, 1988). The forms of evidence must provide the focus for a substantive conversation on teaching and learning. They must remind us why we are bothering to educate or be educated. They must also be permeable; that is, evidence should give us information about things we can influence, so that our actions, by changing learning, can change the evidence. And the evidence should describe group performance, because sound policy requires an understanding of general trends in learning, and cannot be sidetracked by “fluke” happenings.

Evidence of?

Finger Lakes Community College has already taken the major step of developing consensus about what should be assessed. The Eleven Competencies focus assessment on broad skills and knowledge bases. The Board of Trustees Resolution 1991-293 that requires each degree program to address the Eleven Competencies moved the College in the direction of “skills across the curriculum,” while allowing each program to indicate the meaningful forms the skills assume in relation to program goals. The program review process potentially influences
DEVELOPING EVIDENCE

the forms evidence will take, because it is at the program level that faculty indicate what evidence they will accept as adequate. The institution identified Eleven Competencies, and Resolution 1991-293 asked that these competencies be conceptualized to be relevant to the programs. But it is program faculty who will select the learning experiences in the curriculum that will be used to describe attaining or failing to attain the program goals for learning. The college has said, “Let’s address oral communication.” When the ECT faculty say, “We will do this by evaluating videotapes of students explaining their projects to audiences who have a technician’s understanding of electrical technology,” the evidence identified by faculty sets a standard, and so influences the meaning of oral communication at Finger Lakes.

EVIDENCE AS SUBSTANCE

To fulfill the role of keeping the goals of education visible and amenable to teaching, evidence of learning must be anchored in concrete examples: term papers, library searches, computer programs debugged, projects of all kinds. Concrete examples of work communicate the notion that the goal of education is to make it possible for people to be able to do things. “Things” includes skills like using a chain saw correctly, and participation in processes, like valuing activities, as well as mastering content and developing skills in reading and writing.

However, concrete examples alone can easily represent idiosyncratic performance. To function as descriptors of general student competence, model examples need to be supplemented by summary statements of group performance. The criteria used to identify exemplars can be applied to a corpus of student work and a summary description of the extent to which the student population as a whole attains the model’s standard should be developed to supplement the models. So, for example, program faculty could identify a writing project such as a required term paper as the focal point for evidence about program goals for writing. Faculty could identify a few “perfect” examples, articulate the criteria they used to identify the examples, and rate a batch of papers using these criteria. This would permit a clear display of their goals for student writing as well as a broad general statement of the extent to which general student performance met the criteria used to establish the goal. Information about program outcomes would take the form of an example of the type of work done by students who meet program goals and a statement regarding the percent of students who were able to meet the criteria used to identify the example. A term paper identified as an example because its author used course vocabulary accurately, wrote with detail, and developed ideas logically would be supplemented by a statement that 80% of students were able to use course vocabulary at this level, 70% of students wrote with the level of detail in the paper,
and 60% of students were able to develop ideas logically. Outcomes presented in this fashion communicate goals for learning, and indicate areas that can be addressed by teaching. They are in a form that can be understood by diverse audiences: students, teachers, college professionals, and other stakeholders.

**Systemic Validity**

But what about rigor? What technical properties would permit us to trust this evidence, and are suited to its purpose of providing general statements of student exit competence and information that can be used to improve teaching and learning, and so improve exit competence?

Historically standardized measures of student learning have been recommended as outcomes assessment measures on the basis of superior technical qualities and the existence of norms that permit an institution to compare how its graduates are doing relative to those of other institutions. However, these instruments have not been very useful as measures of learning that yield information that is tuned to teaching issues. The experience of the faculty at the University of Tennessee, Knoxville, suggests that these measures may be methodologically inadequate for the task assigned them (giving feedback on learning that can impact teaching). UTK faculty examined four standardized measures as assessments of their general education program. Faculty and students found little congruence between these measures and the content of the general education program, suggesting that the content of the standardized measures was invalid for the program. The norms of the exams reflected user institutions, and were not real national norms. Most tellingly, the best predictor of success on the standardized exams was student ability and background; the exams were relatively insensitive to the curriculum and teaching at UTK (Banta, 1992). The irony is that the commercial process of developing "technically correct" standardized exams may produce an instrument so general that it becomes invalid as a measure of learning that occurs in a specific curriculum at a specific institution. Standardized measures can play a useful role in assessment programs, but it is important to realize their use does not automatically solve technical problems.

The prominence of commercial standardized instruments is yielding to the increasing use of faculty designed assessments of learning for evidence of learning at the program level (Banta, 1992; Burke, 1992; Ludwig, 1992). This trend reflects faculty skepticism of the relevance of the information provided by test scores, as well as their determination to assess complex, integrated abilities that are poorly modeled by the multiple choice format (Moss, 1992).

The trend away from standardized measurement has prompted a renewed discussion of the criteria for validity in educational measurement (Moss, 1992;
DEVELOPING EVIDENCE

Ewell, 1988). Increasingly, the consequences of assessment are being considered criteria for validity (Moss, 1992; Fredericksen & Collins, 1989; Chronbach, 1980). Fredericksen and Collins address the fundamental goal of assessment: change in learning towards desired outcomes. Assessments which produce this result are said to have "systemic validity" because they yield information that impacts "the system."

Systemic validity derives from the capacity of an assessment to effect changes in instruction and curriculum that, over time, support the development of the abilities the assessment seeks to gauge (Fredericksen & Collins, 1989). To maximize systemic validity, an assessment system should have a set of tasks that demand the abilities to be assessed, a library of exemplars of all levels of competence, criteria for evaluating the examples, and a training system for evaluators. The training system should include master assessors/teachers who develop the criteria, teacher/coaches who help students to work towards the levels of competence indicated by the criteria, and students who internalize the standards represented by the criteria (Fredericksen & Collins, 1989). The criteria should indicate aspects of competence that can be addressed by teaching (e.g., use of technical vocabulary, logical sequencing of ideas).

It is reasonable to argue that systemic validity lies as much within the system as the measure: that is, the potential of an assessment to impact a system depends on important ways on the willingness of the system to change to support improved teaching and learning. However, the very structure of assessment systems with systemic validity argues for change, because the assessors/teachers must discuss student work in relation to criteria, thereby engaging in a substantive conversation of teaching and learning.

EVIDENCE FOR CHANGE

This article began with the assertion that both higher education and the assessment movement had to get results to maintain credibility. Is there any reason to believe this can be done? Banta (1992), who is preparing a book on the uses of assessment findings, reports a number of institutions that have increased writing requirements as a result of assessments (e.g., Dyersburg (TN) State Community College, Lehman College of CUNY, Virginia Polytechnic and State University, and University of Tennessee Knoxville). Assessment often reveals students have difficulty with mathematics. At Northeast Missouri State University, the unfortunate finding that students' mathematical competence decreased from their freshman to senior years led to curricular revision that requires more mathematics instruction. Assessment findings have prompted "across-the-curriculum" instruction, and have provided a rationale for saving or increasing hours devoted to general.
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education. And last but by no means the least, assessment findings often lead to faculty development that leads to improved teaching and learning (Banta, 1992).

WHAT CAN FINGER LAKES EXPECT FROM ASSESSMENT?

Assessment results at many institutions indicate that students need a great deal of help in writing and mathematics (Banta, 1992). Sometimes assessment reveals that skills valued by an institution are not being systematically addressed by instruction, with the unsurprising finding that the untaught remains unlearned (Schilling, 1992). Another common finding is that students have difficulty transferring classroom learning to out-of-class situations, or lack the social skills that would permit them to put their learning to use “in the real world” (Banta, 1992). It seems reasonable to expect that assessment will reveal similar findings at Finger Lakes. Unsurprising findings, but findings frequently described as so enormous and so unmanageable that they will defeat any curriculum.

ON EATING ELEPHANTS

Assessment draws our attention to our work. Different forms of assessment invite faculty to look at their work in different ways. When program faculty rate the extent to which they address the Eleven Competencies in a curriculum, they develop evidence for the relative importance of the competencies to that curriculum. Following the rating, they can decide if the emphasis placed on competencies reflects program goals. Simple as it is, a rating can indicate a place to begin to develop a curriculum.

Basing outcomes evidence on exemplars of student work argues for a place in the curriculum where the desired skills can be assessed. Some curricula at Finger Lakes (e.g., Nursing, Conservation, Travel and Tourism, Electrical Technology) have sophomore seminars that are ideal for these types of assessments. Other curricula may need institutional support in developing seminars that could be program capstones. In this case, assessment can prompt the development of new instructional groupings.

Assessments that review student work in relation to criteria should clearly point to places to start amending teaching and learning. If the criteria used to review student work are precise and relevant to teaching, then the process of developing evidence will let us bit by bit achieve the enormous goal of providing quality education to Finger Lakes students.

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REFERENCES


GATHERING INSTITUTIONAL DATA FOR ASSESSMENT
Rebecca Burgess

BACKGROUND

With a new institutional emphasis on program assessment in 1991, staff and faculty at Finger Lakes Community College soon became aware of serious inadequacies in the available data. Traditional institutional measures such as enrollment, retention rates, graduation rates, percent of graduates employed, numbers of students who transfer to a four-year school, etc. were collected and some were routinely sent to the SUNY Office of Institutional Research, but little information was available broken out by program. When survey data were collected from alumni, relatively low response rates yielded relatively small numbers and unreliable statistics. It was simply not realistic to expect faculty to become involved in the process of program assessment without supplying them with basic institutional data on students enrolled in their programs.

Rather than second-guessing the specific needs of faculty and staff for data on their programs, the College initiated a comprehensive needs assessment study in the fall of 1992. Interviews were conducted with the chairs of each academic department as well as individual faculty members who were intimately involved in program assessment and program review.

In addition, key staff responsible for collecting, maintaining, and using student data were interviewed. They included administrative staff in the areas of career development, academic advising, planning and institutional research and alumni affairs. All those interviewed were asked to identify the data they would find most useful for program planning and assessment. Some departments were involved in developing learning outcome measures that applied only to their own program(s). However, for purposes of this study, emphasis was placed on institution-wide measures—that is, information which could be produced by the institution and which would be uniform across programs in both definitions of terms and methods used for data collection.
GATHERING INSTITUTIONAL DATA FOR ASSESSMENT

A CONCEPTUAL FRAMEWORK

A simple conceptual framework was used to organize types of variables identified as needed for assessment purposes. First, it was assumed that the community college’s mission is to develop in students basic skills necessary to prepare them for: (1) active, informed citizenship and (2) transfer to a four-year school or (3) immediate employment after graduation.

Learning outcomes or competencies most critical for citizenship include critical thinking/problem solving, global awareness (i.e., appreciation of diverse cultural perspectives and awareness of the interdependence of all biological and social life), and thirdly development and articulation of personal ethics and values. Basic skills or competencies most critical in preparing students for immediate employment or transfer include writing, reading, math, oral communication, information gathering, critical thinking/problem solving, and computer literacy. Objective measurement of these learning outcomes or competencies represents one way to assess the quality or adequacy of what the college does as an institution. Other, more subjective measures of quality include ratings by students, alumni, employers and transfer institutions of how well our students were prepared.

There is a second category of measures used in assessment which does not relate directly to the quality or outcomes of teaching and learning. What we will call process measures relate instead to the extent of our activities or efforts as an institution. Examples of process measures are enrollment statistics, student goals, retention, attrition, transfer rates and alumni employment. Such measures show students in the process of moving through the educational system, but they do not directly address the results of what we do—i.e., how well we achieve our ultimate mission of preparing students for successful transfer, employment and citizenship.

Most assessment is done to inform ongoing, internal decision-making concerning improvement of programs and services. We refer to this as formative assessment. Formative assessment relates to activities in each of the following four functional areas:

(1) Teaching (e.g., decisions about course content, developing or modifying the curriculum, changes in classroom instructional techniques, testing and grading). The primary clientele for information of this kind are faculty and department chairs. They are generally interested in course-level outcome measures.

(2) Academic program administration (e.g., decisions about modifying the mix of programs and degrees offered, class size, course scheduling, and resource allocation among existing programs). The primary clientele are department...
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chairs, the Academic Dean, President, Director of Community Education, other institutional administrators and trustees. They are generally interested in program-level process measures and cost.

(3) **Student support services** (e.g., decisions about academic advising, library services, learning center, career planning, job placement, counseling, skills assessment, financial aid, EOP/access for special populations, security/safety, student activities, bookstore, student health, food services, parking, day care, computer services). The primary clientele are the Vice President for Educational Services, President, other institutional administrators, and trustees. They are generally interested in cost and institution-level process and outcome measures.

(4) **Institutional operations** (e.g., decisions about finance, institutional computing, registrar, admissions, bursar, personnel, community relations, planning, budget, institutional research, alumni development, and maintenance of building and grounds). Primary clientele are the Vice President for Administration, President, other institutional administrators, and trustees. They tend to be interested in institution-level process measures and cost.

In addition to formative assessment for purposes of ongoing improvement in programs and services, there is summative assessment for purposes of external judgements, policy-making, regulation, and funding by individuals, agencies and governing bodies outside of the college. Primary clientele are SUNY, the County Board of Supervisors, state and federal legislators, government regulatory personnel, and regional accrediting agencies. Such external constituencies are generally interested in standardized, institution-level outcome, process and cost data that can be used to establish accountability to taxpayers and to compare the college with similar institutions for the purpose of facilitating rational resource allocation between competing institutions.

In summary, for purposes of this study, the conceptual framework described in this section was useful in classifying data and assessment activities along four dimensions:

(1) purpose of the assessment (e.g., formative or summative)
(2) information user (e.g., for teaching, program administration, student support services, operations or external policy-making functions);
(3) specificity or level of measurement (e.g., institution-wide, program, or course level);
(4) type of measure (e.g., outcome, process or cost measure).
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For example, cost per FTE for all SUNY community colleges is an institution-level, process/cost measure used by an external constituency for summative evaluation purposes. Graduation rates by program is a program-level process measure used by program administration for purposes of formative assessment. Improvement in the writing skills of Conservation majors taking Introduction to Man and the Environment is a course-level outcome measure used by Conservation faculty and the department chair for purposes of formative assessment. At Finger Lakes Community College, Program Assessment is the name we have given to course-level outcome measurement for formative purposes. Formative assessment at the program and institutional levels is referred to as Administrative Program Review.

The ability to classify assessment activities and products should help us in the future to think about assessment, talk about what we are doing, and assign responsibility for portions of the total assessment effort to appropriate individuals.

FINDINGS REGARDING DATA NEEDS

Virtually all data requested by the academic department chairs and staff who were interviewed was program-level information. In general, they wanted to know by program the characteristics, status, skills, and goals of both entering students and current students; the retention, GPA, graduation rates, and satisfaction level of current students; characteristics of students who withdrew before graduating, their reasons for leaving and their satisfaction with program and college; and levels of success experienced by FLCC graduates in terms of transfer and employment. Specific data elements that were requested are listed below:

INFORMATION ABOUT ENTERING STUDENTS

All broken out by initial program choice (treating emphases within A.A. as separate programs) and by initial goal:

- Demographic characteristics (age, sex, racial/ethnic status, residence)

- Other background characteristics (h.s. grades, previous degree(s), current employment, whether attended any other college)

- Financial aid (Who is paying the tuition bill?)
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- Basic skills/placement test results (reading, math, writing)

- Enrollment status: matriculated? admitted to college? program of choice? part-time/full-time?

- Campus at which most courses are taken

- Initial goals at time of enrollment and how crystallized these goals are (e.g., Does student intend to obtain a degree or simply take a few courses and then work or transfer?)

- How students heard about the program and the college

- Whether they attended any college previously? Which? Where? How long ago?

- Name, address, telephone number of a person who will always know where they are (for purposes of surveying alumni and withdrawing students)

**Information About Current Students**

All by current program choice (treating emphases within A.A. as programs) and by current goal:

- Characteristics of students (age, sex, race/ethnicity)

- Original program selection crosstabulated by current program to show numbers of transfers between programs. (Did the students leave the major but stay on at the college? Are they transferring to a related program?)

- Current enrollment status (i.e., matriculated? admitted to program? full-time/part-time? year entered FLCC, number of semester hours completed). To what extent are students staying more than the expected two years?

- Financial aid status

- Retention: percent still enrolled from original entering class, by number of years since first enrolling at FLCC
  
a. % still enrolled in original program
  
b. % still at FLCC but transferred to another program
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- Why students transferred to another program within the college
- Numbers who drop out of selected courses and transfer to another section of the same course and their reasons for doing so
- Cumulative GPA (give separate GPA for regular and developmental courses)
- Whether student has used educational support services such as library, counseling, Academic Support Center, etc.
- Learning outcomes (skills improvement since entrance) measure skills at entrance and just prior to expected graduation date
- Student’s satisfaction with the program, with support services he has utilized and with the college. Is the program meeting his expectations? Student’s rating of program quality.

Information About Students who Withdrew from the College Without Graduating

By most recent program choice and most recent goal:

- Demographic and background characteristics (who leaves?)
- Reasons for withdrawing (why did they leave?)
- Current status (where did they go?):
  a. enrolled at another college (which? where?)
  b. employed? (in area of program choice?)
  c. looking for employment?
  d. other

- Student’s satisfaction with their last program, with support services they utilized and with the college. Best/worst features of each. Do they feel they achieved their goals? If not, what problems/obstacles did they encounter that prevented success? To what extent do they feel their skills improved?
- Percent who succeeded in reaching their goals, by type of goal
- Learning outcomes (improvement in basic skills from time of entrance to time of withdrawal)
- Whether they have used FLCC services and facilities since leaving
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**INFORMATION ABOUT GRADUATES**

By most recent program choice:

- Student demographic and background characteristics

- Degree(s) awarded at FLCC (include multiple degrees and certificates); dates

- Date first enrolled in most recent program

- Graduation rate by initial goal, by number of years since first entering FLCC and by part-time/full-time status during most recent semester

- Current status:
  a. transferred to 4 year school (where? degree sought?)
  b. employed (where? in field of training?)
  c. looking for employment
  d. other

- Additional degrees earned since graduating from FLCC

- Whether graduate has passed board or civil service exams necessary for employment in his/her field, by demographic characteristics, by full-time/part-time in most recent semester, and by cumulative GPA. (for nursing graduates, break out GPA by science/non-science courses)

- Graduate’s satisfaction with program and with FLCC. Aspects of program that were most helpful and most problematic. Extent to which graduate feels well-prepared. Training they wish they had received.

- If transferred, what is the graduate’s most recent program? Is it related to his/her FLCC program? Do FLCC graduates feel they have succeeded at the four-year institution? Did they graduate from that institution? Are they still enrolled? What problems have they experienced?

- If employed, is it in the graduate’s field of training? Do graduates feel they have been successful in the workplace?

- Whether the graduate has used FLCC services and facilities since leaving the college (e.g., library, career development, etc.)
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OTHER DATA REQUESTED

- Cost per FTE by program and administrative unit (with and without allocation of institutional overhead expenses). Some problems are anticipated, including allocation of equipment and instructional costs when non-majors are also served by the courses (e.g., computer science)

- Departmental teaching loads (preparations and teaching hours) by department officially responsible for faculty teaching the course

- Employer’s satisfaction with the skills and level of preparation of FLCC graduates, by FLCC program(s) of graduate

- Transfer institutions’ satisfaction with skills and preparation of FLCC graduates, by FLCC program(s) of graduate. What skills do they feel need improvement? Are our graduates successful there? What additional support services are needed at FLCC to insure success?

- Compatibility of FLCC course offerings with transfer institutions’ requirements.

- Grade distribution by course and department (each semester)

- Comparative data on retention and reasons for withdrawal at similar two-year colleges

- Projected enrollment trends five years from now (e.g., H.S. graduates/population trends with analysis of how it will affect our FTE enrollment)

CONCLUSIONS

Most of the data requested for program assessment purposes was data describing our students at three stages: at entrance, during their two (or more) years of study at the college, and after leaving the college (see Figure 1). A simple and logical approach to collecting such information would be to conduct surveys of (1) entering students, (2) current students, (3) withdrawn students and (4) graduates. Finger Lakes Community College has traditionally surveyed graduates at one and three years following graduation. The ACT Student Opinion Survey has been used twice since 1985 to collect information about our current students. We do not yet survey entering students, but there are plans to do so in 1993. There is currently
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no provision for surveying students who leave the college before graduation.

Before plans are set for additional data collection, a second phase of this study will be undertaken. In the Spring of 1993, the college will conduct a comprehensive inventory of the data that is currently collected for various purposes (e.g., Middle States, SUNY, routine institutional research reports, college and departmental alumni surveys, etc.). This will be compared against the list of information requested to identify the gaps in the existing information. Finally, a program of data collection to fill those gaps will be proposed.

**Figure 1**

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