



Jackson College Plan of Assessment Of Student Learning

Jackson College
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Jackson College Plan of Assessment Of Student Learning

At Jackson College, all assessment efforts are congruent with the mission, inspired by the college vision, articulated by shared beliefs, and expanded by the shared values.

College Mission, Vision, Beliefs, and Values

Mission

Jackson College is an institution of higher education whose mission is to assist learners in identifying and achieving their educational goals.

Vision

Jackson College is a world-class institution of higher education where learners succeed and community needs are met.

Statement of Beliefs

As employees of Jackson College, **We Believe:**

- The success of our students is always our first priority
- We must perform our jobs admirably, giving our best service and support every day, for everyone
- Teamwork is founded upon people bringing different gifts and perspectives
- We provide educational opportunities for those who might otherwise not have them

- In providing employees with a safe and fulfilling work environment, as well as an opportunity to grow and learn
- Our progress must be validated by setting goals and measuring our achievements
- We must make decisions that are best for the institution as a whole
- Building and maintaining trusting relationships with each other is essential
- Competence and innovation are essential means of sustaining our values in a competitive marketplace
- We make a positive difference in the lives of our students, our employees, and our communities
- In the principles of integrity, opportunity and fairness
- We must prepare our students to be successful in a global environment
- Our work matters

Values

- **Integrity** - We demonstrate integrity through professional, ethical, transparent, and consistent behavior in both our decision-making and in our treatment of others; being accountable for our work and actions is the basis of trust.
- **Caring** - We demonstrate caring through attentive and responsive action to the needs of students and others. We listen with open minds, speak kindly, and foster relationships based on mutual respect and trust.
- **Collaboration** - We demonstrate collaboration through the mutual commitment of individuals and organizations who come together for a common cause, encouraging self-reflection, teamwork, and respect for ourselves and others.
- **Quality** - We demonstrate quality through innovation in the continuous improvement of all processes and services, encouraging students and others to become creative thinkers.
- **Inclusion** - We demonstrate inclusion by seeking involvement and providing access for those with diverse backgrounds to work toward a culture of equality while maintaining differences in a respectful way.
- **Service** - We demonstrate service by striving to make the communities we serve great places to live, work, and learn through our involvement, both as an organization and as individuals.
- **Leadership** - We demonstrate leadership by nurturing the full development of those we serve, identifying and empowering individuals' greatest strengths.

Last updated: June 21, 2013

Philosophy of Assessment at Jackson College

While the vision and values transcend all institutional roles, assessment of student learning is the exclusive domain of the faculty. The philosophy of assessment at Jackson College is the product of our collective thinking over the past several decades. Initially assessment was very focused on evaluation of the core curriculum, which has transformed into outcomes based general education competencies. Inevitably as

discussions broadened to encompass more of the college program, a philosophical foundation for assessment emerged that is now being disseminated and finding acceptance in ever-widening circles among the faculty, administration and students.

The end-in-view of the Plan of Assessment is quite ambitious. Our intent is to link course, discipline, program, and degree-level general education learning objectives to both the mission and to assessment criteria and procedures applied by faculty in the classroom and by the College in the community in which our students study and work. Our focus on the classroom experience will provide valuable feedback for faculty who seek better understanding of what happens when students engage in instructional activity, and for students who need to know where they can do better. We want to document the learning excellence we believe is taking place in our courses and programs, but still recognize areas where improvement should occur.

Our philosophy of assessment embraces a set of principles which are also highly regarded in the assessment community:

JCC ASSESSMENT PRINCIPLES

The primary reason for assessment is to improve student learning and development.

Assessment must involve a multimethod approach.

The assessment program is designed primarily for internal use in making decisions that seek to improve programs, instruction, and related services.

The development of an effective, valid assessment program is a long-term, dynamic process, not a single event.

The technical limitations of the data will be delineated in assessment reports.

Participation by faculty in student assessment activities will be supported and recognized by the college.

Assessment results will not be used in a punitive manner against students or faculty.

Assessment of student learning and development is a process that is distinct from faculty evaluation.

Leadership by faculty is absolutely essential to the maintenance of the worth and acceptance of assessment results.

The primary findings of assessment will be fed back to faculty and students for future planning and evaluation.

Our key purposes for the plan of assessment are:

- to ask important questions about student learning
- to collect meaningful information on these questions
- to use the information for academic improvement

Assessment will be conducted in a timely and systematic manner that supports both cross-sectional and longitudinal information analyses.

Description of Plan of Assessment

The Plan has gradually evolved over the past several decades into an increasingly coherent entity. Our academic community draws upon available indicators of student achievement and creates additional measures wherever strategic gaps exist in the evidence. The primary components of the Plan of Assessment are arrayed in the chart on page 7. The *time sequence* is shown by the progression of stages in the left column from top to bottom. The *organizational level* at which the assessment is conducted is identified across the top of the chart. This is a simplified representation of the wide ranging activities that are included in the Plan. Each component depicted in the chart is discussed in greater detail below.

Entry-Level Assessment

1. Program Admission
Both the Nursing and Allied Health Departments developed a selection procedure to increase the success rate of students chosen to enter their programs. Using available data from academic records, several student variables were chosen because of their strength of association with program completion and success. These criteria are reviewed periodically to insure their predictive validity.
2. ASSET and JC Writing Sample
The Foundational Skills Department identifies academically under-prepared students by course placement assessment to provide any writing, reading and math skills that students may need to better ensure their success with college-level courses. ACT's ASSET test is used for reading and math, and the writing sample is created and assessed by JC faculty who designed the format using the University of Michigan's English Board writing placement instrument as their prototype. Since 1990, 10 to 15% of all JC students have enrolled in at least one DE class.

Freshman-Level Assessment

Foundational Skills Test Out

At the conclusion of all FS classes, students are assessed to measure the level of mastery they gained. This Test Out is done by the classroom teacher within the department in which the class is taught. The DE department enters into the main frame the eligibility status of all DE students so that they will not register for inappropriate classes before completing their FS requirements.

On-Going Assessment

1. Classroom Assessment

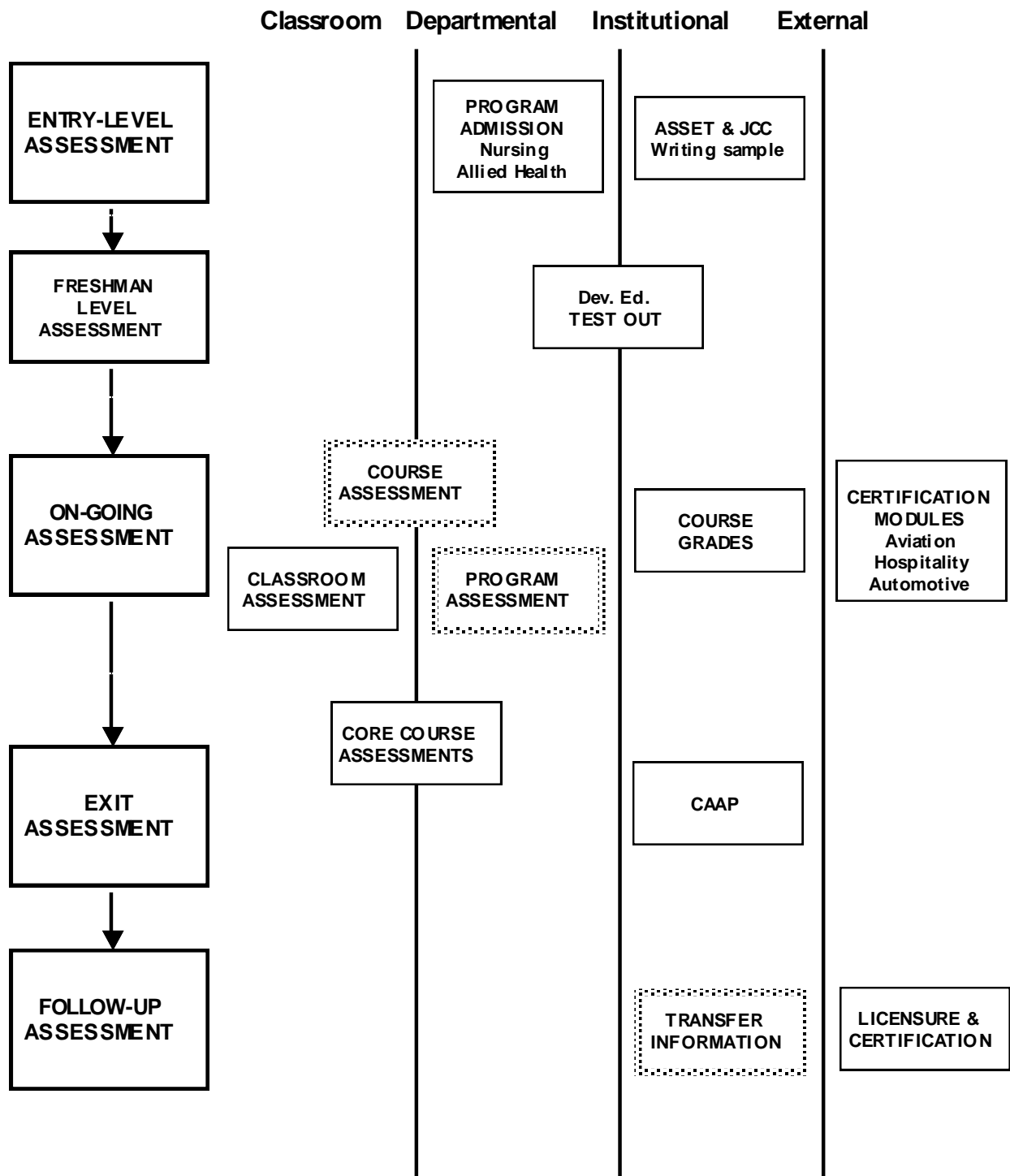
Teachers use classroom research techniques to receive immediate feedback on student learning within their own classes. At this level the benefit is immediate since the activities are short, discipline-specific techniques that give helpful information to students and instructors during the course of the semester.

Classroom assessment is as versatile as the imagination of the teacher who employs it. According to K. Patricia Cross and Thomas A. Angelo, (leading advocates of classroom research nationally), the advantage of this form of assessment is its adaptability to every type of learning environment. Multiple techniques can be employed even within the same classroom throughout the semester. Cross and Angelo report that even though the teacher can use classroom research in isolation, the most likely result is a sharing of ideas and results among faculty who employ it on a regular basis.

2. Course Assessment

One of the purposes of outcomes assessment is to measure student performance in knowledge, skills and attitudes that they exhibit at the completion of their course work. Outcomes are related to a variety of factors including the learning objectives and instructional methods of the teacher, and the individual goals and preparation that students bring to the classroom. Typically, different multiple measures are used periodically throughout a student's academic career to monitor both the process and the product of the teaching/learning experience. All departments are engaged in developing course-related assessment. In departments that are more closely aligned with transfer and academic service functions, the assessment effort will target individual courses or a desirable sequence of courses for which specific student outcomes can be identified and measured. Occupational departments will assess specific career skills and competencies that students exhibit at the completion of their programs or modules. In all cases, student learning outcomes for each course are itemized on the official course outline, and reviewed for validity and currency as an essential step in course review, which is accomplished at least once every five years.

Assessment Plan Schematic



NOTE: Assessment components in shaded outlines are not fully developed

3. **Certification Modules**
Aviation, hospitality and automotive occupational programs have specialized modules that allow certification for a specific skill upon successful completion of an appropriate test given by an external agency. For some students, the completion of one specific module is desired and certification completes their college activity. For other students intent upon completing an entire program, the certification modules become mid-curricular feedback instruments marking their progress toward graduation or program certification.
4. **Course Grades**
A traditional indicator of student academic outcomes is course grades. The Plan of Assessment recognizes the validity of course grades insofar as they are empirically derived from multiple measures of student performance of the defined learning outcomes for the course in question. Ultimately, the goal of tracking student grades is to increase the correlation between specific measures of student outcomes and the grades earned in course work.
5. **Program and Discipline Assessment**
For specific academic programs, assessment tools will measure student knowledge, skills and abilities at or near the completion of their program requirements. In the past, tools such as PROE or employer surveys have aided our understanding of program effectiveness. Faculty responsible for programs in the applied sciences have defined student learning outcomes and competencies at the program completion level. Similarly, faculty in academic disciplines focused on transfer courses have defined outcomes expected to be achieved by students who take three or more courses in that discipline. The actual measurement of student achievement of these outcomes occurs sporadically, but is reported at least every five years during the formal process of program and discipline review.

Exit Assessment

1. **General Education Assessment**
When the college replaced the highly integrated, multidisciplinary core courses with defined learning outcomes expected of students at the degree level, both the operational definition of and responsibility for general education competencies changed. At this juncture, nearly all courses are expected to contribute to at least one of ten defined Associate Degree Outcomes which, taken as a whole, constitute a very broad definition of general education. Those courses historically considered general education by tradition and transfer status are each required to contribute to at least two of the ADOs, while all other courses contribute to at least

one. Each associate degree outcome is operationally defined by two rubrics, one at the developing level and one at the proficient level. Each rubric establishes five categories of student performance or competency, which are further articulated in terms of means of measurement. Expectations of the extent to which students are expected to achieve each of these abilities are also made explicit. Data documenting student achievement in each category are collected and reported at least annually for each section of each course. The raw data are aggregated for all sections of a course by the lead faculty member, and only the aggregate data are reported to the committee for further analysis. Lead faculty members also document planned changes in the course based on a review of the assessment data, often after consultation with other faculty members teaching the same course. Some secondary measures of these data, e.g. reporting rates by discipline or outcome, are reported to the Board of Trustees and are available for inspection by other stakeholders. Assessment methods In use include course examinations, portfolios, attitude surveys and content analysis of student journals. Agreement to use identical assessment tools among faculty who teach the same course insures consistent evaluation of student outcomes for each course. Identification of strengths and weaknesses in student learning has already led to improvements in teaching strategies used in some classes. The compilation of these course assessments will assist in the measurement of knowledge, skills and abilities toward the end of their academic training.

2. CAAP

The CAAP (Collegiate Assessment of Academic Performance) standardized test measures general education skills commonly expected of college sophomores. These skills are taught throughout the college curriculum, making necessary a broad, cross-disciplinary approach to measurement. At the college-wide level, the CAAP is the one main tool that captures student achievement in the higher order skills measured by the test. ASSET scores, used for placement of incoming students, are also used in combination with CAAP scores among students who have taken both tests to track individual student progress in math and reading. ACT publishes both instruments and provides scoring matrices which allow a longitudinal study design and a close approximation of a pretest and an exit assessment. Comparison of CAAP freshman and sophomore scores provides summative (cross-sectional) information regarding student achievement at two different stages in their academic careers.

Follow-up Assessment

1. Transfer Information

Data from institutions of higher education to which JC students transfer is

presently limited. The assessment design requires data be collected from the state colleges and universities receiving the greatest number of JC students. We are specifically interested in the success students have had at getting credit transferred, and in their completion rates, GPA's and time-to-degree.

2. Licensure and Certification

In some occupations, students completing their academic programs and receiving a degree or a certificate are required to apply for a license or certificate from an appropriate board or certification body at a state or regional level. In the RN and LPN programs, students are given a licensure test by the Michigan State Board of Nursing. Students in the X-Ray program are tested by the American Registry of Radiologic Technologists. Sonography students are licensed by the American Registry of Diagnostic Medical Sonography. Auto technicians take the Motor Vehicle Mechanic Certification Test.

COHERENCE, CONGRUITY, AND COLLEGIALLY

The adoption of

Associate Degree Outcomes in lieu of the prior core curriculum, expands opportunities for students, focuses student learning outcomes for both students and faculty across courses, and provides opportunity for faculty collaboration in the design and assessment of learning experiences.

The faculty value similar ideas and processes and work toward similar goals. They want our students to observe, to identify ideas, issues, problems. They want them to evaluate and analyze what they see – by historical perspective, by scientific evidence, by consideration of values, by articulating what they see within a community of learners. They want them to apply their understanding of these processes to new problems and to think critically. Most importantly, the faculty want our students to become curious and excited, to discover and wonder, to reflect and create. These are the common human experiences they designed the ADOs to foster and promote.

Description of Plan's Development

At JC, "assessment" originally meant course placement. In the early 80's a placement program for all first-time students was initiated by the Developmental Education Committee. Mandatory placement is required for all students not exempted by ACT or SAT scores, or for previous educational success at the college level. Course placement is a three-part assessment of writing, reading, and mathematics using a locally developed

writing assessment and the ASSET Form B testing materials from ACT. The course placement requirement remains in force today.

In 1989 a faculty-led Assessment Committee formed with the objective of measuring student outcomes associated with the core courses. An assessment procedure adapted from Jim Nichols' *A Practitioner's Handbook for . . . Assessment Implementation* was introduced to core course faculty. Since those initial discussions, faculty in all courses have worked at creating assessment tools specifically designed to measure student achievement of learning outcomes for the courses they teach (pp. 9-13).

The entire faculty has participated in an array of meetings and conferences featuring strategies for assessment and opportunities to discuss the relationship between assessment and teaching. The most recent workshop held at the semi-annual faculty meeting in the spring of 1994 focused on HLC student assessment accreditation requirements and Nichols' model for linking course learning objectives to the college mission and assessment criteria and procedures. Each of eleven subgroups made up of faculty from different departments addressed a single course and put together student outcomes and appropriate assessment procedures by which to evaluate student success.

During the following year the procedure was adopted by academic departments throughout the institution for assessing their high enrollment courses. Department chairs worked with their faculty to have assessment plans that were operational by fall, 1995. The use of locally-developed assessment tools has remained a high priority with the Assessment Committee. Faculty-designed and faculty-administered assessment instruments allow the process to gain legitimacy among those who will modify their teaching strategies in light of the assessment results.

In addition, the Assessment Committee is responsible for the CAAP achievement testing conducted every fall and winter semester over the past four years. The committee has also promoted the use of classroom assessment techniques among teachers interested in reviewing the teaching/learning process at the day-by-day level of analysis.

Outcomes and the use of data for improvement

The Plan of Assessment has always been focused on the utility of student outcomes measurement for improving the teaching/learning process. Assessment in the core curriculum led to many changes in teaching strategies in the basic math course, the natural science course, and the wellness course. In addition, faculty in political science created mechanisms that enhanced their ability to discuss with part-time teachers the common expectations about student learning in their core courses. Communication of assessment findings was served by means of the quarterly publication of an assessment newsletter to full- and part-time faculty, administrators and staff [See Appendix].

Publication of CAAP scores has spawned review of the Associate's Degree outcomes by the Board of Trustees. Students also are given a report within a few weeks of completing the CAAP, showing their standardized scores and their success in comparison with other students who took the same test module.

The JC Plan of Assessment, as outlined in the following table, assigns the responsibility for each component to specific offices or departments which will select student samples, administer the assessment and oversee the implementation of findings. The entire Plan is under the review of the Provost who is an ex officio member of the Assessment Committee.

COMPONENT	WHEN	WHO	PURPOSE	WHAT IS DONE WITH RESULTS	RESPONSIBILITY
Program Admission	Upon completion of application requirements	Students applying for programs having special admissions requirements	Selection of student applicants for acceptance into programs with limited enrollments	Applicants are rank ordered and selected for program admission using their scores	Chairs and faculty in Nursing and Allied Health
COMPASS	During JC admissions orientation	First-time students	Increase the likelihood that courses selected by students will lead to academic success	Students are advised into entry-level classes and/or developmental classes suited to their academic needs	Advisors and Testing Lab Staff
Classroom Assessment	At the teacher's discretion during the course	Students in courses taught by teachers using classroom assessment	Allow mid-course adjustments of delivery and participation in course activities	Feedback is immediately available to teachers and students on the teaching/learning process in the classroom	Classroom teachers

continued

COMPONENT	WHEN	WHO	PURPOSE	WHAT IS DONE WITH RESULTS	RESPONSIBILITY
Course Assessment	During the semester	Enrolled students	Improvement in the effectiveness of the teaching/learning process	Findings are reviewed by faculty and Assessment Committee	Department chairs and their faculty
Course Review	Every 5 years	All Students	Assurance of course currency and learning effectiveness	Curriculum Committee	Department chairs and their faculty
Course Grade	At the end of each semester	Students receiving academic credit	Assign credit to students for course work	Grades are recorded in e-services by faculty and downloaded to students transcripts by the Registrar's Office Summaries are reviewed by the Assessment Committee.	Faculty and Registrar's Office
Program/ Discipline Assessment	Every 5 years	Students in various programs	Assist with curricular decisions regarding occupational programs and academic disciplines	Findings are reviewed by program faculty, Academic Council, and some Accrediting Bodies.	Faculty, department chairs and Academic Council
ADO Assessment	Annually	Students enrolled in all courses	Improvement in the effectiveness of the teaching/learning process and to assure GEN ED outcomes are achieved	Findings are reviewed by faculty, and Assessment Committee; and are reported by faculty to IR.	Faculty, Lead Faculty, department chairs, Assessment Committee and IR
Licensure & Certification	Annually	Graduates from programs requiring certification by external organizations	Provide an external measure of student outcomes	Findings are reviewed by faculty, Assessment Committee and published in the Fact Book	Departments with occupational programs leading to licenses or certificates awarded by external organizations

Assessment in a dynamic organization

To maintain the vigor of the Plan of Assessment, the College will need to develop mechanisms for using assessment results to update the institutional and academic plans and resource allocation. It will also need to ensure that assessment findings be fed back into the College's processes and program review and, if appropriate, encourage revision of the College's mission and purposes. Further, it will need to determine that the

accountable administrators and faculty groups view the assessment process as open to modification as the College seeks to discover whether and how well it is accomplishing the Plan of Assessment and its purposes.

The current structure, with the Assessment Committee overseeing and coordinating ongoing assessment activities and reporting directly to the Academic Council, will assure that the critical lines of reporting remain open and that sufficient institutional resources are dedicated to this process.

Our strength is that we have had an assessment initiative for several decades. The movement continues to grow and gain momentum. There is a perceptible change in faculty and student attitudes toward assessment — it is not seen as something done to us, but something we participate in and control. This is one of the strongest arguments that assessment is an integral part of our college's culture.

Appendix



Assessment Asides

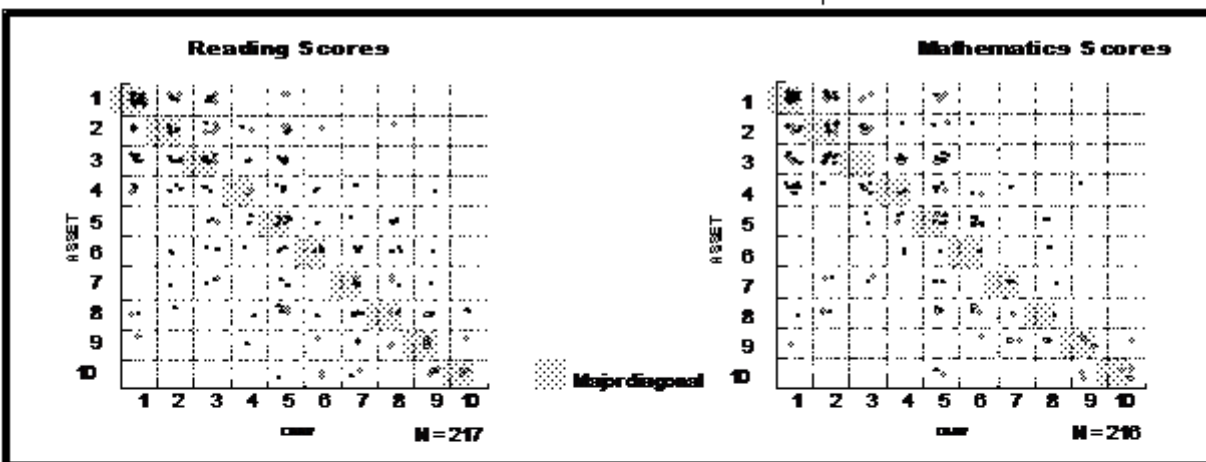
A Newsletter of Assessment Activities at JCC

Winter 1995 • Volume 2 • Number 4

From ASSET to CAAP: How much do students progress academically?

At JCC, more than 2,000 first-time-in-college students complete the ASSET placement test during orientation each academic year. Among those same students who as sophomores have taken the CAAP achievement test, a comparison of scores is now available from ACT, the publisher of both the ASSET and CAAP tests.

one of ten points that divides student scores into ten equal-sized groups, i.e., 10% of all students fall below the first decile, 20% below the second decile, etc. In the accompanying charts, decile categories are based upon a national reference group comprising 71 2-year and 4-year colleges using ASSET and CAAP.



One-third of students taking both the ASSET and CAAP tests improved their decile scores in reading and math.

The comparison of scores helps evaluate the academic progress and preparation of students attending JCC. ACT produces a report titled, "Decile Cohort Matrices." Every student with an ASSET score and a CAAP score in reading or mathematics is located in an appropriate cell of the matrix that corresponds to their ASSET and CAAP decile rankings. A decile is

The charts are divided into three areas. The major diagonal area contains those students whose decile ranking remained unchanged from ASSET to CAAP. The area above the major diagonal contains all students whose ranking advanced one or more deciles from ASSET to CAAP, and students below the major diagonal scored

(see *ASSET & CAAP* p.3)

Assessment Activities at JCC
 Assessment Center, 1000 University Avenue
 Jefferson County Community College
 1000 University Avenue, Jefferson County, KY 40301
 ACT, the publisher of both the ASSET and CAAP tests, is located at:
 ACT, 1701 N. Lincoln Avenue, Suite 100
 Itasca, IL 60143-3000

This article is adapted from Gamson and Paulsen, "Inventories of Good Practice," AAHE Bulletin, Vol. 42/No. 3.

"Seven Principles" of good teaching are assessed in faculty self-inventory

How can teachers focus their efforts to improve instruction and student performance? A self-administered inventory of teaching practices is available to assist faculty in addressing this question. Arthur Chickering, Zelda Gamson and Louis Barsi developed the assessment tool, basing it upon seven principles anchored in decades of research about teaching, learning, and the college experience.

The Seven Principles for Good Practice in Undergraduate Education are predicated on the belief

that real improvement in education rests with individual faculty members who wish to evaluate the teaching strategies they use in the classroom. The self-administered inventory is a reflective tool that can promote good thinking and discussions about the teaching/learning process.

Representative items from the faculty inventory are given below each principle. For each item, a teacher chooses one of the following: *Very Often, Often, Occasionally, Rarely or Does Not Apply*.

Good practice in undergraduate education:

1. encourages student-faculty contact

- I know my students by name by the end of the first two weeks of the term.

- I serve as a mentor or informal advisor to students

2. encourages cooperation among students

- I encourage my students to prepare together for classes and exams

- I create 'learning communities' study groups, or project teams within my courses

3. encourages active learning

- I encourage students to challenge my ideas, the ideas of other students, or those presented in readings or other course materials

- I give my students concrete, real-life situations to analyze

4. gives prompt feedback

- I return exams and papers within a week

- I give my students a pre-test at the beginning of each course

5. emphasizes time on task

- I clearly communicate the minimum amount of time students should spend preparing for classes

- If students miss my classes, I require them to make up lost work

6. communicates high expectations

- I make clear my expectations

Q&A is a regular feature addressing questions asked of assessment by faculty, staff or administrators here at JCC or in assessment periodicals and conferences. Send your correspondence to Bill Strohaber, JM148.

Q & A

Q

What happens when a class scheduled to give the CAAP does not participate?

A

Occasionally a conflict with a special presentation or a scheduled event prohibits a faculty member from conducting a CAAP assessment. Such random events do not compromise the sampling methodology, since the likelihood of that occurrence happening again is quite remote. If, however, a teacher regularly withdraws his or her cooperation from the CAAP program, then a potentially serious bias is introduced. For example, if technology classes are not available under the new OE/OE format, then technology students will be under-represented in the data. Or if students in advanced courses in any department are deliberately ignored, the scoring in CAAP modules testing academic achievement in those departments will suffer. Since the classes that are selected are chosen as randomly as possible, any deviation introduces serious consequences for the assessment program. The class time used for CAAP is not lightly regarded, but it is a cost we must pay for a means of measuring student achievement across the entire system.

Q

Is the assessment program costly to the college?

A

Since 1990 the college administration has committed over \$20,000 yearly to assessment. This amounts to about one percent of the institutional budget. It is used to pay for CAAP testing, professional development functions, and for support of faculty engaged in developing assessment procedures within courses and departments throughout the college.

orally and in writing at the beginning of each course

- I encourage students to write a letter

7. respects diverse talents and ways of learning.

• I select readings and design activities to address a broad spectrum of students

• I try to find out about my students' learning styles, interests, or backgrounds at the beginning of each course

Ten items accompany each principle. Free copies of the *Inventories of Good Practice* available from The Johnson Foundation, Inc., Processing Center, PO Box 17305, Milwaukee, WI 53217.

ASSET & CAAP

one or more deciles lower on the CAAP than on the ASSET. If a student's ASSET score places her in the third decile and subsequently she scores in the fifth decile on the CAAP test, she would be located in the upper right area of the chart.

The interpretation of the chart is straightforward. The larger the proportion of students above the major diagonal, the greater the evidence of improvement in student academic achievement. Thirty-three percent of our students improved in reading from ASSET to CAAP, and 33% improved in mathematics. Students whose rankings did not change appear in the major diagonal in both the reading (29%) and math (22%) charts. The remaining students show a decline in decile rankings from ASSET to CAAP, with 38% declining in reading and 45% declining in math.

Because the decile categories are based upon a reference group comprising both public and private 2-year and 4-year colleges from across the nation, it is not surprising that the largest groupings of JCC students are at the lower ranges of decile rankings (note the large group of students in the top left portion of the charts.) The reason for this is that 4-year public and private colleges



'Go forth and multiply' might be an appropriate name for this technique in a math class, but in general I would call it 'Go forth and teach.' The technique, which I tried for the first time last semester, would work equally well as a classroom activity or as a group assessment tool. As an assessment activity, each group was now given an assignment involving all three tasks. I found mastery of the topic, based on the outcome of these assignments, to be as good or better than mastery had been previously when I had lectured and then given the same assignment. I also analyzed the results of my next exam, comparing individual performance on this topic to work performance in past classes. Again, I found the results to be slightly better using the 'Go out and teach' technique. Students also reacted well to the process, commenting to me they found it enjoyable.

The class was split into groups of three for my purpose. Each student in these groups was assigned a different letter i.e., A, B, or C. At this point, new groups formed with all A's meeting together, and likewise all B's and all C's. Each group had a different assignment. I also analyzed the results of my next exam, comparing individual performance on this topic to work performance in past classes. Again, I found the results to be slightly better using the 'Go out and teach' technique. Students also reacted well to the process, commenting to me they found it enjoyable.

At this point the original group/team technique. Students also reacted well to the process, commenting to me they found it enjoyable.

included in the reference group have more selective admissions practices than JCC's open-door policy. In the future, ACT intends to create additional reference groups that would allow JCC scores to be compared against a reference group made up of other 2-year public institutions.

These findings allow us to examine progress over time, a true longitudinal research design. If the content of the ASSET math and reading tests are as parallel to the CAAP math and reading modules as ACT claims, the changes in ranking from one test to another ought to indicate our success in promoting math and reading achievement throughout JCC's curriculum.

This feature is an analysis of JCC CAAP student outcomes data. This information is drawn from the 1991-94 fall semesters.

Student scores in CAAP are similar to national averages

JCC freshmen and sophomores exhibit some fairly predictable patterns of academic achievement in their CAAP scores over the last four fall semesters. Students who identify themselves as freshmen generally score somewhat lower in each subject area than self-identified sophomores. Only in 1994 did freshmen scores equal or exceed sophomore scores in math and science reasoning.

The most dramatic change in scores occurred in the science reasoning CAAP module. 1994 scores of both freshmen and sophomores dropped from 1993 levels, and the sophomore change is significant. In contrast, scores from 1991 to 1993 show gradual improvement. Further analysis of the data may reveal a possible explanation for the score reversal.

The charts also display the average score produced over the last four years by all 2-year public college students who took CAAP. Both freshman and sophomore scores in each subject area are represented by the horizontal line. ACT reports the average scores for each CAAP module as the aggregate of all four years, making a graphic representation of

each year's average impossible to reproduce.

In comparison to these national averages, JCC freshmen are somewhat lower in their academic achievement. JCC sophomores, on the other hand, are generally at or slightly above the national average in each module. The improvement of JCC students from freshmen to sophomores is remarkable.

Typically in a semester in which the CAAP is given at JCC, 100 to 175 students complete any one of the modules. These are sufficient numbers to allow some generalizations and analysis of patterns of evidence. However care must be exercised in the interpretation of differences between subgroups. Unless a pattern of differences persists in these smaller groups over a three to five year period, the conclusions based upon small differences can be misleading.

The evidence to date supports the conclusion that the longer students remain at JCC, the more proficient they are in the academic skills measured by CAAP. Moreover, the impression gained from the comparison of JCC and national data is reassuring: JCC student success is similar to the success level of other 2-year public college students in regards to their CAAP scores. • •

