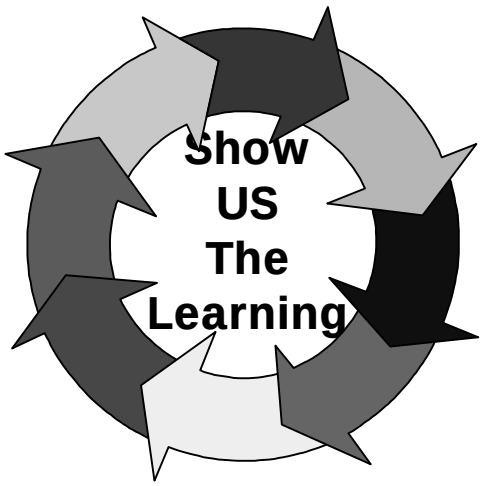

Student Outcomes Assessment Committee's Summary of Three Years of Institutional Level General Education Assessment 1998 – 2001

During the past three years the Student Outcomes Assessment Committee (SOAC) with your support has conducted six rounds of general education assessment using CAAP. This institution-wide effort is one part of faculty activities along with classroom assessments, discipline multi-section and program assessments.

The design of institution-wide general education assessment is based on two types of indicators of the development of general education skills that are collected through this testing. Using five ACT-CAAP tests of general education skills[1] in a stratified proportionate random selection of course sections, the development of skills in mathematics, communication, and analysis are examined. Included with the CAAP testing are four survey questions that focus on development of values and beliefs.

Responses from 3322 students in 168 course-sections are combined with enrollment and performance information from the COD Student Tracking System to build a database for analysis. Based on this combination of data, each case is classified as to the level of educational achievement at the time of testing (entering-persisting first-year student, mid-studies, and completing sophomores).

The student self-reports from the survey questions indicate that 54% rank transferring to a college or university as their most important goal. An additional 31% rank earning an Associate Degree as most important and 5% rank earning a certificate as most important. Students spend an average of 4.5 hours per week studying for their average class, with freshmen reporting 3.9 hours per class per week, compared with 5 hours among completing sophomores.

It is through the cooperation of all faculty that this type of testing-sampling can be used as a basis for reliable generalizations about all of our students. We thank those of you who have been called upon and cooperated with us and look forward to working with others as random rotation targets your courses.

General Education Development

The following statement of general education, accepted by the faculty, appears in our catalogue.

> **The aims of general education are to enable students to understand and appreciate their culture and environment; to develop a system of personal values based on accepted ethics that lead to civic and social responsibility; and to attain the skills in analysis, communication, quantification, and synthesis necessary for further growth as a lifespan-learner and productive member of society.**

This statement can be separated into the seven statements that follow. These statements are the focus for the SOAC's institutional assessment effort. SOAC members accepted that the CAAP subject-area tests covered only a core of the outcomes targeted in this goal statement. The challenge of how to assess other areas of general education and the availability of locally-

[1] Mathematics, Reading, Writing Skills (a multiple choice format), Essay writing (a writing sample use of which was suspended in fall 2000), Science Reasoning, Critical Thinking

designed questions on the CAAP form supported collecting a brief survey from a representative random sample. Starting with the 2000 cycle of assessment, three of the locally designed questions focus inquiry on enabling students to understand and appreciate their culture and environment; and their development of a system of personal values based on accepted ethics that lead to civic and social responsibility. During the past year a fourth survey question focused on students' contact and appraisal of advising and counseling services. While there may be more authentic measures than self-report, at this time the only indicators available for consideration of these general education areas are self-report responses.

The aims of general education are to enable students to:

1. **Understand and appreciate their culture**
   Among completing sophomores, 33.7% report their College of DuPage courses have meaningful or significant impact on their **cultural appreciation**. This contrasts with 18.5% to 20.6% among entering first-year and mid-studies students. Although only about one-third of the students report significant impact, the change indicates a significant increase in students' evaluation through accumulating courses.

2. **Understand and appreciate their environment**
   Among completing sophomores, 30.5% report their courses have meaningful or significant impact on their **environmental appreciation**. This ranking is substantially higher than the 16.5% ratings among mid-studies students but lower than the 33.6% ranking among entering first-year students. While the percent ranking at the top two levels does not show substantial change, substantial change does occur in the lower rankings of the table. The percent choosing the lowest category, "No Impact" drops from 28% to 13% as the "Little Impact" categories increases from 15% to 26%.

3. **Develop a system of personal values based on accepted ethics that lead to civic and social responsibility**
   Among completing sophomores, 39.2% report their courses have meaningful or significant impact on their developing a system of personal values based on accepted ethics that lead to civic and social responsibility. This response contrasts with rankings of 29.5% among entering first-year and 21.7% among mid-studies students. The U-shaped reports of impacts may reflect first flush of exposure to college-level thinking, followed by mid-studies uncertainty and, eventually, beginning development of more complex ethical positions.

In each of these three assessments, the restrictive nature of self-reports needs to be considered. These data may provide a beginning baseline for our consideration and discussion.

The general education goals 4 through 6 are skills areas where direct indications of student proficiency were obtained using the ACT-CAAP testing over the past three years. The COD averages are for selected cohorts of persisting first-year students, mid-studies students and completing sophomores. The averages referenced for comparison are those most recently published as the *Fall, 2000 CAAP User Norms* for freshmen and sophomores at 2-year public colleges and 4-year public colleges and universities. In this report they are referred to as "national averages."

4. **Attain skills in analysis**
   Assessment of skills development in analysis may be inferred from two of the subject area tests in the CAAP battery: critical thinking and scientific reasoning. Results from the **Critical Thinking** test indicate that our first-year students are similar to other 2-year students, both of whom are lower in skills than 4-year students. On average our completing sophomores demonstrate significantly higher critical thinking skills than our first-year students ($t = -2.763$, sig. .006). The COD sophomore average is similar to 2-year sophomores and is not statistically different from the 4-year sophomore average.

Results from the **Scientific Reasoning** test indicate that our first-year students are similar to other 2-year students, both of whom are lower in skills than 4-year students. On average our completing sophomores have improved significantly (t= -3.950, sig. .000). The COD sophomore average is similar to 2-year sophomores but significantly lower than 4-year sophomores.

Thus, as indicated by these two area-tests, in the area of developing general education skills in analysis the students attending COD are in-step with other 2-year public college students.

5. Attain skills in communications

The broad goal of developing skills in communication is frequently divided into four more specific skills that are described by two dimensions. One of these dimensions is the format dimension of written and oral; the second dimension is the modality of receiving or producing. The four skills are reading, writing, listening, and speaking. CAAP skill-area tests cover two of these. In the area of writing skills, CAAP has both a multiple-choice instrument and a writing sample essay instrument. In the area of reading, CAAP examines college level skills[2] in both the humanities and social sciences. The current general education skill development assessments do not include measures focused on listening nor on speaking skills.

Results from college **Reading** indicate that our first-year students are similar to other 2-year students both of who are lower in skills than 4-year students. On average our completing sophomores have significantly improved (t= -2.21, sig. .029) from first-year averages. The COD sophomore average is similar to both 2-year and 4-year sophomores

Results from the **Writing Skills** tests indicate that our first-year students are similar to other 2-year students both of who are lower in skills than 4-year students. On average our completing sophomores have significantly improved (t= -2.659, sig. .009). The COD sophomore average is similar to 2-year sophomores but still significantly lower than 4-year sophomores.

Results from the **Essay** test (a writing sample conducted from 1998 to 2000) indicate that our first-year students are similar to the 2-year college average both of who are higher in skills than the 4-year student average. On average our sophomores demonstrated no significant change (t= -.266, sig. .791). The COD completing sophomore average was significantly higher than the 2-year college average and is not statistically different from the 4-year sophomore average. Use of this test was suspended in the fall of 2000 after it was determined that we were at level and that the test lacked sensitivity to changes in students skills. SOAC will be working to develop an alternative, effective writing sample instrument.

6. Attain skills in quantification – mathematics

General education skills development in quantification is most directly linked to outcomes measured by the **Mathematics** CAAP area-test. Results indicate that our first-year students start out similar to other 2-year public college students, both of whom are lower in skills than 4-year public college students. On average our completing sophomores have improved their math skills significantly (t= -3.57, sig. .000). The COD sophomore average is significantly higher than 2-year sophomores and similar to that of sophomores at 4-year public colleges.

Student Outcomes Assessment has yet to develop an indicator measure for the seventh general education focus.

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[2] "The CAAP reading test measures reading comprehension as product of skill in referring, reasoning, and generalizing." These are skills generally developed in content courses by students as part of post-high school studies.

7. **Attain skills in synthesis**
   Assessment of the seventh general education outcome requires gestalt approaches that have not yet been designed nor implemented. Some indication of student, employer, and community satisfaction in this area is possible from other assessments including student satisfaction surveys and community needs studies.

In summary:

The bottom line conclusion justified by these observations is that College of DuPage students are similar to other 2-year public community college students. However, it may be worth discussing whether being "average" is a sufficient goal for College of DuPage. Recognizing and implementing some classroom changes in pedagogy can increase our students' general education skills. Such development should focus on ways in which faculty can improve subject-area learning through supporting general education skills development across the curriculum. Improving general education skills development is a key to increasing student understanding and knowledge of content area and for the mid-range of our student body, that development is best accomplished within the context of their subject-area courses.

The complete report of research analysis will be available on the Students Outcomes Assessment web site at www.cod.edu/outcomes or from members of the SOAC committee. This research utilized four approaches. First, a summary of self-report and demographic information was compiled. Second, our students were compared with national averages from ACT for both freshmen and sophomores. In a third examination the students classified as entering freshmen were compared to completing sophomores. The fourth approach utilized as many cases as possible to model the process of acquiring each of the general education skills. The report provides the background for the conclusions summarized above as well as including a summary of findings focused on advising and counseling.

Looking at our assessment efforts

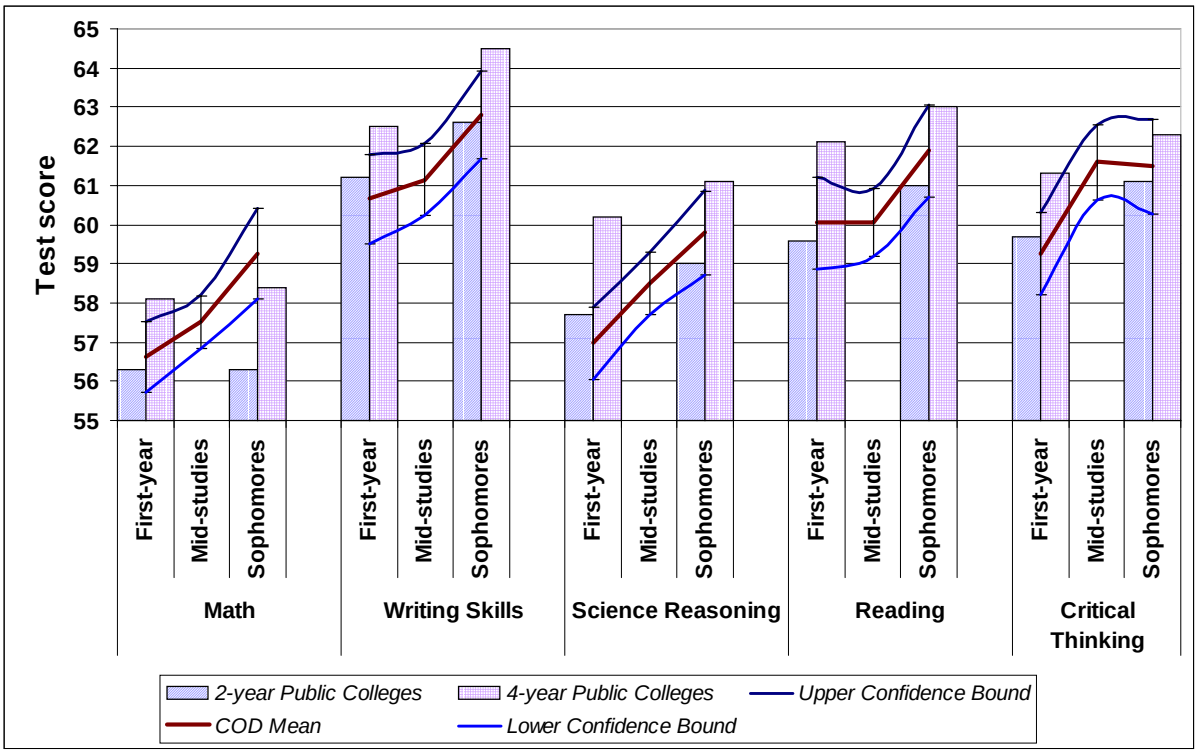
Whenever learning outcomes are examined with low stakes testing, such as the CAAP testing at COD, one issue of concern in student outcomes assessment is the impact of participation, motivation and effort by students on the measured outcomes. The sampling of class sections used to construct a random sampling, the testing procedure of unannounced testing and the high level of faculty participation and cooperation results in very high rates of participation. This assures that the relatively small number of cases is representative of the larger college community. Based on our three years' experience and discussions with numerous other college representatives, we have a successful program because of our faculty cooperation. Our program has been labeled as "one of the few testing programs that works" by several national leaders in the assessment effort. A major part of this success is your active support in working with students in preparation for testing. Your willingness to be present in the classroom during testing, your encouraging students to participate, and informing them that their efforts are important to us all encourage strong student effort. During the past three years 83.4% of the students report giving effort in the top two rankings ("moderate effort" or "trying their best" at the test). This is a substantially higher level of effort than found at other schools. While funding from the college administration has made these assessment efforts possible, we the faculty have made them a success.

Thank you.

Student Outcomes Assessment Committee

COD and national averages

		N	Mean	Std. Deviation	95% Confidence Interval for the Mean		2-year Public Colleges	4-year Public Colleges
					Lower Bound	Upper Bound		
Math	Entering Freshmen	81	56.62	4.12	55.71	57.53	56.3	58.1
	Mid Freshmen-Sophomore	156	57.52	4.30	56.84	58.20		
	Completing Sophomores	78	59.24	5.12	58.09	60.40	56.3	58.4
Writing Skills	Entering Freshmen	81	60.65	5.19	59.50	61.80	61.2	62.5
	Mid Freshmen-Sophomore	137	61.15	5.40	60.24	62.07		
	Completing Sophomores	93	62.80	5.42	61.68	63.91	62.6	64.5
Science Reasoning	Entering Freshmen	78	56.97	4.10	56.05	57.89	57.7	60.2
	Mid Freshmen-Sophomore	134	58.49	4.65	57.70	59.29		
	Completing Sophomores	76	59.79	4.71	58.71	60.87	59.0	61.1
Reading	Entering Freshmen	81	60.04	5.33	58.86	61.22	59.6	62.1
	Mid Freshmen-Sophomore	147	60.06	5.32	59.19	60.93		
	Completing Sophomores	83	61.88	5.34	60.71	63.05	61.0	63.0
Critical Thinking	Entering Freshmen	94	59.27	5.06	58.23	60.30	59.7	61.3
	Mid Freshmen-Sophomore	140	61.59	5.66	60.65	62.54		
	Completing Sophomores	87	61.48	5.68	60.27	62.69	61.1	62.3
Essay	Entering Freshmen	71	3.28	0.64	3.13	3.43	3.2	3.0
	Mid Freshmen-Sophomore	135	3.23	0.66	3.12	3.34		
	Completing Sophomores	49	3.31	0.69	3.11	3.51	3.1	3.3



Courses impact on cultural appreciation

Educational Level		No Impact	Little Impact	Moderate Impact	Meaningful Impact	Significant Impact	Total
Entering First-year	Count	35	29	24	15	5	108
	% within Education	32.4%	26.9%	22.2%	13.9%	4.6%	100.0%
Mid-studies	Count	85	66	96	52	12	311
	% within Education	27.3%	21.2%	30.9%	16.7%	3.9%	100.0%
Completing Sophomores	Count	45	53	75	63	25	261
	% within Education	17.2%	20.3%	28.7%	24.1%	9.6%	100.0%
Total	Count	165	148	195	130	42	680
	% within Education	24.3%	21.8%	28.7%	19.1%	6.2%	100.0%

Courses impact on environmental appreciation

Educational Level		No Impact	Little Impact	Moderate Impact	Meaningful Impact	Significant Impact	Total
Entering First-year	Count	33	18	28	35	5	119
	% within Education	27.7%	15.1%	23.5%	29.4%	4.2%	100.0%
Mid-studies	Count	74	79	106	41	10	310
		23.9%	25.5%	34.2%	13.2%	3.2%	100.0%
Completing Sophomores	Count	33	68	79	63	17	260
	% within Education	12.7%	26.2%	30.4%	24.2%	6.5%	100.0%
Total	Count	140	165	213	139	32	689
	% within Education	20.3%	23.9%	30.9%	20.2%	4.6%	100.0%

Courses impact on development of personal values based on ethics

		No Impact	Little Impact	Moderate Impact	Meaningful Impact	Significant Impact	Total
Entering First-year	Count	32	22	37	25	13	129
	% within Education	24.8%	17.1%	28.7%	19.4%	10.1%	100.0%
Mid-studies	Count	57	73	124	56	14	324
	% within Education	17.6%	22.5%	38.3%	17.3%	4.3%	100.0%
Completing Sophomores	Count	37	45	75	68	33	258
	% within Education	14.3%	17.4%	29.1%	26.4%	12.8%	100.0%
Total	Count	126	140	236	149	60	711
	% within Education	17.7%	19.7%	33.2%	21.0%	8.4%	100.0%

Reported advising and counseling contact and value

	Frequency	Percent	Valid Percent
Not enough contact to determine	280	28.6	29.4
Minimal, not helpful	142	14.5	14.9
Minimal, helpful	218	22.3	22.9
Minimal, very helpful	36	3.7	3.8
Moderate, not helpful	37	3.8	3.9
Moderate, helpful	137	14.0	14.4
Moderate, very helpful	38	3.9	4.0
Substantial, not helpful	17	1.7	1.8
Substantial, helpful	32	3.3	3.4
Substantial, very helpful	16	1.6	1.7
Total	953	97.3	100.0
Missing	26	2.7	
	979	100.0	