GENERAL EDUCATION ASSESSMENT COMMITTEE ANNUAL REPORT, 2008

2008 General Education Assessment Committee Membership

Jon Comer (Geography), Chair; Greg Wilber (Civil and Environmental Engineering); John Gelder (Chemistry); Frances Griffin (Business Management); Deb Jordan (Leisure Studies); Ed Walkiewicz (English); Pam Bowers (ex officio, University Assessment and Testing).

General Education Assessment Committee History

Assessment of OSU's general education program is required by the Higher Learning Commission of the North Central Association (HLC, OSU's accrediting body) and by the Oklahoma State Regents for Higher Education. OSU's general education assessment efforts have been motivated by these requirements. The Assessment Council and Office of University Assessment and Testing formed a faculty General Education Assessment Task Force in May 2000 for the purpose of developing and implementing a new plan to assess the effectiveness of OSU's general education program. Although general education and "mid-level" assessment methods such as standardized tests and surveys had been conducted intermittently at OSU since 1993, no sustainable approach to evaluating the general education curriculum had been established. The task force formed in 2000 was the first group of OSU faculty members who were paid to work on this university-wide assessment project and marked a renewed commitment to general education assessment at OSU.

Following the assessment standard of articulating desired student outcomes first, the Task Force started in 2000 by revising OSU's *Criteria and Goals for General Education Courses* document and identifying "assessable" outcomes for the general education program. After studying general education assessment practices at other institutions, the task group developed the following guidelines for effective and sustainable general education assessment for OSU:

- the process must not be aimed at individual faculty members or departments,
- the process should be led by faculty members, and faculty participation should be voluntary,
- the process should use student work already produced in courses, and
- the process should assess all undergraduates, including transfer students, because general education outcomes describe qualities expected for all OSU graduates.

After summer-long study and discussion, the 2000 task group agreed to initiate two assessment methods to evaluate general education that were consistent with these guidelines: institutional portfolios and a course-content database. Institutional portfolios directly assess student achievement of the expected learning outcomes for the general education program, and the course database evaluates how each general education course contributes to student achievement of those articulated outcomes. These methods were implemented in 2001.

In 2003, the Assessment Council and General Education Advisory Council approved the task force's name change to the General Education Assessment Committee. The Committee is charged with continuing to develop and implement general education assessment and reports to the Assessment Council and General Education Advisory Council; membership in these committees is intentionally overlapped. Committee members serve rotating 3-year terms, are extensively involved in undergraduate teaching at OSU, represent a range of disciplines, and are paid summer stipends for their work on general education assessment.

Institutional Portfolios. The Committee has developed institutional portfolios to assess students' written communication skills (data collection in 2001, 2002, 2003, 2004, 2005, 2006, and 2008), math problem solving skills (data collection in 2002, 2003 and 2005), science problem solving skills (data collection in 2003, 2004, 2005, and 2007), critical thinking (data collection in 2005, 2006, 2007, and 2008), and diversity (data collection in 2007 and 2008).

Separate portfolios are developed to evaluate each general education learner goal, and each portfolio includes students' work from course assignments collected throughout the undergraduate curriculum. Faculty members (including Committee members and additional faculty members involved in undergraduate teaching) work in groups to evaluate the work in each portfolio and assess student achievement relative to the learner goal that is being assessed by using standardized scoring rubrics. The results provide a measure of the extent to which students are achieving OSU's general education learning goals. The Committee plans to continue to develop institutional portfolios to assess the learner goals for general education as described in the *Criteria and Goals for General Education Courses*.

General Education Course Database. The General Education Course Database is a tool for evaluating how each general education course is aligned with the overall expected learning outcomes for the general education program as a whole. Instructors are asked to submit their course information online via a web-based form, and the General Education Advisory Council reviews the submitted information during regular course reviews. The database form requests information about what general education learning goals are associated with the course and how the course provides students with opportunities to achieve those learning goals. Instructors are also asked to describe how student achievement of those goals is assessed within the course. The database provides a useful tool for holistically evaluating general education course offerings and the extent to which the overall general education goals are targeted across the curriculum.

In addition to these two primary assessment tools, student surveys such as the National Survey of Student Engagement and OSU Alumni Surveys contribute to the general education assessment process and are considered in reviewing general education assessment results.

Status of Committee Goals for 2007-08

The Committee met in Fall 2007 to determine committee membership for work to be completed in Summer 2008. One new member, Deb Jordan, joined the committee. Jon Comer agreed to serve as chair for 2007-08.

A. The committee continued the institutional portfolio for evaluating students' critical thinking skills. Two portfolio-scoring groups, consisting of six faculty members (two Committee members and four additional faculty reviewers), evaluated the critical thinking portfolio. These groups of reviewers evaluated a total of 167 samples of student work demonstrating critical thinking skills.

B. The committee continued the institutional portfolio for evaluating students' written communication skills. Two portfolio-scoring groups, consisting of six faculty members (two Committee members and four additional faculty reviewers), evaluated the written communication portfolio. This group of reviewers evaluated 183 samples of student work in this portfolio.

C. The committee continued the institutional portfolio for evaluating students' knowledge, skills and attitudes regarding diversity. One portfolio-scoring group, consisting of three faculty members (two Committee members and one additional faculty reviewer), evaluated the

diversity portfolio. This group of reviewers evaluated 80 samples of student work in this portfolio.

D. A joint meeting of the General Education Assessment Committee, the Assessment Council and the General Education Advisory Council was held on March 7, 2008 to conduct a review of General Education Assessment. This purpose of this meeting was to review the assessment process, and results of assessments, and recommend action for improvement, if warranted. Minutes from the meeting are included in the next section of this report. Recommendations will be considered by the committee in 2008-09.

Minutes from Joint Meeting of Assessment Council, General Education Assessment Committee and General Education Advisory Council to Review General Education Assessment

March 7, 2008

Present (*Indicates membership in more than one of the three groups):

Assessment Council: Bowers*, Comer*, Damron, Davis, Gates*, Lacy, Ownbey, Payton, Paustenbaugh, Rohrs, Weir, Wilber*

General Education Advisory Council: Bowers*, Comer*, Gates*, Walkiewicz*, White

General Education Assessment Committee: Bowers*, Comer*, Gelder, Walkiewicz*, Wilber*

History / Purpose of the Joint Meeting

The institutional portfolio assessment method was implemented by a faculty task force (later renamed the general education assessment committee) in 2001 for assessment of general education learning goals. Since 2001, institutional portfolios have been established for writing, science problem-solving, analytical reasoning, critical thinking, and diversity. The general education assessment committee is charged with implementing the assessments, reporting results and providing recommendations to the Assessment Council (AC) and the General Education Advisory Council (GEAC). In 2006, an annual joint meeting of these three groups was established to provide a more systematic process for considering assessment results and planning action for improvement.

The assessment cycle includes evaluating the effectiveness of methods, as well as considering the results of the assessment. Although the institutional portfolio assessment method has proven to be sustainable over time and is supported by many faculty, there are some aspects of the method that need to be improved. The most important have been identified as:

- improvement in the process to identify and collect a reasonably representative sample of student work for each assessment, and
- improvement in identifying and implementing action items to improve students' achievement of the learning goals.

The assessment process of "mapping" the curriculum to identify where students are expected to obtain and practice the expected knowledge and skills is more difficult for institutional level learning goals than for program level learning goals. The general education course designation system provides the logical foundation for this mapping, even though it is expected that students have opportunities to advance their achievement of general education learning goals in many courses in addition to those with general education designations.

General education learning goals are those learning outcomes that are expected of all graduates of the institution. Program learning outcomes are those learning goals that are more content-specific to the discipline. However, many degree program faculty feel strongly enough about the importance of effective writing and critical thinking skills that they identify these learning outcomes as primary learning goals for graduates of their programs. In some cases, the criteria that define the learning goal within a program may be different than the criteria for a similar goal at the institutional level. For example, some programs may expect students to achieve a specific kind of writing competence – such as technical writing, or academic writing, that may have different characteristics than those identified for the general education learning goal regarding writing.

Many of those involved in the discussion see similarities in the problems experienced in general education assessment and program outcomes assessment. In both cases, it is often difficult to engage

faculty members in meaningful participation. In both cases, faculty members have indicated reluctance to participate for various reasons, including that they have too many demands on their time, do not see the need for it or believe they are already doing it in other ways, and/or do not perceive participation in assessment to be highly regarded in the university system, as evidenced by lack of reward and/or punishment for participation. It may also be the case that many faculty are not necessarily opposed to assessment, but may not be well informed about the process and, in the case of general education assessment, may not believe it has anything to do with them.

Recommendations for Immediate Implementation

The recommendations for improvement discussed today essentially focus on changing the culture at OSU regarding assessment. There is a need to increase the "institutionalization" of assessment, by incorporating it into existing reward systems and creating more systematic accountability for participation and action on results.

Improving the procedures to become more systematic in collection of written artifacts for general education assessment is a needed first step. This improvement will also facilitate taking action on recommendations related to students' achievement of specific learning goals.

Regarding development of a systematic process for collection of general education artifacts, the following steps were suggested. These steps can be implemented immediately upon agreement with GEAC and the Provost's office. The responsible unit is indicated in parentheses.

- (UAT) Collect data via assistance from Institutional Research and Information Management (IRIM) on classifications and majors of students in all general education courses for a reasonable period of time in the recent past (i.e., 1-2-3 years). Use these data to determine general education courses to target at the 1000-, 2000-, 3000-, and 4000-levels in order to secure both a representative cross section of majors, and an acceptable distribution of classifications (noting that many juniors or seniors may take certain 1000- and 2000-level general education courses).

- (UAT / Academic Affairs) Engage Provost Strathe in working with the Deans so they understand the importance of, and the Provost's expectation that, faculty members teaching courses with general education designations will provide written artifacts when asked to do so. In addition, the understanding should include that Deans educate the unit (school/department) heads regarding their expectation that faculty submit artifacts as requested.

- (GEAC) Include a "statement of understanding" in the General Education database process that requires the person submitting a course for general education designation approval to indicate their understanding that they are expected to submit artifacts as requested. In addition, the person requesting the designation should be asked to identify the assignment that could be submitted from that course for general education assessment. The "statement of understanding" should include that academic units (departments/programs) seeking general education designations understand that failure to provide requested artifacts for assessment purposes may result in losing the general education designation for the course.

The following bullet points are intended to capture the intentions/recommendations of the group and restate in more specific terms. The following specific actions would implement the intentions of the group to require greater accountability and participation:

- (GEAC / Academic Affairs) A notice of this policy should be sent from the Provost to all departments currently teaching courses with general education designations, and this notification should then be sent each time a new course designation is approved or renewed.

- (UAT) Develop a system that results in systematically sending an e-mail notification at an appropriately identified time to the instructor of each general education designated course (copying the department/school head and dean where the course is taught). Remind the

instructor that the department/school/college agreed that the instructor of this course will submit written artifacts as requested and inform them of the process for submission. (Encourage faculty to have students submit assignments to them electronically so that the process of submitting artifacts is easier for both faculty and UAT.)

- (UAT) If the instructor is not responsive to requests, follow-up by contacting the unit head, and copying the dean, to let them know that the general education designation for the identified course is in jeopardy if artifacts are not provided for assessment as requested.

- (GEAC) If the department head and/or dean are also unresponsive, GEAC should notify the department, copying the dean, that the general education course designation will be dropped from the course, effective the next semester, until a plan for participation in assessment is provided to GEAC by the department head/dean.

UAT will work with GEAC and the Provost's office to obtain a response to these recommendations.

Pending Recommendations

The following broader initiatives to improve both general education assessment and program outcomes assessment were also suggested in the discussion. These recommendations were not fully developed regarding specific actions to be taken, and will be put on the next Assessment Council agenda for further discussion and planning.

- (AC / UAT / Academic Affairs) Include assessment information and involvement of UAT director and/or representative faculty (Assessment Council members) in communicating with faculty at critical points including during the New Faculty Orientation sessions. Reinforce the importance of assessment and faculty members' engagement in assessment at multiple times in various ways in an ongoing process using an intentionally planned set of procedures.

- (Assessment Council / UAT) Develop action items and processes to assist programs with making accreditation and assessment processes overlap/complement/match each other, to provide incentive for participation in assessment.

- It was suggested that it might be helpful to develop incentives, as well as accountability practices, for programs and individual faculty to engage in assessment. No conclusions were reached as to the type of incentives that would be most helpful, or whether or not incentives would be an effective mechanism for obtaining systematic participation in general education assessment. An example of an accountability practice is the possibility of a program losing a general education designation if they are not accountable to submit written artifacts consistent with their agreement when they applied for the designation. An example of an incentive is an annual award at the institutional level with visible institutional recognition including recognition of the entire unit at the fall university convocation, visibility on the OSU website in a prominent location, notification of any accrediting organization associated with the program of their award status on the OSU campus, etc.

Assessment of Critical Thinking Skills

2008 collection of critical thinking samples

The Office of University Assessment and Testing supervised the collection of student artifacts for the Critical Thinking Institutional Portfolio in Spring 2008. Instructors from the following undergraduate courses contributed random samples of student work to the portfolio:

Course No.	Course Name	General Education Designation (if any)	Number of artifacts randomly collected from one assignment	Number of artifacts reviewed	Number of artifacts used in data analysis
ZOOL 3104	Invertebrate Zoology		20	13	13
CHEM 1314	General Chemistry	L, N	40	26	13
CIVE 3813	Environmental Engineering Science		18	13	13
ENGL 3190	Ethnicity and the City		20	13	13
MGMT 4613	International Management	I	20	13	13
NSCI 4643	Critical Issues in Nutrition and Health Care		11	11	11
PHIL 1313	Logical and Critical Thinking		36	26	26
HDFS 4533	Critical Issues in HDFS		16	13	13
PHIL 3833	Biomedical Ethics	H	20	13	13
PHIL 1213	Philosophies of Life	H	18	13	11
ENGR 1111	Introduction to Engineering		20	13	13
	Total Number of Critical Thinking Artifacts (samples)		**239**	**167**	**152**

*The number of artifacts reviewed in 2008 was less than the number collected. More artifacts were collected than could be evaluated by the reviewers, so those artifacts were selected that reviewers found to be best suited for the assessment (n=167).

Artifacts selected for the Institutional Portfolio were coded and all identifying information was removed from the samples. Demographic data were collected for each artifact using the OSU student database; these data were collected for analysis purposes only and the information cannot be used to identify an individual. The student demographic information associated with the samples was not shared with reviewers prior to the reviews.

2008 critical thinking portfolio reviews

Six faculty reviewers for the critical thinking skills institutional portfolio conducted this assessment in June and July 2008. Portfolio reviewers included Greg Wilber (Civil and Environmental Engineering), Ed Walkiewicz (English), John Gelder (Chemistry), Doren Recker (Philosophy), Karen High (Chemical Engineering), and Jeff Hattey (Plant and Soil Sciences). Initially, the reviewers met for two training sessions where they received background information on the procedure and practiced scoring artifacts using the critical thinking rubric developed for this purpose in 2004. Then, reviewers independently evaluated a set of training artifacts using the critical thinking rubric. During these two initial sessions, reviewers discussed questions and concerns regarding the use of the rubric, discussed scores given to samples of student work, and developed a common approach for evaluating student critical thinking samples.

As with past groups of reviewers, by the end of the training sessions with all reviewers present, the reviewers were scoring fairly consistently with little variation among individual members. In addition to scoring several artifacts from the previous year, a few artifacts from the 2008 sample were scored during the training session. The scoring committee then divided into two sub-groups, which undertook to score

84 and 83 artifacts. Scoring was done individually, and each sub-group then met to reach consensus scores in cases where there was variation across individual scores (for the same artifact). The final scores were then submitted to the office of University Assessment and Testing for initial interpretation.

Critical thinking skills scores from each review group

Review Group	Artifact Score	Number of Artifacts	Percent of Artifacts
#1 (74 artifacts scored)	1	1	1.4%
	2	20	27%
	3	36	49%
	4	16	22%
	5	0	0%
#2 (77 artifacts scored)	1	0	0%
	2	26	34%
	3	44	57%
	4	7	9.1%
	5	0	0%
Reviewer Training (2 artifacts scored)	1	0	0%
	2	0	0%
	3	1	50%
	4	1	50%
	5	0	0%

Except for those artifacts scored during the training sessions, reviewers scored each artifact independently and then met to develop a consensus overall score for each artifact. Each artifact received an overall, whole-number score from 1 to 5, as well as a sub-score for each rubric component that was determined to be appropriate for the assignment. All artifacts were scored on rubric components 1- 4; other components were only scored if the group agreed they were relevant for the assignment. Reviewers discussed sub-scores and came to agreement (within one point) on each component score.

Learning Outcome: Graduates will be able to critically analyze and solve problems.

	Characteristics **1 -4: Essential Characteristics**	**Level of Achievement**				
		1	2*	3	4**	5
1	**Identification** and/or summary of the **problem/question** at issue.	No identification and/or summary of the problem.		The main question is apparent or implied, but not clearly stated.		The main question and subsidiary, embedded, or implicit aspects of a question are identified and clearly stated.
2	Presentation of the **STUDENT'S OWN perspective and position** as it is important to the analysis of the issue.	The student's own interpretation or position relative to the question is not provided.		The student's own interpretation or position on the question is implied or unclearly stated.		The student's own interpretation or position on the issue is clearly stated.
3	Use of **supporting data/evidence.**	No supporting data, logical argument or evidence is used.		Evidence and logic are used, but source(s) of evidence are not evaluated for accuracy, precision, relevance, and completeness. Inferences of cause and effect are stated, but not completely or entirely accurately. Facts and opinions are stated although not clearly distinguished from value judgments.		Evidence is identified and carefully examined. Source(s) of the evidence are questioned for accuracy, precision, relevance, and completeness. Accurately observes cause and effect. Facts, opinions and arguments are stated and clearly distinguished, and value judgments are acknowledged.
4	Discussion of **conclusions**, implications and consequences.	Conclusions are not provided.		Conclusions are provided without discussion of implications or consequences. Some reflective thought is provided with regards to the assertions.		Conclusions are clearly stated and discussed. Implications and consequences of the conclusion are considered in context, relative to assumptions, and supporting evidence. The student provides reflective thought with regards to the assertions.
5 – 7: Optional Characteristics (evaluated where appropriate)						
5	Consideration of **OTHER salient perspectives and alternate positions** that are important to the analysis of the issue.	Does not acknowledge possible alternate perspectives.		Acknowledges possible alternate perspectives although they are not clearly stated.		Uses alternate perspectives and additional diverse perspectives drawn from outside information.
6	Assessment of the key **assumptions and the validity of the supporting/ background information**.	Does not identify the key assumptions and/or evaluate the given information that underlies the issue.		The key assumption(s) that underlies the issue is clearly stated. Necessary data or other background data is identified but not evaluated for validity, relevance or completeness.		The key assumption that underlies the issue is clearly stated and the validity of the assumption that underlies the issue is assessed. Key data and background information is evaluated for validity and used in a way consistent with this evaluation.
7	Consideration of the influence of the **context** on the issue (including, where appropriate, cultural, social, economic, technological, ethical, political, or personal context).	The problem is not connected to other issues or placed in context.		The context of the question is provided although it is not clearly analyzed. Limited consideration of the audience is provided. Little consideration of other contexts is provided.		The issue is clearly analyzed within the scope and context of the question. An assessment of the audience is provided. Consideration of other pertinent contexts is provided.

* 2 - Exhibits most characteristics of '1' and some characteristics of '3'
** 4 - Exhibits most characteristics of '3' and some characteristics of '5'

***** adapted from Washington State University revised 5-8-08

Student demographics associated with critical thinking skills artifacts, 2005-2008

		2005-07		2008		Years Combined	
		No. of Artifacts	Pct	No. of Artifacts	Pct	No. of Artifacts	Pct
Number of Artifacts	# collected	541	-	384	-	925	-
	# scored	415	-	153	-	568	-
	# used in analysis	411	-	152	-	563	-
Class	Freshman	45	11%	34	22%	79	14%
	Sophomore	49	12%	24	16%	73	13%
	Junior	126	31%	22	15%	148	26%
	Senior	191	46%	72	47%	263	47%
College	CAS	90	22%	46	30%	136	24%
	CASNR	32	7.8%	13	8.6%	45	8.0%
	SSB	48	12%	18	12%	66	12%
	COE	17	4.1%	14	9.2%	31	5.5%
	CEAT	105	26%	29	19%	134	24%
	CHES	116	28%	32	21%	148	26%
	UAS	3	0.7%	0	0%	3	0.5%
Gender	Female	231	56%	85	56%	316	56%
	Male	180	44%	67	44%	247	44%
Admit Type	Regular (A, AR, L)	273	66%	115	76%	388	69%
	Alternative Admit (F)	13	3.2%	3	2.0%	16	2.8%
	Adult Admit (G)	2	0.5%	0	0%	2	0.3%
	"Third Door" Admit (K)	0	0%	0	0%	0	0%
	International (J)	8	1.9%	1	0.7%	9	1.6%
	Transfer (M, MR)	113	27%	32	21%	145	26%
	Other or Blank	2	0.5%	1	0.7%	3	0.5%
ACT	<22	102	30%	21	16%	123	26%
	22 to 24	79	23%	31	23%	110	23%
	25 to 27	81	24%	43	32%	124	26%
	28 to 30	45	13%	27	20%	72	15%
	>30	31	9.2%	13	9.6%	44	9.3%
OSU GPA	<2.0	16	3.9%	9	5.9%	25	4.4%
	2.0 to 2.49	59	14%	13	8.6%	72	13%
	2.50 to 2.99	109	27%	24	16%	133	24%
	3.00 to 3.49	123	30%	51	34%	174	31%
	3.50 to 4.00	103	25%	55	36%	158	28%

Critical thinking scores, 2008

			Score						
			1	**2**	**3**	**4**	**5**	**Avg**	**N**
Overall Scores	Overall	n	1	46	81	24	0	2.84	152
		%	0.7%	30%	53%	16%	0%		
By Class	Freshmen	n	1	11	18	4	0	2.74	34
		%	2.9%	32%	53%	12%	0%		22%
	Sophomores	n	0	5	17	2	0	2.88	24
		%	0%	21%	71%	8.3%	0%		16%
	Juniors	n	0	8	12	2	0	2.73	22
		%	0%	36%	55%	9.1%	0%		15%
	Seniors	n	0	22	34	16	0	2.92	72
		%	0%	31%	47%	22%	0%		47%
By Class (regular admit only)	Freshmen	n	1	11	18	4	0	2.74	34
		%	2.9%	32%	53%	12%	0%		30%
	Sophomores	n	0	3	17	2	0	2.95	22
		%	0%	14%	77%	9.1%	0%		19%
	Juniors	n	0	2	8	2	0	3.00	12
		%	0%	17%	67%	17%	0%		10%
	Seniors	n	0	8	27	12	0	3.09	47
		%	0%	17%	57%	26%	0%		41%
By Transfer Status	Native Students*	n	1	27	71	21	0	2.93	120
		%	0.8%	23%	59%	18%	0%		79%
	Transfer Students	n	0	19	10	3	0	2.50	32
		%	0%	59%	31%	9.4%	0%		21%

*Native students refers to freshmen who started at OSU as first-time freshmen.

Component scores for critical thinking skills assessment

In addition to providing an overall score for each artifact, reviewers assigned scores to four components of each artifact and to three additional components where it was appropriate to do so - corresponding to the components of the rubric. When a larger number of artifacts have been evaluated, the component scores will more precisely indicate areas for focusing efforts to improve students' critical thinking skills.

Average component scores for sub-areas of critical thinking for 2008:

Component:	Problem	Perspective	Support	Conclusion	Others	Assumptions	Context
Average Score:	2.96 (N=152)	3.00 (N=152)	2.90 (N=152)	2.74 (N=152)	2.79 (N=25)	2.69 (N=51)	2.58 (N=70)

Critical thinking skills scores, 2005-2008 (years combined)

			Score						
			1	**2**	**3**	**4**	**5**	**Avg**	**N**
Overall Scores	Overall	n	20	174	283	85	1	2.77	563
		%	3.6%	31%	50%	15%	0.2%		
By Class	Freshmen	n	2	25	37	15	0	2.82	79
		%	2.5%	32%	47%	19%	0%		14%
	Sophomores	n	1	22	45	5	0	2.74	73
		%	1.4%	30%	62%	6.8%	0%		13%
	Juniors	n	8	45	71	24	0	2.75	148
		%	5.4%	30%	48%	16%	0%		26%
	Seniors	n	9	82	130	41	1	2.78	263
		%	3.4%	31%	49%	16%	0.4%		47%
By Class (regular admit only)*	Freshmen	n	1	25	36	14	0	2.83	76
		%	1.3%	33%	47%	18%	0%		20%
	Sophomores	n	0	11	37	4	0	2.87	52
		%	0%	21%	71%	7.7%	0%		13%
	Juniors	n	7	23	53	21	0	2.85	104
		%	6.7%	22%	51%	20%	0%		27%
	Seniors	n	2	41	87	26	0	2.88	156
		%	1.3%	26%	56%	17%	0%		40%
By Transfer Status***	Native Students**	n	10	115	222	70	0	2.84	417
		%	2.4%	28%	53%	17%	0%		74%
	Transfer Students	n	9	59	61	15	1	2.59	145
		%	6.2%	41%	42%	10%	0.7%		26%

*Admission type unknown for one student.
**Native students refers to freshmen who started at OSU as first-time freshmen.
***Data was also categorized and analyzed by number of transfer hours in increments of 15 hours; ANOVA analysis indicated no statistically significant difference among these groups.

Average component scores for sub-areas of critical thinking for 2005-2008:

Component:	Problem	Perspective	Support	Conclusion	Others	Assumptions	Context
Average Score:	2.88 (N=563)	2.98 (N=563)	2.82 (N=563)	2.66 (N=563)	2.59 (N=90)	2.51 (N=96)	2.52 (N=207)

Comparison of overall average critical thinking scores by year

			Score						
			1	**2**	**3**	**4**	**5**	**Avg**	**N**
Overall Scores	Overall	n	20	174	283	85	1	2.77	563
		%	3.6%	31%	50%	15%	0.2%		
By Year	2005	n	2	40	72	26	1	2.89	141
		%	1.4%	28%	51%	18%	.7%		
	2006	n	4	29	54	19	0	2.83	106
		%	3.8%	27%	51%	18%	0%		
	2007	n	13	59	76	16	0	2.58	164
		%	7.9%	36%	46%	9.8%	0%		
	2008	n	1	46	81	24	0	2.84	152
		%	0.7%	30%	53%	16%	0%		

Comparison of overall average critical thinking scores by classification and by year

			Year				
			2005	**2006**	**2007**	**2008**	**N**
	Freshmen	n	1	0	44	34	79
		avg	3.00	-	2.89	2.74	
	Sophomores	n	18	8	23	24	73
		avg	2.72	2.63	2.65	2.88	
	Juniors	n	57	36	33	22	148
		avg	2.93	2.78	2.42	2.73	
	Seniors	n	65	62	64	72	263
		avg	2.89	2.89	2.42	2.92	

Key findings

- Average scores by classification were compared using ANOVA, and no statistically significant differences were found between groups.
- Overall scores were found to be correlated with ACT composite scores and sub-scores, as well as with OSU GPAs.
- Students' highest average rubric criteria score (2.98, N = 563) was on "Presentation of the student's own perspective and position as it is important to the analysis of the issue." Although many artifacts were not scored on this criteria, the lowest average criteria score (2.51, N = 96) was on "Assessment of the key assumptions and the validity of the supporting background information." This score rose from 2.32 in 2007.

Assessment of Diversity Learning Goal

2008 collection of diversity samples

The Office of University Assessment and Testing supervised the collection of student artifacts for the Diversity Institutional Portfolio in Spring 2008. Instructors from the following undergraduate courses contributed random samples of student work to the portfolio:

Course No.	Course Name	General Education Designation (if any)	Number of artifacts randomly collected from one assignment	Number of artifacts reviewed	Number of artifacts used in data analysis
POLS 3974	Race, Politics and Sports	D	13	7	7
EDUC 4443	Cultural Diversity in Professional Life	D	20	10	10
ENGL 3193	African American Literature	H	20	10	10
ENGL 3183	Native American Literature	H	9	9	9
ENGL 2883	Survey of American Literature II		20	10	0
ENGL 2883	Survey of American Literature II		14	8	8
HDFS 4533	Critical Issues in HDFS		16	8	0
CIVE 3813	Environmental Engineering Science		8	8	0
ANSI 3903	Agri. Animals of the World	I	20	10	0
	Total Number of Diversity Artifacts (samples)		**140**	**80**	**44**

*The number of artifacts reviewed in 2008 was less than the number collected; artifacts that reviewers found to be best suited for the assessment method were included (n=80). Artifacts were not included in the assessment if the students' performance did not demonstrate the knowledge, skills and attitudes described in components of the rubric to an extent that reviewers felt they could make a fair evaluation.

Artifacts selected for the Institutional Portfolio were coded and all identifying information was removed from the samples. Demographic data were collected for each artifact using the OSU student database; these data were collected for analysis purposes only and the information cannot be used to identify an individual. The student demographic information associated with the samples was not shared with reviewers prior to the reviews.

2008 diversity portfolio reviews

Three faculty reviewers for the diversity institutional portfolio conducted this assessment in June and July 2008. Portfolio reviewers included Jon Comer (Geography), John Gelder (Chemistry), and Jean Van Delinder (Sociology). Initially, the reviewers met for two training sessions where the one new member to group received background information on the procedure (the others had worked on the development of the rubric in the previous year) and all practiced scoring artifacts using the diversity rubric developed for this purpose in 2006. Then, reviewers independently evaluated a set of training artifacts using the diversity rubric. During these two initial sessions, reviewers discussed questions and concerns regarding the use of the rubric, discussed scores given to samples of student work, and developed a common approach for evaluating student diversity samples.

Following the training sessions, each member of the group took copies of the 80 papers to score individually. The group then met to reach a consensus scores in cases where there was variation across individual scores (for the same artifact). The group also worked to agree within one point on sub-scores for each artifact. The final scores were then submitted to the office of University Assessment and Testing for data entry and initial analysis.

As indicated in the table above, some artifacts were excluded from the assessment. The decision to include or exclude an assignment was not intended as a judgment about the quality of the assignment itself, but was a judgment about the "fit" or "match" of the content of the papers to the components of the rubric. Faculty reviewers described papers that work well for the assessment as having some critical analysis of a cultural or diversity-related issue; describing some reflection on the issue or related personal experience; and often including comparison of two or more cultures or diverse groups.

The criteria and goals for General Education state that the curriculum is intended to "assist students in understanding and respecting diversity in people, beliefs and societies." A new general education designation for courses with this focus was created in Fall 2007. In Fall 2008, a policy was implemented that requires all incoming students to take at least one course with this designation as part of the general education curriculum. However, assessment of students' achievement of the learning goal regarding diversity will not be limited to these designated courses. It is expected that many courses provide experiences to help students achieve this goal, and that students' activities outside of class, such as interacting with others in student organizations, living environments, and participating in other extra-curricular activities also contribute to their achievement.

Statement of Learning Outcome: "Graduates will understand and respect diversity in people, beliefs and societies."

Outcome Components:		Level of Achievement 1	2*	3	4**	5
A	**Conceptual understanding**	Understands diversity to mean differences among people. The lowest level of achievement is one that recognizes difference in a superficial and one-dimensional manner (catalogues differences). Can only evaluate others in comparison to herself and in an implied hierarchical manner (exhibits ethnocentrism).		Understands diversity as knowledge of differences in cultural practices, attitudes, and beliefs. Moderate appreciation for the value of any of this understanding in application or in navigating the social and cultural environment. Goes beyond "cataloguing" differences		Understands diversity as multidimensional in nature. Strong appreciation for the value of knowledge and understanding in application and in navigating the social and cultural environment.
B	**Values diversity**	Demonstrates minimal tendency to try to understand and to value multiple perspectives. Is unable to draw on diverse opinion when making decisions.		Demonstrates moderate tendency to try to understand and to value multiple perspectives. Demonstrates ability to examine more than one opinion and consider relevant cultural differences when making decisions.		Demonstrates a strong perspective of inclusion. Demonstrates strong tendency to try to understand and to value multiple perspectives.
C	**Knowledge of historical context**	Student's work demonstrates minimal knowledge of history of racial, ethnic or other relevant groups. Lacks perspective on the issue.		Student's work demonstrates moderate knowledge of historical context and how that historical context is important to the issue.		Student's work demonstrates substantial knowledge of historical context and how that history applies to present-day situations relating to inter-group relations.
D	**Sources of understanding, value, and knowledge**.	Student's understanding and values regarding diversity are based primarily on limited factual knowledge and personal observation; little apparent influence of personal experience outside own immediate environment.		Student's understanding and values regarding diversity are based primarily on moderate factual knowledge and personal observation; some apparent influence of personal experience outside own immediate environment.		Student's understanding and values regarding diversity are based on reflection and integration of substantial factual knowledge and personal observation; strong apparent influence of personal experience outside own immediate environment.

* Exhibits most characteristics of '1' and some of '3'
** Exhibits most characteristics of '3' and some of '5'

revised 12-13-07

Student demographics associated with diversity artifacts, 2007-2008

		2007		2008		Years Combined	
		No. of artifacts	pct	No. of artifacts	pct	No. of artifacts	Pct
Number of Artifacts	# collected	190	-	348	-	538	-
	# scored	69	-	55	-	124	-
	# used in analysis	69	-	44	-	113	-
Class	Freshman	5	7.2%	0	0%	5	%
	Sophomore	13	19%	7	16%	20	%
	Junior	25	36%	21	48%	46	%
	Senior	26	38%	16	36%	42	%
College	CAS	19	28%	23	52%	42	37%
	CASNR	0	0%	1	2.3%	1	0.9%
	SSB	4	5.8%	0	0%	4	3.5%
	COE	30	44%	15	34%	45	40%
	CEAT	6	8.7%	2	4.5%	8	7.1%
	CHES	0	0%	3	6.8%	3	2.7%
	UAS	10	14%	0	0%	10	8.8%
Gender	Female	16	23%	26	59%	42	37%
	Male	53	77%	18	41%	71	63%
Admit Type	Regular (A, AR, L)	19	28%	31	70%	50	44%
	Alternative Admit (F)	8	12%	2	4.5%	10	8.8%
	Adult Admit (G)	0	0%	0	0%	0	0%
	"Third Door" Admit (K)	0	0%	0	0%	0	0%
	International (J)	2	2.9%	0	0%	2	1.8%
	Transfer (M, MR)	39	57%	11	25%	50	44%
	Other or Blank	1	1.4%	0	0%	1	0.9%
ACT	<22	18	49%	9	23%	27	35%
	22 to 24	13	35%	10	25%	23	30%
	25 to 27	3	8.1%	8	20%	11	14%
	28 to 30	1	2.7%	7	18%	8	10%
	>30	2	5.4%	6	15%	8	10%
OSU GPA	<2.0	4	5.8%	0	0%	4	3.5%
	2.0 to 2.49	20	29%	6	14%	26	23%
	2.50 to 2.99	18	26%	19	43%	37	33%
	3.00 to 3.49	15	22%	3	6.8%	18	16%
	3.50 to 4.00	12	17%	16	36%	28	25%

Diversity scores, 2008

			Score						
			1	**2**	**3**	**4**	**5**	**Avg**	**N**
Overall Scores	Overall	n	1	10	16	15	2	3.16	44
		%	2.3%	23%	36%	34%	4.5%		
By Class	Freshmen	n	0	0	0	0	0	-	0
		%	0%	0%	0%	0%	0%		0%
	Sophomores	n	1	3	1	1	1	2.71	7
		%	14%	43%	14%	14%	14%		16%
	Juniors	n	0	3	8	10	0	3.33	21
		%	0%	14%	38%	48%	0%		48%
	Seniors	n	0	4	7	4	1	3.13	16
		%	0%	25%	44%	25%	6.3%		36%
By Class (regular admit only)	Freshmen	n	0	0	0	0	0	-	0
		%	0%	0%	0%	0%	0%		0%
	Sophomores	n	0	2	1	1	1	3.20	5
		%	0%	40%	20%	20%	20%		16%
	Juniors	n	0	1	5	8	0	3.50	14
		%	0%	7.1%	36%	57%	0%		45%
	Seniors	n	0	1	6	4	1	3.42	12
		%	0%	8.3%	50%	33%	8.3%		39%
By Transfer Status	Native Students*	n	0	6	12	13	2	3.33	33
		%	0%	18%	36%	39%	6.1%		75%
	Transfer Students	n	1	4	4	2	0	2.64	11
		%	9.1%	36%	36%	18%	0%		25%

*Native students refers to freshmen who started at OSU as first-time freshmen.

Average component scores for sub-areas of diversity for 2008:

Component:	Conceptual Understanding	Values Diversity	Knowledge of Historical Context	Sources of Understanding
Average Score:	3.09 (N=44)	2.94 (N=44)	3.00 (N=44)	2.90 (N=44)

Diversity scores, 2007-2008 (years combined)

			Score						
			1	**2**	**3**	**4**	**5**	**Avg**	**N**
Overall Scores	Overall	n	10	45	34	22	2	2.65	113
		%	8.8%	40%	30%	20%	1.8%		
By Class	Freshmen	n	1	3	1	0	0	2.00	5
		%	20%	60%	20%	0%	0%		4.4%
	Sophomores	n	3	10	5	1	1	2.35	20
		%	15%	50%	25%	5%	5%		18%
	Juniors	n	4	15	13	14	0	2.80	46
		%	8.7%	33%	28%	30%	0%		41%
	Seniors	n	2	17	15	7	1	2.71	42
		%	4.8%	41%	36%	17%	2.4%		37%
By Class (regular admits only)	Freshmen	n	0	2	1	0	0	2.33	3
		%	0%	67%	33%	0%	0%		6.0%
	Sophomores	n	0	4	3	1	1	2.89	9
		%	0%	44%	33%	11%	11%		18%
	Juniors	n	0	2	7	10	0	3.42	19
		%	0%	11%	37%	53%	0%		38%
	Seniors	n	0	5	8	5	1	3.11	19
		%	0%	26%	42%	26%	5.3%		38%
By Transfer Status*	Native Students**	n	3	22	19	16	2	2.87	62
		%	4.8%	36%	31%	26%	3.2%		55%
	Transfer Students***	n	7	23	14	6	0	2.38	50
		%	14%	46%	28%	12%	0%		45%

*Admission type unknown for one student.
**Native students refers to freshmen who started at OSU as first-time freshmen.
*** Data was also categorized and analyzed by number of transfer hours in increments of 15 hours; ANOVA analysis indicated no statistically significant difference among these groups.

Average component scores for sub-areas of diversity for 2007-2008:

Component:	Conceptual Understanding	Values Diversity	Knowledge of Historical Context	Sources of Understanding
Average Score:	2.58 (N=113)	2.58 (N=113)	2.58 (N=113)	2.54 (N=113)

Comparison of overall average diversity scores by year

			Score						
			1	**2**	**3**	**4**	**5**	**Avg**	**N**
Overall Scores	Overall	n	10	45	34	22	2	2.65	113
		%	8.8%	40%	30%	20%	1.8%		
By Year	2007	n	9	35	18	7	0	2.33	69
		%	13%	51%	26%	10%	0%		
	2008	n	1	10	16	15	2	3.16	44
		%	2.3%	23%	36%	34%	4.5%		

Comparison of overall average diversity scores by classification and by year

		Year		
		2007	**2008**	**N**
Freshmen	n	5	0	5
	avg	2.00	-	
Sophomores	n	13	7	20
	avg	2.15	2.71	
Juniors	n	25	21	46
	avg	2.36	3.33	
Seniors	n	26	16	42
	avg	2.46	3.13	

Key findings

- Too few artifacts have been evaluated for results to be useful for generalizations about student learning; the committee will continue to increase the number of artifacts in this portfolio next year.
- It was difficult or impossible to apply the rubric to some of artifacts collected. The committee will ask faculty to consider developing assignments that will ask students to demonstrate the knowledge, skills, and attitudes represented in the learning outcome being assessed.
- Although some faculty instructions for the assignments asked students to address diversity issues in their papers, many students tended to focus more on other components of the assignments and somewhat avoid the diversity aspect. Students' work often indicated limited experiences with diversity.

Committee plans for diversity assessment

The committee concluded that additional campus-wide discussion(s) about faculty expectations for students' knowledge, skills and attitudes about diversity and methods to assess students' achievement of those expectations are needed to develop an effective assessment process. One or more faculty workshops will be held during the 2008-09 academic year to continue the discussion about the development of the diversity assessment rubric, and engage faculty members in discussions about development of assignments to help students achieve this learning goal as well as providing artifacts for the assessment process.

Assessment of Written Communication Skills

2008 collection of writing samples

The Office of University Assessment and Testing supervised the collection of student writing artifacts in Spring 2008 for the Written Communication Skills Institutional Portfolio. Instructors from the following undergraduate courses contributed random samples of student work to the portfolio:

Course No.	Course Name	General Education Designation (if any)	Number of artifacts randomly collected from one assignment	Number of artifacts reviewed	Number of artifacts used in data analysis
CIVE 4833	Unit Operations Environmental Engineering		10	10	10
GEOG 2253	World Regional Geography	I, S	20	18	18
ENGL 3193	African American Literature	H	20	18	18
ENGL 3183	Native American Literature	H	9	9	9
ENGL 3190	Ethnicity and the City		20	18	18
ENGL 2883	Survey of American Lit II		20	18	18
ENGL 2773	Survey of American Lit I		20	18	18
MGMT 4613	International Management	I	20	19	19
NSCI 2211	Professional Careers in Dietetics		20	19	17
BADM 4513	Strategy and Integration in Organizations		20	18	18
ZOOL 3104	Invertebrate Zoology		20	18	18
	Total Number of Writing Artifacts (samples)		**199**	**183**	**181**

*The number of artifacts reviewed in 2008 was less than the number collected because it was determined that artifacts did not meet the criteria for assessment (n=16). The number of artifacts used in data analysis is less than the number reviewed because two artifacts were missing pages.

Artifacts were collected as in previous years. Artifacts selected for the Institutional Portfolio were coded and all identifying information was removed from the samples. Demographic data were collected for each artifact using the OSU student database; these data were collected for analysis purposes only and the information cannot be used to identify an individual. The student demographic information associated with the samples was not shared with reviewers prior to the reviews.

2008 written communication skills portfolio reviews

Six faculty reviewers for the written communication skills institutional portfolio conducted this assessment in May and June 2008. The portfolio reviewers included Frances Griffin (Business Management), Ed Walkiewicz (English), Lou Anella (Horticulture and Landscape Architecture), Becky Damron (English), Deb Jordan (Leisure Studies), and Camille DeYong (Industrial Engineering). All portfolio reviewers met for two training sessions where they received background information on the procedure, and practiced scoring samples of student work using the written communication skills scoring rubric developed for this purpose in 2001. During these two initial sessions, reviewers discussed questions and concerns regarding use of the rubric, discussed scores given to samples of student work, and developed a common approach for evaluating student writing samples.

As with past groups of reviewers, by the end of training sessions with all reviewers present, the reviewers were scoring fairly consistently with little variation among individual members. Five artifacts were scored during the training session. The scoring committee then divided into two sub-groups, each of which undertook to review 88 artifacts. Scoring was done individually, and each sub-group then met to

reach consensus scores where there was variation across individual scores. The final scores were then submitted to the office of University Assessment and Testing for compilation and interpretation.

Written communication skills scores from each review group

Review Group	Artifact Score	Number of Artifacts	Percent of Artifacts
#1 (88 artifacts scored)	1	4	4.5%
	2	48	55%
	3	27	31%
	4	9	10%
	5	0	0%
#2 (88 artifacts scored)	1	3	3.4%
	2	51	58%
	3	29	33%
	4	4	4.5%
	5	1	1.1%
Reviewer Training (5 artifacts scored)	1	0	0%
	2	5	100%
	3	0	0%
	4	0	0%
	5	0	0%

Rubric for evaluating student written communication skills

The General Education Assessment Committee developed the following rubric for evaluating samples of student writing in 2001. In 2006, the rubric was re-organized to reflect the three components that were scored separately in the assessment. As a result of discussion during the scoring and consensus process, the Style and Mechanics component of the rubric was modified to make more explicit the characteristics of appropriate documentation of resources.

Reviewers scored the artifacts independently and then met to develop a consensus score for each artifact; each artifact received an overall, whole-number score from 1 to 5. Reviewers also assigned a sub-score to each artifact for each of four components: content, organization, style/mechanics, and documentation (new in 2008).

Learning Outcome: Graduates will be able to communicate effectively in writing.

	Skill	Level of Achievement 1	2*	3	4**	5
1	Content	Topic is poorly developed; support is only vague or general; ideas are trite; wording is unclear, simplistic; reflects lack of understanding of topic and audience; minimally accomplishes goals of the assignment.		Topic is evident; some supporting detail; wording is generally clear; reflects understanding of topic and audience; generally accomplishes goals of the assignment.		Topic/thesis is clearly stated and well developed; details/wording is accurate, specific, appropriate for the topic & audience, with no digressions; evidence of effective, clear thinking; completely accomplishes the goals of the assignment.
2	Organization	Most paragraphs are rambling and unfocused; no clear beginning or ending paragraphs; inappropriate or missing sequence markers. No clear over-all organization		Most paragraphs are focused; discernible beginning and ending paragraphs; some appropriate sequence markers. Overall organization can be inferred and is appropriate for the assignment		Paragraphs are clearly focused and organized around a central theme; clear beginnings and ending paragraphs; appropriate, coherent sequences and sequence markers. Overall organization is clearly marked and is appropriate for the assignment
3	Style and mechanics	Inappropriate or inaccurate word choice; repetitive words and sentence types; inappropriate or inconsistent point of view and tone. Frequent non-standard grammar, spelling, punctuation interferes with comprehension and writer's credibility.		Generally appropriate word choice; variety in vocabulary and sentence types; appropriate point of view and tone. Some non-standard grammar, spelling, and punctuation; errors do not generally interfere with comprehension or writer's credibility.		Word choice appropriate for the task; precise, vivid vocabulary; variety of sentence types; consistent and appropriate point of view and tone. Standard grammar, spelling, punctuation; no interference with comprehension or writer's credibility.
4	Documentation	Intext and ending documentation are generally inconsistent and incomplete; cited information is not incorporated into the document.		Intext and ending documentation are generally clear, consistent, and complete; cited information is somewhat incorporated into the document.		Intext and ending documentation are clear, consistent, and complete; cited information is incorporated effectively into the document.

* Exhibits most characteristics of '1' and some of '3'
** Exhibits most characteristics of '3' and some of '5'

revised 5-14-08

Student demographics associated with written communication artifacts, 2001- 2006, 2008

		2001-06		2008		Years Combined	
		no. of artifacts	pct	no. of artifacts	pct	no. of artifacts	pct
Number of Artifacts	# collected	1016	-	285	-	1301	-
	# scored	829	-	181	-	1010	-
	# used in analysis	813	-	181	-	994	-
Class	Freshman	110	14%	17	9.4%	127	13%
	Sophomore	152	19%	40	22%	192	19%
	Junior	229	28%	45	25%	274	28%
	Senior	322	40%	79	44%	401	40%
College	CAS	253	31%	59	33%	312	31%
	CASNR	111	14%	4	2.2%	115	12%
	SSB	135	17%	38	21%	173	17%
	COE	85	11%	40	22%	125	13%
	CEAT	93	11%	17	9.4%	110	11%
	CHES	110	14%	23	13%	133	13%
	UAS	26	3.2%	0	0%	26	2.6%
Gender	Female	428	53%	117	65%	545	55%
	Male	383	47%	64	35%	447	45%
Admit Type	Regular (A, AR, L)	501	62%	125	69%	626	63%
	Alternative Admit (F)	32	3.9%	6	3.3%	38	3.8%
	Adult Admit (G)	11	1.4%	0	0%	11	1.1%
	"Third Door" Admit (K)	5	0.6%	0	0%	5	0.5%
	International (J)	3	0.4%	1	0.6%	4	0.4%
	Transfer (M, MR)	244	30%	48	27%	292	29%
	Other or Blank	17	2.1%	1	0.6%	18	1.8%
ACT	<22	208	32%	31	20%	239	29%
	22 to 24	179	27%	38	24%	217	27%
	25 to 27	148	23%	40	25%	188	23%
	28 to 30	87	13%	28	18%	115	14%
	>30	37	5.6%	20	13%	57	7.0%
OSU GPA	<2.0	39	4.8%	7	3.9%	46	4.6%
	2.0 to 2.49	111	14%	17	9.4%	128	13%
	2.50 to 2.99	186	23%	36	20%	222	22%
	3.00 to 3.49	264	33%	52	29%	316	32%
	3.50 to 4.00	211	26%	69	38%	280	28%

Written communication scores, 2008

			Score						
			1	**2**	**3**	**4**	**5**	**Avg**	**N**
Overall Scores	Overall	n	7	105	55	13	1	2.43	181
		%	3.9%	58%	30%	7.2%	0.6%		
By Class	Freshmen	n	0	13	4	0	0	2.24	17
		%	0%	77%	24%	0%	0%		9.4%
	Sophomores	n	2	22	13	3	0	2.43	40
		%	5.0%	55%	33%	7.5%	0%		22%
	Juniors	n	1	28	11	5	0	2.44	45
		%	2.2%	62%	24%	11%	0%		25%
	Seniors	n	4	42	27	5	1	2.46	79
		%	5.1%	53%	34%	6.3%	1.3%		44%
By Class (regular admit only)	Freshmen	n	0	13	4	0	0	2.24	17
		%	0%	77%	24%	0%	0%		14%
	Sophomores	n	1	18	11	3	0	2.48	33
		%	3.0%	55%	33%	9.1%	0%		26%
	Juniors	n	0	16	7	5	0	2.61	28
		%	0%	57%	25%	18%	0%		22%
	Seniors	n	0	24	18	4	1	2.62	47
		%	0%	51%	38%	8.5%	2.1%		38%
By Transfer Status**	Native Students*	n	3	75	42	12	1	2.50	133
		%	2.3%	56%	32%	9.0%	0.8%		74%
	Transfer Students	n	4	30	13	1	0	2.23	48
		%	8.3%	63%	27%	2.1%	0%		27%

*Native students refers to freshmen who started at OSU as first-time freshmen.

Average component scores for sub-areas of written communication for 2008:

Component:	Content	Organization	Style/Mechanics	Documentation
Average Score:	2.65 (N=181)	2.52 (N=181)	2.53 (N=181)	2.39 (N=119)

Written communication skills scores, 2001-2006, 2008 (years combined)

			Score						
			1	**2**	**3**	**4**	**5**	**Avg**	**N**
Overall Scores	Overall	n	43	326	412	182	31	2.83	994
		%	4.3%	33%	41%	18%	3.1%		
By Class	Freshmen	n	10	52	49	14	2	2.57	127
		%	7.9%	41%	39%	11%	1.6%		13%
	Sophomores	n	12	60	83	30	7	2.79	192
		%	6.3%	31%	43%	16%	3.6%		19%
	Juniors	n	9	98	115	46	6	2.79	274
		%	3.3%	36%	42%	17%	2.2%		28%
	Seniors	n	12	116	165	92	16	2.96	401
		%	3.0%	29%	41%	23%	4.0%		40%
By Class (regular admit only)	Freshmen	n	6	45	44	12	2	2.62	109
		%	5.5%	41%	40%	11%	1.8%		17%
	Sophomores	n	6	42	62	22	5	2.84	137
		%	4.4%	31%	45%	16%	3.6%		22%
	Juniors	n	3	48	73	26	4	2.87	154
		%	1.9%	31%	47%	17%	2.6%		25%
	Seniors	n	2	59	98	55	12	3.07	226
		%	0.9%	26%	43%	24%	5.3%		36%

*ANOVA analysis indicates statistically significant difference between average scores of freshmen and seniors both overall and for regular admits only (p=.05). No difference is found between freshmen and sophomores, freshmen and juniors, or sophomores and juniors.

By Transfer Status**	Native Students* (domestic only)	n	30	225	296	126	25	2.84	702
		%	4.3%	32%	42%	18%	3.6%		71%
	Transfer Students	n	13	101	116	56	6	2.80	292
		%	4.5%	35%	40%	19%	2.1%		29%

*Native students refers to freshmen who started at OSU as first-time freshmen
**An independent sample T test analysis indicates no statistically significant difference between average scores of native students and transfer students (p<.05). Data was also categorized and analyzed by number of transfer hours in increments of 15 hours; ANOVA analysis indicated no significant difference among these groups.

Average component scores for sub-areas of written communication for 2006, 2008*:

Component:	Content	Organization	Style/Mechanics	Documentation**
Average Score:	2.89 (N=290)	2.68 (N=290)	2.66 (N=290)	2.39 (N=119)

*Written communication sub-scores unavailable prior to 2006.
**'Documentation' sub-area added in 2008.

Comparison of overall average written communication scores by year

			Score						
			1	**2**	**3**	**4**	**5**	**Avg**	**N**
Overall Scores	Overall	n	43	326	412	182	31	2.83	994
		%	4.3%	33%	41%	18%	3.1%		
By Year	2001	n	2	28	36	15	5	2.92	86
		%	2.3%	33%	42%	17%	5.8%		
	2002	n	11	26	53	20	1	2.77	111
		%	9.9%	23%	48%	18%	0.9%		
	2003	n	8	64	99	48	6	2.91	225
		%	3.6%	28%	44%	21%	2.7%		
	2004	n	6	37	53	33	11	3.04	140
		%	4.3%	26%	38%	24%	7.9%		
	2005	n	7	41	65	23	6	2.86	142
		%	4.9%	29%	46%	16%	4.2%		
	2006	n	2	25	51	30	1	3.03	109
		%	1.8%	23%	47%	28%	0.9%		
	2008	n	7	105	55	13	1	2.43	181
		%	3.9%	58%	30%	7.2%	0.6%		

*ANOVA analysis of mean scores by year indicates that mean scores for 2008 are significantly lower than those for all other years ($p<.05$).

Comparison of overall average written communication scores by classification and by year

			Year							
			2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2008**	**N**
	Freshmen	n	15	23	31	19	16	6	17	127
		avg	2.47	2.65	2.58	2.74	2.69	2.67	2.24	
	Sophomores	n	20	14	48	25	35	10	40	192
		avg	2.90	2.57	2.79	3.32	2.83	2.90	2.43	
	Juniors	n	20	34	52	39	46	38	45	274
		avg	3.00	2.82	3.04	2.74	2.65	2.92	2.44	
	Seniors	n	31	40	94	57	45	55	79	401
		avg	3.10	2.85	3.01	3.23	3.16	3.16	2.46	

*ANOVA analysis of mean scores by year within each classification shows no statistical difference from year to year for freshmen. Average scores of sophomores are significantly lower in 2008 than in 2004, and of juniors, significantly lower in 2008 than in 2003. Average scores of seniors are significantly lower in 2008 than in 2001, 2003, 2004, 2005, and 2006 ($p<.05$).

Key findings

- Prior to 2008, no statistically significant difference was found among average scores for each year (average scores neither increased nor decreased significantly during the six-year period); however, mean scores for 2008 were found to be statistically significantly lower than those for all other years.
- Average scores of seniors were found to be statistically significantly lower in 2008 than in 2001, 2003, 2004, 2005, and 2006.
- Writing scores on samples of work from freshmen were significantly lower than scores on writing samples from seniors ($n=994$, $p<0.05$); 49% of the freshmen writing samples had scores of "1" or "2" and 51% had scores of "3" or higher. In contrast, 68% of writing samples from seniors received a score of "3" or higher. When only regularly admitted students were included in the analysis (i.e., excluding transfer, international, and alternatively admitted students), the contrast was even more pronounced. Considering only regularly admitted students, 73% of work produced by seniors received scores of "3" or higher.
- No statistically significant difference was found between the writing scores of native (students who start their career at OSU) and transfer students.

General Education Institutional Portfolios Overview

The numbers of samples scored and used in analysis for each institutional portfolio developed in 2001-2008 are shown below. Institutional Portfolios for written communication skills assessment were developed in 2001 (pilot test year), 2002, 2003, 2004, 2005, 2006 and 2008; portfolios for math problem-solving skills were developed in 2002 (pilot test year), 2003, 2005 and 2007; and portfolios for science problem-solving skills were developed in 2003 (pilot test year), 2004, 2005 and 2007. An Institutional Portfolio for assessment of critical thinking was assessed in 2004 (pilot test year), 2005, 2006, 2007 and 2008. An Institutional Portfolio for assessment of students' achievement of the diversity learning goal was pilot tested in 2006 and assessed in 2007 and 2008; 2006 results are not reported because the primary work of the committee was to develop a rubric for the assessment.

Number of samples in each portfolio, 2001-2008

	Portfolio Type					
Year	**Written Communication Skills**	**Math Problem-Solving Skills**	**Science Problem-Solving Skills**	**Critical Thinking Skills**	**Diversity Learning Outcomes**	**Total number of samples - all portfolios**
2001	86	-	-	-	-	86
2002	111	76	-	-	-	187
2003	225	268	68	-	-	561
2004	140	-	141	-	-	281
2005	142	189	129	141	-	601
2006	109	-	-	106	-	215
2007	-	-	85	164	69	318
2008	181	-	-	152	47	380
All Years	**994**	**533**	**423**	**563**	**116**	**2629**

Overall portfolio scores for subject-area portfolios, years combined

		Score				
	Artifacts	**1**	**2**	**3**	**4**	**5**
Critical Thinking Skills (2005-2008)	N	20	174	283	85	1
	%	3.6%	31%	50%	15%	0.2%
Diversity Learning Outcomes (2007, 2008)	N	10	45	36	23	2
	%	8.6%	39%	31%	20%	1.7%
Math Problem-Solving Skills (2002, 2003, 2005)	N	60	155	159	118	41
	%	11%	29%	30%	22%	7.7%
Science Problem-Solving Skills (2003, 2004, 2005, 2007)	N	27	150	161	78	7
	%	6.4%	36%	38%	18%	1.7%
Written Communication Skills (2001-2006, 2008)	N	43	326	412	182	31
	%	4.3%	33%	41%	18%	3.1%

The process of development of the critical thinking skills institutional portfolio has provided opportunities for useful discussion among faculty about ways to develop and assess students' critical thinking skills in the classroom. The committee will engage other faculty members in interpretation and analysis of the results, and discussion about action for improvement of students' achievement. The component scores should result in especially useful information for focusing efforts to improve students' critical thinking skills.

The written communication skills institutional portfolio is developing into an effective assessment tool. The increased sample size in this portfolio has allowed more confidence in the analysis and implications of the results. The addition of component scoring implemented this year should result in more useful information for improving students' written communication skills. Although no significant improvement in writing skills is indicated over the six year period, the impact of curricular changes implemented in 2005 should become apparent over the next 2-3 years.

The portfolio to assess students' knowledge, skills and attitudes regarding diversity has not reached sufficient sample size to provide assessment results that can be generalized. However, the assessment process has resulted in many useful conversations among faculty about how to develop class activities and assignments to facilitate students' achievement of desired knowledge, skills and attitudes.

Proposed General Education Assessment Activity for 2008-09

A. The Committee plans to continue the institutional portfolio for assessing student critical thinking skills. The committee recommends that two portfolio-scoring groups each review about 60 samples of randomly collected student work demonstrating critical thinking skills. Because each group consists of three faculty members, this will require six faculty reviewers for the 2009 critical thinking portfolio (two Committee members and four additional faculty reviewers).

B. The Committee plans to expand the institutional portfolio to evaluate students' written communication skills. The Committee recommends that 2 portfolio-scoring groups, consisting of 3 faculty members, evaluate the written communication skills portfolio (two Committee members and four additional faculty reviewers).

C. The Committee plans to develop the institutional portfolio to evaluate students' learning about diversity. The Committee recommends that 2 portfolio-scoring groups, each consisting of 3 faculty members, evaluate the diversity portfolio (two Committee members and four additional faculty reviewers).

D. The Committee plans to develop the institutional portfolio to evaluate students' learning about science reasoning. The Committee recommends that 2 portfolio-scoring groups, each consisting of 3 faculty members, evaluate the diversity portfolio (two Committee members and four additional faculty reviewers).

E. The Committee plans to present four series of faculty development workshops, with each series to focus on one of the portfolio topics to be assessed in Summer 2009. Faculty participants will be asked to create or revise a class assignment to produce an example of student work that demonstrates the desired learning goal. A sample of student work will be collected from each assignment and included in the assessment in Summer 2009. Faculty participants will be paid a stipend for their work.