

OHIO NORTHERN UNIVERSITY
2006-07 ANNUAL REPORT ON THE ASSESSMENT OF STUDENT LEARNING

Academic Program: University General Learning Objectives

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I. ASSESSMENT PROGRAM COMPONENTS

A. Learning Objectives

As a result of their general education experience, Ohio Northern University students will be able to:

1. Think and express themselves clearly
2. Solve problems analytically and creatively

As a result of their overall educational experience, Ohio Northern University students will graduate from the University being able to:

3. Demonstrate knowledge, skills and values for a program of study or career

In addition, Ohio Northern University students will graduate from the University prepared to:

4. Know and rely on themselves
5. Listen, understand, and work with others
6. Demonstrate technological knowledge and skills
7. Contribute to the good of humankind
8. Practice truthful and ethical behavior
9. Demonstrate cultural understanding and an appreciation for diversity

B. Measurements

1. Collegiate Learning Assessment (CLA)-Direct Measure
2. National Survey of Student Engagement (NSSE)/Law School Survey of Student Engagement (LSSSE)-Indirect Measure
3. College Senior Survey (CSS)- Indirect Measure
4. Alumni Survey- Indirect Measure
5. Employer Survey- Indirect Measure
6. Graduate Record Exam (GRE)- Direct Measure
7. Discipline-Specific Comprehensive Examinations- Direct Measure
8. Placement Rates- Indirect Measure
9. Residence Life Survey- Indirect Measure
10. Course-Embedded Writing and Interpersonal Communication Assessments- Direct Measure
11. Course-Embedded Public Speaking Assessment- Direct Measure

The table on the following page indicates the methods by which each learning objective is assessed (D=Direct Measure; I=Indirect Measure).

	CLA	NSSE/ LSSSE	CSS	Alumni Survey	Employer Survey	GRE	Discipline-Specific Comprehensive Exams	Placement Rates	Residence Life Survey	Writing and Interpersonal Communication Assessments	Public Speaking Assessment
1. Think and express themselves clearly	D	I	I	I	I	D				D	D
2. Solve problems analytically and creatively	D	I	I	I	I	D					
3. Knowledge, skills, and values for specific program		I	I				D	I			
4. Know and rely on themselves		I		I	I				I		
5. Listen, understand, and work with others		I	I	I	I				I		
6. Demonstrate technological knowledge and skills		I	I	I	I						
7. Contribute to the good of humankind		I		I	I				I		
8. Practice truthful and ethical behavior		I							I		
9. Demonstrate cultural understanding and an appreciation for diversity		I	I	I	I				I		

D=Direct measure; I=Indirect measure

II. ASSESSMENT ACTIVITIES FOR 2006-07 (ACADEMIC YEAR)

A. Describe the *measures* used to collect the data.

1. Collegiate Learning Assessment (CLA): The Collegiate Learning Assessment (CLA) is a national effort that provides colleges and universities with information about performance on

tasks that require students to think critically, reason analytically, solve realistic problems, and write clearly. The CLA uses various types of tasks, all of which require students to construct written responses to open-ended questions. Each Performance Task requires students to use critical thinking, analytic reasoning, problem solving, and written communication skills to answer several open-ended questions about a hypothetical but realistic situation. The Analytic Writing Task requires students to respond to two types of essay prompts: a “Make-an-Argument” question that asks them to support or reject a position on some issue; and a “Critique-an-Argument” question that asks them to evaluate the validity of an argument made by someone else.

CLA uses a national database of participating schools to examine whether the students at Ohio Northern University performed (as a group) better or worse than expected. An “expected” CLA score is based on two factors: the mean SAT/ACT score for students at the institution and the typical relationship between an institution’s average SAT/ACT score and its average CLA score. Based on those results, CLA designates five performance levels for an institution: *well below expected*, *below expected*, *at expected*, *above expected*, and *well above expected*.

Institutions participate in the CLA as either cross-sectional or longitudinal schools. Ohio Northern University began its participation in CLA in the fall of 2005 as a longitudinal institution as part of the Lumina Longitudinal Study. Cross-sectional schools test samples of freshmen in the fall and seniors in the spring (of the same academic year). Longitudinal schools follow the same students as they progress at the college by testing them three times (as freshmen, rising juniors and seniors). Additionally, longitudinal schools follow the cross-sectional approach in their first year by testing a sample of seniors in the spring to gather comparative data.

During the 2005-06 academic year, 316 ONU freshman and 109 ONU senior/P4 students participated in the electronic administration of the CLA in order to provide “value-added” results based upon the cross-sectional approach. [Please note the inclusion of P4s rather than P6s in the CLA study should be considered when interpreting results.]

The following year (to coincide with the longitudinal approach to the CLA), 125 rising juniors (out of the 316 freshmen tested in the fall of 2005) took part in the CLA. These same students will participate in the CLA for a final time in the spring of 2009 to determine “value-added” results based on the longitudinal approach.

2. National Survey of Student Engagement (NSSE) and Law School Survey of Student Engagement (LSSSE): NSSE and LSSSE were designed to assess the extent to which students are engaged in empirically derived good educational practices. In one section of the survey, students indicate the extent to which their experience at Ohio Northern contributed to their knowledge, skills, and personal development in several areas that correspond with the University’s general learning objectives.

The University participates in NSSE every other year. The most recent full administration of NSSE at ONU was in the spring of 2006. In the spring of 2006, 867 first-year students and 577 senior/P4 students received the NSSE survey electronically. The overall response rate for NSSE was 58%. [Please note that the inclusion of P4s rather than P6s in NSSE should be considered

when interpreting results.]

The next administration of NSSE is in the spring of 2008.

The College of Law participates in LSSSE annually. In the spring of 2007, all law students received the survey electronically (n=308). The response rate for LSSSE was 63%.

3. College Senior Survey (CSS): The CSS, developed by the Higher Education Research Institute, was designed to help institutions respond to the need for assessment and accountability data by providing information on a broad range of student outcomes. Outcomes include a section of questions where students indicate whether or not their abilities in several areas (related to the University's general learning objectives) are stronger now compared to when they first started at Ohio Northern.

The University participates in the CSS every other year (alternating with NSSE). The CSS was administered electronically to 473 ONU students (Arts and Sciences, Business, Engineering, and Pharmacy) graduating in the spring of 2007. One hundred six graduating students responded (response rate of 22.4%).

The next administration of CSS is in the spring of 2009.

4. Alumni Survey: The Alumni Survey was developed locally to determine the degree to which various learning outcomes associated with the University's general learning objectives are obtained. Graduates indicate to what extent they consider the importance of each outcome to their development and the extent to which their experience at Ohio Northern has contributed to their development for each outcome.

The University conducts the Alumni Survey every three years. In the spring of 2005, alumni surveys were mailed to students graduating from the four undergraduate colleges from fall 1999 through summer 2002. Of the 1,244 alumni surveys mailed, 405 alumni responded for a response rate of 32.6%.

The University will conduct the next Alumni Survey in the spring of 2008.

5. Employer Survey: The Employer Survey was developed to coincide with the Alumni Survey and asks employers of graduates to indicate the importance of outcomes related to the University's general learning objectives and the extent to which the Ohio Northern graduate in their employ demonstrates each of the outcomes.

The University conducts the Employer Survey every three years. In the spring of 2005, alumni surveys were mailed to students graduating from the four undergraduate colleges from fall 1999 through summer 2002. Respondents to the Alumni Survey were asked to provide contact information for their employers. Of the 405 alumni respondents, 224 provided contact information for employers (55.3%). Employer Surveys and signed alumni consent forms were mailed to employers. Of the 224 sent, the Office of Institutional Research received 142 responses (63.4%).

The University will conduct the next Employer Survey in the spring of 2008.

6. Graduate Record Exam (GRE): Most students planning on attending graduate school take the Graduate Record Exam. The General Test measures verbal, quantitative, and writing skills. Results presented in this report only include those students choosing to report their scores back to Ohio Northern University. Normally, only half of the students estimated to have taken the exam report their scores to ONU. During the 2006-07 academic year, 56 Ohio Northern students or graduates reported their GRE scores to the university.

7. Discipline-Specific Comprehensive Examinations: Several academic programs require students to pass national or state comprehensive examinations before they are able to practice in their discipline. These programs include athletic training, clinical laboratory science, education, engineering, law, and pharmacy. Additionally students from the business college and students majoring in a biology discipline take ETS[®] Major Field Tests to indicate their proficiency in a given subject area. Specific details of testing and results are located in each major/program assessment report.

8. Placement Rates: The Office of Career Services collects placement information on the majority of graduates each year. For the purposes of this report, the placement status as of six months after commencement is provided.

9. Residence Life Survey: The Office of Residence Life administers an annual survey electronically to students residing in campus housing, which includes a section to evaluate the extent to which campus living contributes to a student's personal growth and development. Areas that are analyzed include: developing values and ethics; understanding people with different beliefs, opinions or values; understanding people of other racial and ethnic backgrounds. Of the 2,290 students residing in campus housing for 2007-08, 680 students (for an estimated response rate of 29.7%) completed surveys.

10. Course-Embedded Writing and Interpersonal Communication Assessments: In the spring of 2006-07, the faculty within the Department of English utilized the CoursEval system to enter evaluation data from all first draft writing assignments of student work from lower and upper-division English courses. Using a common evaluation rubric, faculty assigned a rating for each student's first draft for the following rubric criteria: content, documentation, focus, organization, style, and mechanics. A total of 357 students from 21 course sections were evaluated.

Also in the spring of 2006-07, the faculty within the Department of Communication Arts collected faculty evaluation of student work for the department's Interpersonal Communication courses. Ratings from the book report evaluation and book analysis assignments were collected from 49 students.

11. Course-Embedded Public Speaking Assessment: In the spring of 2006-07, the faculty within the Department of Communication Arts collected faculty evaluation of student work for the department's Public Speaking course. Ratings from the informative and persuasive speech assignments were collected from 139 students.

B. Present the *results* of the data collection and analysis for each measure.

In most cases, the desired standard of performance is a rating of 3.0 or above (on a 4-point scale). For the CLA, the minimum standard of performance is *at the expected level*. Additionally, the minimum standard of performance is to be at or above the national or state comparison data. While the results were mixed between measures for some items, some generalizations can be advanced in terms of the overall findings for the assessment of the University's general learning objectives.

Overall, the results (provided in detail from page 6 to page 29) clearly demonstrate that Ohio Northern University has been successful in preparing students to:

- Solve problems analytically and creatively
- Demonstrate knowledge, skills and values for a program of study or career
- Listen, understand, and work with others
- Demonstrate technological knowledge and skills

For the following learning objectives, the results are more ambiguous and provide contradictory findings pertaining to the University demonstrating its success in preparing students to:

- Think and express themselves clearly
- Know and rely on themselves

Finally, the results clearly demonstrate that Ohio Northern University has not been as successful in preparing students to:

- Contribute to the good of humankind
- Practice truthful and ethical behavior
- Demonstrate cultural understanding and an appreciation for diversity

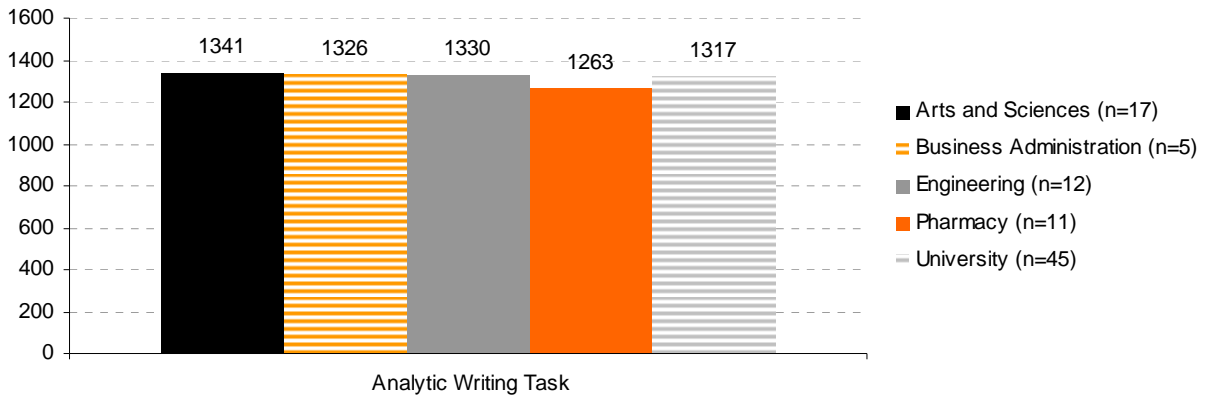
The results (provided in detail) for each of the nine general learning objectives follow.

1. Think and express themselves clearly. Eight of the eleven measures demonstrate student learning in terms of this objective. Results from each assessment measure follow.

a. Collegiate Learning Assessment (CLA)

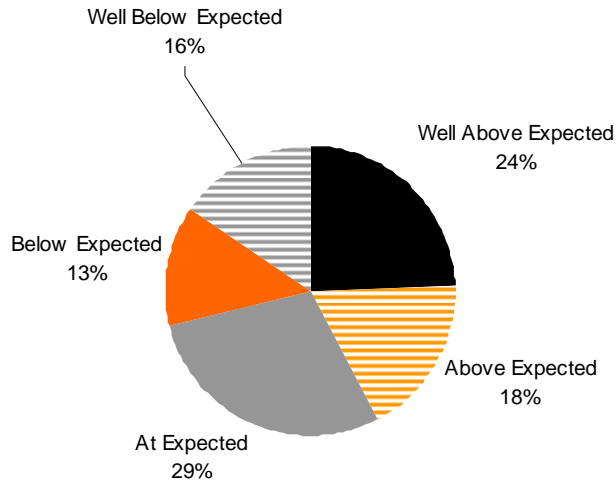
Cross-Sectional Results (Spring 2006 Seniors). The following chart presents the analytic writing task results (n=45) from the seniors/P4s participating in the cross-sectional approach to the Collegiate Learning Assessment (spring 2006).

**Collegiate Learning Assessment Scale Scores
Ohio Northern University Seniors: Spring 2006**



Expected performance levels for the Collegiate Learning Assessment (CLA) are calculated by comparing seniors' actual CLA scores to their expected CLA scores. Expected scores are derived by examining the typical relationship between average SAT scores (or average ACT scores converted to the SAT scale) and average CLA scores. For example, college freshmen with an average SAT score of 1290 would be expected to have an average CLA score of 1235. If their actual average CLA score is substantially higher than that, then their performance would be categorized as scoring higher than expected. The chart below provides the percentage of ONU seniors performing at each expected level for the analytic writing task and indicates that the majority of ONU seniors (71%) performed at or above the expected level.

**Collegiate Learning Assessment Analytic Writing Task Performance Levels
Ohio Northern University Seniors: Spring 2006 (n=45)**



Cross-Sectional Results: Value-Added (Fall 2005 Freshmen to Spring 2006 Seniors). To estimate the “value added” for the 2005-06 cross-sectional administration of the analytic writing task, CLA calculates a difference score, which is derived by comparing the performance difference between the freshmen and senior/P4s tested during the 2005-06 academic year. The

following table provides the difference score and corresponding performance level for the analytic writing task. Larger positive difference scores indicate that the seniors did especially well relative to freshmen. The difference score of 1.10 for the analytic writing task indicates an estimate of the value added at Ohio Northern University as being above the expected level.

	Mean Score-Freshmen	Mean Score-Seniors/P4s	Difference Score	Performance Level
Analytic Writing Task	1071	1317	1.10	Above

Longitudinal Results: Value-Added (Fall 2005 Freshmen to Spring 2007 Rising Juniors).

Preliminary findings from the longitudinal CLA results, which examine the difference in scores of students tested as freshmen and again as rising juniors, indicate a moderate increase in performance for the analytic writing task. The following table provides the results for the longitudinal analysis. The “effect size column indicates how much change occurred between the fall of 2005 and spring of 2007. The larger the positive effect size, the greater the improvement. Effect sizes greater than 0.50 and 1.00 are generally considered “large” and “very large”, respectively. Negative effect sizes would indicate that the students scored higher as freshmen than they did as rising juniors.

	N	Mean Score Fall 05	Std. Dev.	Mean Score Spring 07	Std. Dev.	Diff. in Mean Scores	Std. Dev.	Effect Size
Analytic Writing Task	83	1114	142	1159	100	45	125	0.28

b. National Survey of Student Engagement (NSSE)/Law School of Survey of Student Engagement (LSSSE)

Results from the National Survey of Student Engagement (spring 2006) indicate that Ohio Northern senior/P4 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Writing clearly and effectively	Sig.	Speaking clearly and effectively	Sig.
Ohio Northern Seniors/P4s (n=291)	2.86		2.93	
Arts and Sciences (n=133)	3.00		3.03	
Business (n=36)	2.94		3.14	
Engineering (n=52)	2.67		2.75	
Pharmacy (n=70)	2.71		2.74	
Selected Peers	3.16	***	3.06	
Carnegie Peers	3.14	***	3.07	
NSSE 2006	3.07	***	2.96	

4=very much; 3=quite a bit; 2=some; 1=very little

*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

Results from the Law School Survey of Student Engagement (spring 2007) indicate that Ohio Northern L3 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Writing clearly and effectively	Sig.	Speaking clearly and effectively	Sig.
Ohio Northern L3s (n=48)	3.09		2.87	
Selected Peers	3.20		2.97	
Less than 500 students	2.99		2.85	
Private-Religious	3.10		2.90	
LSSSE 2006	2.95		2.76	

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*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

c. College Senior Survey (CSS)

Results from the College Senior Survey (spring 2005) indicate the percentage of Ohio Northern graduating student respondents reporting “much stronger” abilities compared to when they first started college in the following areas:

	Writing skills (%)	Public speaking ability (%)
Ohio Northern Graduating Students (n=106)	23.6	40.6
Arts and Sciences (n=53)	28.3	43.4
Business (n=13)	23.1	46.2
Engineering (n=16)	18.8	18.8
Pharmacy (n=24)	16.7	45.8
Selected Peers	N/A	N/A
All Private 4-Year Colleges	37.3	33.3

d. Alumni and Employer Surveys

Results from the Alumni Survey (spring 2005) indicate the extent to which alumni respondents (from 1999-2002) consider their experience at Ohio Northern contributed to their development for the following areas:

	Written communication skills	Speaking and presentation skills
Ohio Northern Graduates (n=399)	3.08	3.14
Arts and Sciences (n=178)	3.16	3.20
Business (n=46)	3.02	3.35
Engineering (n=59)	2.81	3.00
Pharmacy (n=116)	3.10	3.04

4=very much; 3=quite a bit; 2=some; 1=very little

Results from the Employer Survey (spring 2005) indicate the extent to which employers of alumni respondents (from 1999-2002) consider the ONU graduate in their employ demonstrates the following:

	Written communication skills	Speaking and presentation skills
Employers of Ohio Northern Graduates (n=137)	3.43	3.38
Business-related (n=22)	3.23	3.32
Engineering-related (n=20)	3.15	3.05
Government (n=9)	3.75	3.78
Health-related (n=50)	3.46	3.41
Non-profit (n=10)	3.78	3.10

Education (n=26)	3.52	3.58
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4=very much; 3=quite a bit; 2=some; 1=very little

e. Graduate Record Exam (GRE)

Graduate Record Exam results for the 2006-07 year indicate that the average verbal score for ONU students (n=54) was 479 (out of 800) indicating an average performance compared to national test-takers at the 53rd percentile. Additionally the mean score for the analytical writing portion of the test was a 4.5 (out of 6) indicating performance at the 53rd percentile.

f. Course-Embedded Assessments

Results from the Course-Embedded Assessment for the general education courses in the Department of English are presented in the following table. Faculty rated writing assignments for content, documentation (Great Works only), focus, organization, style, and mechanics on the following four-point scale: 4=Excels in meeting the department criteria; 3=Substantially meets the department criteria; 2=Adequately meets the department criteria; 1=Does not meet the department criteria.

	Writing 1	Writing 2	Great Works
Number of Sections	2	9	6
Number of Students	27	151	125
Content	2.5	2.5	2.7
Documentation	--	--	2.6
Focus	2.5	2.4	2.5
Organization	2.4	2.3	2.6
Style	2.7	2.3	2.6
Mechanics	2.3	2.4	3.0

Results from the Course-Embedded Assessment for the Interpersonal Communication course in the Department of Communication Arts are presented in the table below. Faculty rated the structure, content, and grammar and writing for the book report evaluation and book analysis assignments.

Interpersonal Communication: Book Report Evaluation

	Average Rating	% of Maximum Score
Structure (Clear introduction and conclusion; well-organized; transitions; 20 pts.)	17.5	87%
Content (Relates interpersonal concepts to relationships in novel; concepts are supported; clearly explained; 60 pts.)	52.8	88%
Grammar and Writing (Punctuation, style; no errors; citations; 20 pts.)	12.7	63%

Interpersonal Communication: Book Analysis

	Average Rating	% of Maximum Score
Structure (Clear introduction and conclusion; well-organized; transitions; 20 pts.)	19.3	96%
Content (Relates interpersonal concepts to relationships in novel; concepts are supported; clearly explained; 60 pts.)	56.0	93%
Grammar and Writing (Punctuation, style; no errors; citations; 20 pts.)	13.6	68%

Results from the Course-Embedded Assessment for the Public Speaking course in the Department of Communication Arts are presented in the following table where faculty rated the students' persuasive and informative speeches on numerous items.

Public Speaking: Informative Speech

	Average Rating	% of Maximum Score
Effective Attention-Getter (10 pts.)	9.6	96%
Strong Credibility/Preview (10 pts.)	8.9	89%
Topic (10 pts.)	9.6	96%
Central Idea/Thesis (10 pts.)	9.3	93%
Main Points (10 pts.)	9.7	97%
Well Researched (10 pts.)	9.8	98%
Verbal Citation of Sources (10 pts.)	7.9	79%
Well Organized (10 pts.)	9.5	95%
Recognizable Transitions (10 pts.)	9.2	92%
Review of Main Points (5 pts.)	4.6	92%
Satisfactory Closing (5 pts.)	4.6	91%
Vocal Variety (5 pts.)	4.7	94%
Rate/Volume (5 pts.)	4.5	91%
Effective Gestures (5 pts.)	4.4	88%
Eye Contact (5 pts.)	4.4	87%
Grammar and Language (5 pts.)	4.6	93%
Practiced Sufficiently (5 pts.)	4.5	90%

Public Speaking: Persuasive Speech

	Average Rating	% of Maximum Score
Effective Attention-Getter (5 pts.)	4.4	89%
Clear Purpose Statement (5 pts.)	4.6	91%
strong Credibility Statement (5 pts.)	4.4	89%
Persuasive Topic (10 pts.)	8.4	84%
Interesting Topic (5 pts.)	4.6	93%

Central Idea/Thesis (10 pts.)	9.5	95%
Main Points (5 pts.)	4.8	96%
Well Researched (10 pts.)	9.5	95%
Well Organized (5 pts.)	4.9	98%
Verbal Citation of Sources (5 pts.)	4.4	89%
Simple, Clear, and Vivid Visuals (10 pts.)	8.4	84%
Recognizable Transitions (5 pts.)	4.7	93%
Review of Main Points (5 pts.)	4.7	95%
Satisfactory Closing (5 pts.)	4.8	95%
Reinforcement of Persuasive Appeals (10 pts.)	8.8	88%
Vocal Variety (5 pts.)	4.1	82%
Rate/Volume (5 pts.)	4.1	82%
Effective Gestures (5 pts.)	4.3	85%
Eye Contact (5 pts.)	3.8	75%
Grammar and Language (5 pts.)	4.6	92%
Practiced Sufficiently (5 pts.)	4.5	89%

g. Summary

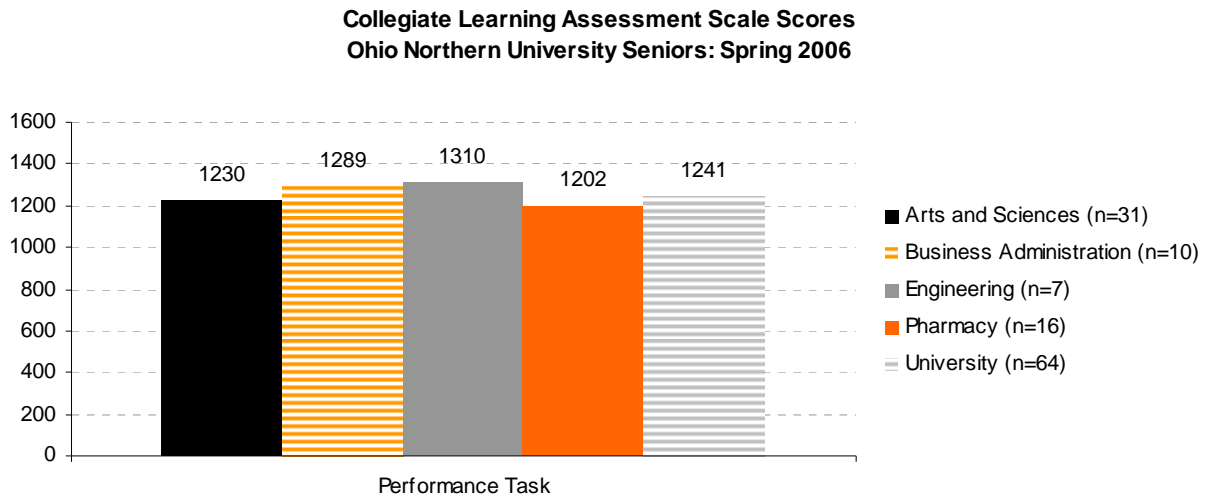
In summary, CLA results from the 2006 seniors/P4s indicate that the majority of students (71%) performed at or above the expected level for the analytic writing task. Cross-sectional results from the 2005 freshmen and 2006 seniors/P4s indicates an estimate of the value added as being above the expected level for the analytic writing task. Preliminary longitudinal results from the 2005 freshmen and 2007 rising juniors indicate a moderate increase in performance for the analytic writing task. NSSE ratings for writing are less than a 3.00 (2.86) and are significantly lower than all three comparison groups. LSSSE ratings are a 3.09 and are comparable to the comparison groups. CSS results indicate that less than one-third (23.6%) of graduating students consider their writing skills to be “much stronger” compared to when they started, which is slightly lower than the comparison group. Ratings pertaining to writing from the alumni survey are 3.08, while employers report graduates’ demonstration of written communication skills at a 3.43. GRE scores indicate the performance of Ohio Northern students at the 53rd percentile for verbal skills and the 53rd percentile for writing. Course-embedded assessments for writing indicate results lower than a 3.0 in English courses and lower performances in grammar and writing in Communication Arts’ courses.

Lastly, NSSE and LSSSE ratings for speaking are below a 3.00 (2.93 for NSSE and 2.87 for LSSSE) and are comparable to the average ratings for all comparison groups. Over one-third (40.6%) of graduating students on the CSS rate their speaking abilities as “much stronger”, which is a slightly higher percentage than the comparison group. Alumni rate their development in speaking and presentation skills at 3.14 while employers rate graduates’ demonstration of speaking at 3.38. Results from the course-embedded assessments indicate strong performance in making speeches.

2. Solve problems analytically and creatively. Six of the eleven measures demonstrate student learning in terms of this objective. Results from each assessment measure follow.

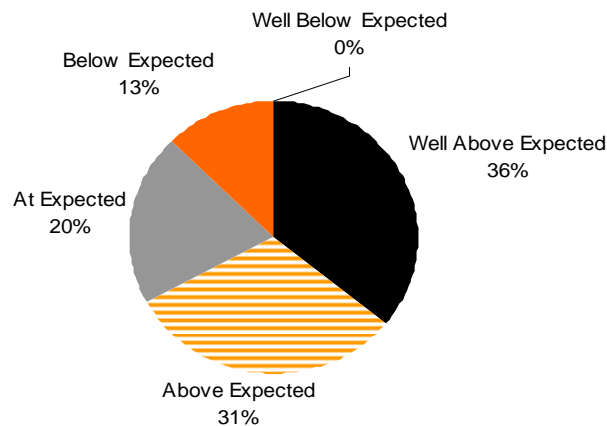
a. Collegiate Learning Assessment (CLA)

Cross-Sectional Results (Spring 2006 Seniors). The following table presents the performance task results (n=64) from the seniors/P4s participating in the cross-sectional approach to the Collegiate Learning Assessment (spring 2006).



Expected performance levels for the Collegiate Learning Assessment (CLA) are calculated by comparing seniors' actual CLA scores to their expected CLA scores. Expected scores are derived by examining the typical relationship between average SAT scores (or average ACT scores converted to the SAT scale) and average CLA scores. For example, college freshmen with an average SAT score of 1290 would be expected to have an average CLA score of 1235. If their actual average CLA score is substantially higher than that, then their performance would be categorized as scoring higher than expected. The chart below provides the percentage of ONU seniors performing at each expected level for the performance task and indicates that the majority of ONU seniors (87%) performed at or above the expected level.

**Collegiate Learning Assessment Performance Task Performance Levels
Ohio Northern University Seniors: Spring 2006 (n=64)**



Cross-Sectional Results: Value-Added (Fall 2005 Freshmen to Spring 2006 Seniors). To estimate the “value added” for the 2005-06 cross-sectional administration of the performance task, CLA calculates a difference score, which is derived by comparing the performance difference between the freshmen and senior/P4s tested during the 2005-06 academic year. The following table provides the difference score and corresponding performance level for the performance task. Larger positive difference scores indicate that the seniors did especially well relative to freshmen. The difference score of .70 for the performance task indicates an estimate of the value added at Ohio Northern University as being at the expected level.

	Mean Score-Freshmen	Mean Score-Seniors/P4s	Difference Score	Performance Level
Performance Task	1096	1241	0.70	At

Longitudinal Results: Value-Added (Fall 2005 Freshmen to Spring 2007 Rising Juniors). Preliminary findings from the longitudinal CLA results, which examine the difference in scores of students tested as freshmen and again as rising juniors, indicate a moderate increase in performance for the performance task. The following table provides the results for the longitudinal analysis. The “effect size column indicates how much change occurred between the fall of 2005 and spring of 2007. The larger the positive effect size, the greater the improvement. Effect sizes greater than 0.50 and 1.00 are generally considered “large” and “very large”, respectively. Negative effect sizes would indicate that the students scored higher as freshmen than they did as rising juniors.

	N	Mean Score Fall 05	Std. Dev.	Mean Score Spring 07	Std. Dev.	Diff. in Mean Scores	Std. Dev.	Effect Size
Performance Task	126	1129	165	1213	175	85	201	0.46

b. National Survey of Student Engagement (NSSE)/Law School Survey of Student Engagement (LSSSE)

Results from the National Survey of Student Engagement (spring 2007) indicate that Ohio Northern senior/P4 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Thinking critically and analytically	Sig.	Analyzing quantitative problems	Sig.	Solving complex real-world problems	Sig.
Ohio Northern Seniors/P4s (n=291)	3.38		3.17		2.69	
Arts and Sciences (n=133)	3.32		2.89		2.47	
Business (n=36)	3.28		3.11		2.81	
Engineering (n=52)	3.63		3.71		2.61	
Pharmacy (n=70)	3.34		3.27		2.67	
Selected Peers	3.44		3.07		2.77	
Carnegie Peers	3.34		3.04		2.72	
NSSE 2006	3.33		3.02		2.72	

4=very much; 3=quite a bit; 2=some; 1=very little

*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

Results from the Law School Survey of Student Engagement (spring 2007) indicate that Ohio Northern L3 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Thinking critically and analytically	Sig.	Developing legal research skills	Sig.	Solving complex real-world problems	Sig.
Ohio Northern L3s (n=48)	3.35		3.28		2.65	
Selected Peers	3.34		3.22		2.59	
Less than 500 students	3.30		3.12		2.58	
Private-Religious	3.28		3.14		2.54	
LSSSE 2006	3.25		3.04		2.53	

4=very much; 3=quite a bit; 2=some; 1=very little

*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

c. College Senior Survey

Results from the College Senior Survey (spring 2005) indicate the percentage of Ohio Northern graduating student respondents reporting “much stronger” abilities compared to when they first started college in the following areas:

	Analytic and problem-solving skills (%)	Ability to think critically (%)
Ohio Northern Graduating Students (n=106)	43.4	50.9
Arts and Sciences (n=53)	39.6	58.5
Business (n=13)	15.4	30.8
Engineering (n=16)	68.8	50.0
Pharmacy (n=24)	50	45.8
Selected Peers	N/A	N/A
All Private 4-Year Colleges	43.6	47.9

d. Alumni and Employer Survey

Results from the Alumni Survey (spring 2005) indicate the extent to which alumni respondents (from 1999-2002) consider their experience at Ohio Northern contributed to their development for the following areas.

	Thinking critically and analytically	Thinking creatively	Problem-solving skills
Ohio Northern Graduates (n=399)	3.28	2.75	3.15
Arts and Sciences (n=178)	3.19	2.84	3.02
Business (n=46)	3.02	2.54	3.04
Engineering (n=59)	3.42	2.62	3.51
Pharmacy (n=116)	3.43	2.75	3.23

4=very much; 3=quite a bit; 2=some; 1=very little

Results from the Employer Survey (spring 2005) indicate the extent to which employers of alumni respondents (from 1999-2002) consider the ONU graduate in their employ demonstrates the following:

	Thinking critically and analytically	Thinking creatively	Problem-solving skills
Employers of Ohio Northern Graduates (n=137)	3.51	3.23	3.34
Business-related (n=22)	3.46	3.18	3.27
Engineering-related (n=20)	3.40	2.85	3.05
Government (n=9)	3.89	3.63	3.71
Health-related (n=50)	3.61	3.31	3.46
Non-profit (n=10)	3.60	3.30	3.10
Education (n=26)	3.28	3.28	3.36

4=very much; 3=quite a bit; 2=some; 1=very little

e. Graduate Record Exam (GRE)

Graduate Record Exam results for the 2006-07 year indicate that the average quantitative score for ONU students (n=53) was 608 (out of 800) indicating an average performance compared to national test-takers at the 51st percentile.

f. Summary

In summary, CLA results from the 2006 seniors/P4s indicate that the majority of students (87%) performed at or above the expected level for the performance task. Cross-sectional results from the 2005 freshmen and 2006 seniors/P4s indicate an estimate of the value added as being at the expected level for the performance task. Preliminary longitudinal results from the 2005 freshmen and 2005 rising juniors indicate a moderate increase in performance for the performance task. NSSE ratings for thinking critically and analytically and analyzing quantitative problems are above a 3.00 and are generally comparable to the comparison ratings. LSSSE ratings for thinking critically and analytically and developing legal research skills are above a 3.00 and are generally comparable to the comparison ratings. NSSE and LSSSE ratings for solving real-world problems are less than a 3.00 (2.69 for NSSE and 2.65 for LSSSE) and are comparable to comparison group ratings. Over 40% of graduating students on the CSS report their growth in analytic and problem-solving skills (43.4%) and the ability to think critically (50.9%), which is comparable to the comparison group. Alumni rate thinking critically and analytically (3.28) and problem-solving skills (3.15) higher than a 3.00, however they rate thinking creatively lower at a 2.75. Employers rate graduates' demonstration of skills higher than a 3.00 in all three areas. GRE scores indicate the performance of Ohio Northern students at the 51st percentile for quantitative skills

3. Demonstrate knowledge, skills, and values for a program of study or career. Four of the eleven measures demonstrate student learning in terms of this objective. Results from each assessment measure follow. Additionally, each academic program is required to maintain and report assessment results. Please refer to individual program assessment reports for further discussion on results pertaining to this learning objective.

a. Discipline-Specific Comprehensive Exam

Three hundred sixteen Ohio Northern University students or graduates took a Comprehensive Exam in 2006-07. Of the 316 students taking a comprehensive examination, 294 (or 93%) passed. Results from individual comprehensive exams for 2006-07 are as follows:

	ONU Pass Rate (%)	Ohio Pass Rate (%)	National Pass Rate (%)
Athletic Training Board (n=3)	60	N/A	47
Clinical Laboratory Science Board (n=10)	80	N/A	75
Education Praxis II (n=30)	98	95	N/A
Education Praxis III (n=21)	95	99	N/A
Engineering Fundamentals (n=57)	81	N/A	78
Law Bar (n=43)	93	86	N/A
Pharmacy Board (n=130)	98	95	N/A

In addition, the mean overall student score for business students on the ETS[®] Major Field Test in Business(n=74) indicated performance at the 93rd percentile nationally. Ninety-three percent of biology students taking the ETS[®] Major Field Test in Biology (n=49) scored at or above the department's benchmark of 140 or better.

b. Placement Rates

The Placement Rates (percentage of graduates employed or enrolled in graduate programs 6 months after commencement) by college for the class of 2007 are as follows:

	Graduate Study (%)	Employed (%)	Total Placement (%)
Arts and Sciences (n=216)	29	61	89
Business Administration (n=63)	3	86	89
Engineering (n=72)	11	86	97
Law* (n=111)	2	95	97
Pharmacy (n=152)	1	98	99

* for the class of 2006 collected 9 months after commencement

c. National Survey of Student Engagement (NSSE)/Law School Survey of Student Engagement (LSSSE)

Results from the National Survey of Student Engagement (spring 2006) indicate that Ohio Northern senior/P4 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Acquiring job or work-related knowledge and skills	Sig.
Ohio Northern Seniors/P4s (n=291)	3.12	
Arts and Sciences (n=133)	3.02	
Business (n=36)	2.92	
Engineering (n=52)	3.19	
Pharmacy (n=70)	3.37	
Selected Peers	3.12	
Carnegie Peers	3.13	

NSSE 2006	3.02
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4=very much; 3=quite a bit; 2=some; 1=very little

*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

Results from the Law School Survey of Student Engagement (spring 2007) indicate that Ohio Northern L3 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Acquiring job or work-related knowledge and skills	Sig.
Ohio Northern L3s (n=48)	2.85	
Selected Peers	2.83	
Less than 500 students	2.77	
Private-Religious	2.73	
LSSSE 2006	2.69	

4=very much; 3=quite a bit; 2=some; 1=very little

*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

d. College Senior Survey (CSS)

Results from the College Senior Survey (spring 2005) indicate the percentage of Ohio Northern graduating student respondents reporting “much stronger” abilities compared to when they first started college in the following areas:

	Knowledge of a particular field or discipline (%)
Ohio Northern Graduating Students (n=106)	76.4
Arts and Sciences (n=53)	79.2
Business (n=13)	53.8
Engineering (n=16)	87.5
Pharmacy (n=24)	75.0
Selected Peers	N/A
All Private 4-Year Colleges	65.4

e. Summary

In summary, discipline-specific comprehensive examination results demonstrate high levels of proficiency in knowledge and skills related to specific programs. Placement results indicate overall placement rates of 95% or higher in all colleges. NSSE ratings are over a 3.00 for acquiring job-related knowledge and skills (3.12), which is comparable to the comparison ratings. LSSSE ratings (2.85) are below a 3.00 and are comparable to comparison ratings. Three out of four (76.4%) CSS respondents indicate their knowledge of a particular field or discipline as “much stronger”, which is slightly higher than the comparison group.

4. Know and rely on themselves. Four of the eleven measures demonstrate student learning in terms of this objective. Results from each assessment measure follow.

a. National Survey of Student Engagement (NSSE)/Law School Survey of Student Engagement (LSSSE)

Results from the National Survey of Student Engagement (spring 2006) indicate that Ohio Northern senior/P4 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Learning on your own	Sig.	Understanding yourself	Sig.
Ohio Northern Seniors/P4s (n=291)	3.04		2.66	
Arts and Sciences (n=133)	2.98		2.72	
Business (n=36)	2.97		2.94	
Engineering (n=52)	3.15		2.53	
Pharmacy (n=70)	3.09		2.66	
Selected Peers	3.04		2.95	**
Carnegie Peers	3.01		2.80	
NSSE 2006	3.00		2.78	

4=very much; 3=quite a bit; 2=some; 1=very little

*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

Results from the Law School Survey of Student Engagement (spring 2007) indicate that Ohio Northern L3 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Learning on your own	Sig.	Understanding yourself	Sig.
Ohio Northern L3s (n=48)	3.28		2.78	
Selected Peers	3.19		2.67	
Less than 500 students	3.23		2.73	
Private-Religious	3.16		2.64	
LSSSE 2006	3.18		2.66	

4=very much; 3=quite a bit; 2=some; 1=very little

*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

b. Alumni and Employer Surveys

Results from the Alumni Survey (spring 2005) indicate the extent to which alumni respondents (from 1999-2002) consider their experience at Ohio Northern contributed to their development for the following areas:

	Intellectual self-confidence	Self-understanding	Learning on your own	Working independently
Ohio Northern Graduates (n=399)	3.01	2.62	3.14	3.09
Arts and Sciences (n=178)	3.03	2.70	3.14	3.12
Business (n=46)	2.98	2.57	2.85	2.83
Engineering (n=59)	2.75	2.33	3.00	2.77
Pharmacy (n=116)	3.14	2.65	3.33	3.32

4=very much; 3=quite a bit; 2=some; 1=very little

Results from the Employer Survey (spring 2005) indicate the extent to which employers of alumni respondents (from 1999-2002) consider the ONU graduate in their employ demonstrates the following:

	Intellectual self-confidence	Self-understanding	Learning on your own	Working independently
Employers of Ohio Northern Graduates (n=137)	3.31	3.13	3.52	3.57
Business-related (n=22)	3.36	3.10	3.45	3.50
Engineering-related (n=20)	3.22	2.82	3.35	3.40
Government (n=9)	3.56	3.40	3.67	3.75
Health-related (n=50)	3.33	3.23	3.59	3.62
Non-profit (n=10)	3.22	3.00	3.60	3.70
Education (n=26)	3.23	3.17	3.50	3.58

4=very much; 3=quite a bit; 2=some; 1=very little

c. Residence Life Survey

Results from the Residence Life Survey (2007) indicate the extent to which on-campus student respondents consider their campus living experiences contributed to their personal growth and development in the following area:

	Understanding yourself
On-campus students (n=680)	2.70

4=very much; 3=quite a bit; 2=some; 1=very little

d. Summary

In summary, NSSE and LSSSE ratings for learning on your own are above a 3.00 and are comparable to the comparison ratings. NSSE and LSSSE ratings for understanding yourself (2.66 for NSSE and 2.78 for LSSSE) are lower than a 3.00 and NSSE ratings are significantly lower than the peer comparison rating (2.95). Alumni rate intellectual self-confidence, learning on your own, and working independently above a 3.00, however they rate their self-understanding below a 3.00 (2.62). Employers rate graduates' demonstration of skills higher than a 3.00 in all four areas. On-campus students rate their self-understanding below a 3.00 (2.70).

5. Listen, understand, and work with others. Five of the eleven measures demonstrate student learning in terms of this objective. Results from each assessment measure follow.

a. National Survey of Student Engagement (NSSE)/Law School Survey of Student Engagement (LSSSE)

Results from the National Survey of Student Engagement (spring 2006) indicate that Ohio Northern senior/P4 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Working with others	Sig.
Ohio Northern Seniors/P4s (n=291)	3.29	
Arts and Sciences (n=133)	3.21	
Business (n=36)	3.39	
Engineering (n=52)	3.52	
Pharmacy (n=70)	3.23	
Selected Peers	3.26	

Carnegie Peers	3.18	
NSSE 2006	3.14	*

4=very much; 3=quite a bit; 2=some; 1=very little

*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

Results from the Law School Survey of Student Engagement (spring 2007) indicate that Ohio Northern L3 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Working with others	Sig.
Ohio Northern L3s (n=48)	2.52	
Selected Peers	2.52	
Less than 500 students	2.50	
Private-Religious	2.51	
LSSSE 2006	2.40	

4=very much; 3=quite a bit; 2=some; 1=very little

*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

b. College Senior Survey

Results from the College Senior Survey (spring 2005) indicate the percentage of Ohio Northern graduating student respondents reporting “much stronger” abilities compared to when they first started college in the following areas:

	Interpersonal skills (%)
Ohio Northern Graduating Students (n=106)	37.7
Arts and Sciences (n=53)	43.4
Business (n=13)	53.8
Engineering (n=16)	18.8
Pharmacy (n=24)	29.2
Selected Peers	N/A
All Private 4-Year Colleges	39.2

c. Alumni and Employer Surveys

Results from the Alumni Survey (spring 2005) indicate the extent to which alumni respondents (from 1999-2002) consider their experience at Ohio Northern contributed to their development for the following areas:

	Social self-confidence	Listening skills	Working with others
Ohio Northern Graduates (n=399)	2.95	2.95	3.32
Arts and Sciences (n=178)	3.04	2.99	3.27
Business (n=46)	2.83	2.76	3.41
Engineering (n=59)	2.73	2.70	3.43
Pharmacy (n=116)	2.96	3.09	3.31

4=very much; 3=quite a bit; 2=some; 1=very little

Results from the Employer Survey (spring 2005) indicate the extent to which employers of alumni respondents (from 1999-2002) consider the ONU graduate in their employ demonstrates the following:

	Social self-confidence	Listening skills	Working with others
Employers of Ohio Northern Graduates (n=137)	3.26	3.40	3.60
Business-related (n=22)	3.36	3.36	3.64
Engineering-related (n=20)	3.11	3.20	3.50
Government (n=9)	3.67	3.67	3.67
Health-related (n=50)	3.30	3.38	3.62
Non-profit (n=10)	2.78	3.50	3.60
Education (n=26)	3.23	3.50	3.58

4=very much; 3=quite a bit; 2=some; 1=very little

d. Residence Life Survey

Results from the Residence Life Survey (2007) indicate the extent to which on-campus student respondents consider their campus living experiences contributed to their personal growth and development in the following area:

	Relationships with others
On-campus students (n=680)	2.90

4=very much; 3=quite a bit; 2=some; 1=very little

e. Summary

In summary, the NSSE rating for working with others (3.29) is above a 3.00 and is significantly higher than the NSSE 2006 comparison group. The LSSSE rating for working with others (2.52) is lower than a 3.00 and comparable to the comparison ratings. Over one-third of CSS respondents (37.7%) indicate their interpersonal skills as “much stronger”, which is comparable to the comparison group. Alumni rate their working with others above a 3.00 (3.32) and rate social self-confidence (2.95) and listening skills (2.95) below a 3.00. Employers rate graduates’ demonstration of skills higher than a 3.00 in all three areas. On-campus students rate their relationships with others below a 3.00 (2.90).

6. Demonstrate technological knowledge and skills. Four of the eleven measures demonstrate student learning in terms of this objective. Results from each assessment measure follow.

a. National Survey of Student Engagement (NSSE)/Law School Survey of Student Engagement (LSSSE)

Results from the National Survey of Student Engagement (spring 2006) indicate that Ohio Northern senior/P4 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Using computing and information technology	Sig.
Ohio Northern Seniors/P4s (n=291)	3.21	
Arts and Sciences (n=133)	3.17	
Business (n=36)	3.42	
Engineering (n=52)	3.44	
Pharmacy (n=70)	2.97	
Selected Peers	3.16	

Carnegie Peers	3.24	
NSSE 2006	3.21	

4=very much; 3=quite a bit; 2=some; 1=very little

*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

Results from the Law School Survey of Student Engagement (spring 2007) indicate that Ohio Northern L3 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Using computing and information technology	Sig.
Ohio Northern L3s (n=48)	2.78	
Selected Peers	2.63	
Less than 500 students	2.58	
Private-Religious	2.51	
LSSSE 2006	2.47	

4=very much; 3=quite a bit; 2=some; 1=very little

*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

b. College Senior Survey

Results from the College Senior Survey (spring 2005) indicate the percentage of Ohio Northern graduating student respondents reporting “much stronger” abilities compared to when they first started college in the following areas:

	Computer skills (%)
Ohio Northern Graduating Students (n=106)	31.1
Arts and Sciences (n=53)	20.8
Business (n=13)	38.5
Engineering (n=16)	62.5
Pharmacy (n=24)	29.2
Selected Peers	N/A
All Private 4-Year Colleges	23.5

c. Alumni and Employer Surveys

Results from the Alumni Survey (spring 2005) indicate the extent to which alumni respondents (from 1999-2002) consider their experience at Ohio Northern contributed to their development for the following areas:

	Technological skills	Computer skills	Information literacy
Ohio Northern Graduates (n=399)	2.73	2.87	2.90
Arts and Sciences (n=178)	2.57	2.72	2.75
Business (n=46)	3.00	3.17	2.71
Engineering (n=59)	3.07	3.12	2.81
Pharmacy (n=116)	2.71	2.83	3.23

4=very much; 3=quite a bit; 2=some; 1=very little

Results from the Employer Survey (spring 2005) indicate the extent to which employers of alumni respondents (from 1999-2002) consider the ONU graduate in their employ demonstrates the following:

	Technological skills	Computer skills	Information literacy
Employers of Ohio Northern Graduates (n=137)	3.28	3.41	3.32
Business-related (n=22)	3.40	3.71	3.26
Engineering-related (n=20)	3.25	3.40	2.88
Government (n=9)	3.33	3.56	3.43
Health-related (n=50)	3.39	3.39	3.49
Non-profit (n=10)	3.11	3.33	3.44
Education (n=26)	3.04	3.17	3.27

4=very much; 3=quite a bit; 2=some; 1=very little

d. Summary

In summary, the NSSE rating for using computing and information technology (3.21) is above a 3.00. The LSSSE rating for using computing and information technology (2.78) is lower than a 3.00 and comparable to the comparison ratings. Approximately one-third of CSS respondents (31.1%) indicate their computer skills as “much stronger”, which is slightly higher than the comparison group. Alumni rate their technological skills (2.73), computer skills (2.87), and information literacy (2.90) below a 3.00. Employers rate graduates’ demonstration of skills higher than a 3.00 in all three areas.

7. Contribute to the good of humankind. Four of the eleven measures demonstrate student learning in terms of this objective. Results from each assessment measure follow.

a. National Survey of Student Engagement (NSSE)/Law School Survey of Student Engagement (LSSSE)

Results from the National Survey of Student Engagement (spring 2006) indicate that Ohio Northern senior/P4 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Contributing to the welfare of your community	Sig.
Ohio Northern Seniors/P4s (n=291)	2.40	
Arts and Sciences (n=133)	2.33	
Business (n=36)	2.50	
Engineering (n=52)	2.33	
Pharmacy (n=70)	2.56	
Selected Peers	2.68	**
Carnegie Peers	2.45	
NSSE 2006	2.42	

4=very much; 3=quite a bit; 2=some; 1=very little

*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

Results from the Law School Survey of Student Engagement (spring 2007) indicate that Ohio Northern L3 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Contributing to the welfare of your community	Sig.
Ohio Northern L3s (n=48)	2.39	
Selected Peers	2.40	
Less than 500 students	2.36	
Private-Religious	2.40	
LSSSE 2006	2.30	

4=very much; 3=quite a bit; 2=some; 1=very little

*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

b. Alumni and Employer Surveys

Results from the Alumni Survey (spring 2005) indicate the extent to which alumni respondents (from 1999-2002) consider their experience at Ohio Northern contributed to their development for the following areas:

	Desire to contribute to the welfare of your community
Ohio Northern Graduates (n=399)	2.52
Arts and Sciences (n=178)	2.59
Business (n=46)	3.33
Engineering (n=59)	2.25
Pharmacy (n=116)	2.63

4=very much; 3=quite a bit; 2=some; 1=very little

Results from the Employer Survey (spring 2005) indicate the extent to which employers of alumni respondents (from 1999-2002) consider the ONU graduate in their employ demonstrates the following:

	Desire to contribute to the welfare of your community
Employers of Ohio Northern Graduates (n=137)	3.02
Business-related (n=22)	2.95
Engineering-related (n=20)	2.22
Government (n=9)	3.43
Health-related (n=50)	3.11
Non-profit (n=10)	3.63
Education (n=26)	3.16

4=very much; 3=quite a bit; 2=some; 1=very little

c. Residence Life Survey

Results from the Residence Life Survey (2007) indicate the extent to which on-campus student respondents consider their campus living experiences contributed to their personal growth and development in the following area:

	Contributing to the welfare of your community
On-campus students (n=680)	2.30

4=very much; 3=quite a bit; 2=some; 1=very little

d. Summary

In summary, NSSE and LSSSE ratings for contributing to the welfare of your community (2.40 for NSSE and 2.39 for LSSSE) are mostly comparable to peer comparison ratings with the exception of the NSSE rating, which is significantly below the average rating for peer institutions. Alumni rate their desire to contribute to the welfare of the community (2.52) below a 3.00. Employers rate graduates' demonstration of contributing to the welfare of the community at a 3.02. On-campus students rate their development in contributing to the welfare of the community below a 3.00 (2.30).

8. Practice truthful and ethical behavior. Two of the eleven measures demonstrate student learning in terms of this objective. Results from each assessment measure follow.

a. National Survey of Student Engagement (NSSE)/Law School Survey of Student Engagement (LSSSE)

Results from the National Survey of Student Engagement (spring 2007) indicate that Ohio Northern senior/P4 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Developing a personal code of values and ethics	Sig.
Ohio Northern Seniors/P4s (n=291)	2.56	
Arts and Sciences (n=133)	2.55	
Business (n=36)	2.61	
Engineering (n=52)	2.50	
Pharmacy (n=70)	2.56	
Selected Peers	2.92	***
Carnegie Peers	2.71	
NSSE 2006	2.65	

4=very much; 3=quite a bit; 2=some; 1=very little

*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

Results from the Law School Survey of Student Engagement (spring 2007) indicate that Ohio Northern L3 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Developing a personal code of values and ethics	Sig.
Ohio Northern L3s (n=48)	2.80	
Selected Peers	2.49	*
Less than 500 students	2.48	*
Private-Religious	2.50	*
LSSSE 2006	2.41	*

4=very much; 3=quite a bit; 2=some; 1=very little

*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

b. Residence Life Survey

Results from the Residence Life Survey (2007) indicate the extent to which on-campus student respondents consider their campus living experiences contributed to their personal growth and development in the following area:

	Developing values and ethics
On-campus students (n=680)	2.40

4=very much; 3=quite a bit; 2=some; 1=very little

c. Summary

In summary, NSSE and LSSSE ratings for developing a personal code of values and ethics (2.56 for NSSE and 2.80 for LSSSE) are below a 3.00 and the NSSE rating is significantly below the peer comparison rating. The LSSSE rating is significantly higher than the comparison groups. On-campus students rate their development of values and ethics below a 3.00 (2.40).

9. Demonstrate cultural understanding and an appreciation for diversity. Five of the eleven measures demonstrate student learning in terms of this objective. Results from each assessment measure follow.

a. National Survey of Student Engagement (NSSE)/Law School Survey of Student Engagement (LSSSE)

Results from the National Survey of Student Engagement (spring 2006) indicate that Ohio Northern senior/P4 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Understanding people of other racial and ethnic backgrounds	Sig.
Ohio Northern Seniors/P4s (n=291)	1.96	
Arts and Sciences (n=133)	2.00	
Business (n=36)	2.19	
Engineering (n=52)	1.93	
Pharmacy (n=70)	1.95	
Selected Peers	2.46	***
Carnegie Peers	2.57	***
NSSE 2006	2.57	***

4=very much; 3=quite a bit; 2=some; 1=very little

*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

Results from the Law School Survey of Student Engagement (spring 2006) indicate that Ohio Northern L3 respondents rate the extent to which ONU contributed to their growth and development as follows:

	Understanding people of other racial and ethnic backgrounds	Sig.
Ohio Northern L3s (n=48)	2.20	
Selected Peers	2.10	

Less than 500 students	2.15
Private-Religious	2.10
LSSSE 2006	2.13

4=very much; 3=quite a bit; 2=some; 1=very little

*p<.05 **p<.01 ***p<.001 indicates that the overall University average was significantly different from comparison groups

b. College Senior Survey

Results from the College Senior Survey (spring 2005) indicate the percentage of Ohio Northern graduating student respondents report “much stronger” abilities compared to when they first started college in the following areas:

	Knowledge of people of different races/cultures (%)	Ability to get along with people of different races/cultures (%)	Understanding of global issues (%)
Ohio Northern Graduating Students (n=106)	26.4	23.6	18.9
Arts and Sciences (n=53)	34.0	30.2	24.5
Business (n=13)	30.8	23.1	30.8
Engineering (n=16)	18.8	18.8	12.5
Pharmacy (n=24)	12.5	12.5	4.2
Selected Peers	N/A	N/A	N/A
All Private 4-Year Colleges	28.7	23.6	27.8

c. Alumni and Employer Surveys

Results from the Alumni Survey (spring 2005) indicate the extent to which alumni respondents (from 1999-2002) consider their experience at Ohio Northern contributed to their development for the following areas:

	Understanding of global issues	Appreciation for different points of view	Working with persons from diverse backgrounds	Knowledge of people from different cultures and backgrounds
Ohio Northern Graduates (n=399)	2.21	2.69	2.38	2.28
Arts and Sciences (n=178)	2.26	2.80	2.39	2.32
Business (n=46)	2.74	2.78	2.50	2.54
Engineering (n=59)	1.82	2.43	2.10	1.87
Pharmacy (n=116)	2.12	2.62	2.45	2.32

4=very much; 3=quite a bit; 2=some; 1=very little

Results from the Employer Survey (spring 2005) indicate the extent to which employers of alumni respondents (from 1999-2002) consider the ONU graduate in their employ demonstrates the following:

	Understanding of global issues	Appreciation for different points of view	Working with persons from diverse backgrounds	Knowledge of people from different cultures and backgrounds
Employers of Ohio Northern Graduates (n=137)	2.78	3.18	3.25	2.97
Business-related (n=22)	2.86	3.29	3.18	2.95
Engineering-related (n=20)	2.06	2.74	2.84	2.26
Government (n=9)	3.17	3.00	3.78	3.14
Health-related (n=50)	2.91	3.20	3.29	3.04
Non-profit (n=10)	3.00	3.40	3.20	3.25
Education (n=26)	2.82	3.33	3.40	3.26

4=very much; 3=quite a bit; 2=some; 1=very little

d. Residence Life Survey

Results from the Residence Life Survey (2007) indicate the extent to which on-campus student respondents consider their campus living experiences contributed to their personal growth and development in the following area:

	Understanding people of other racial and ethnic backgrounds	Understanding people with different beliefs, opinions, or values
On-campus students (n=680)	2.10	2.40

4=very much; 3=quite a bit; 2=some; 1=very little

e. Summary

In summary, NSSE and LSSSE ratings for understanding people of other racial and ethnic backgrounds (1.96 for NSSE and 2.20 for LSSSE) are well below a 3.00 and the NSSE ratings are significantly lower than the ratings for the comparison groups. Approximately one-fourth of CSS respondents indicate their knowledge of people of different races/cultures (26.4%), ability to get along with people of different races/cultures (23.6%) as “much stronger” which is almost double the percentage responding as such last year. Less than 20% of CSS respondents indicate their understanding of global issues (16.8%) as “much stronger” which is lower than the comparison group. Alumni rate their understanding of global issues (2.21), appreciation for different points of view (2.69), working with persons from diverse backgrounds (2.38), and knowledge of people from different cultures and backgrounds (2.28) below a 3.00. Employers rate graduates’ demonstration of skills lower than a 3.00 for understanding of global issues (2.78) and knowledge of people from different cultures and backgrounds (2.97). Employers rate graduates’ demonstration of skills higher than a 3.00 for appreciation for different points of view (3.18) and working with persons from diverse backgrounds (3.25). On-campus students rate their understanding of people of other racial and ethnic backgrounds and understanding of people with different beliefs, opinions, or values below a 3.00 (2.10 and 2.40, respectively).

III. PROGRAMMATIC /OPERATIONAL ADJUSTMENTS

A. Proposed *adjustments*, if any, to the program or the program’s operations in order to narrow the gaps identified between learning objectives and actual outcomes.

To summarize, the results clearly demonstrate that Ohio Northern University has been successful in preparing students to:

- Solve problems analytically and creatively
- Demonstrate knowledge, skills and values for a program of study or career
- Listen, understand, and work with others
- Demonstrate technological knowledge and skills

For the following learning objectives, the results are more ambiguous and provide contradictory findings pertaining to the University demonstrating its success in preparing students to:

- Think and express themselves clearly
- Know and rely on themselves

Finally, the results clearly demonstrate that Ohio Northern University has not been as successful in preparing students to:

- Contribute to the good of humankind
- Practice truthful and ethical behavior
- Demonstrate cultural understanding and an appreciation for diversity

This year's results were similar to the findings from last year's reports. Based upon the results from last year's report, the University Assessment Committee requested that the five colleges, the University Steering Committee on General Education, and the Office of Student Affairs to propose adjustments by December 3, 2007 that would address the gaps between expected performance and actual results. These adjustments could be programmatic or could propose additional ways to collect data for assessment purposes. A summary of the proposed adjustments as presented in the December 3rd reports follows.

1. Colleges. Each of the five colleges prioritized items found to be below the minimum standards of performance, examined its curricular (major and general education) and co-curricular programs in terms of the prioritized items, and developed ways for the college to address the gaps in learning.

The Getty College of Arts and Sciences selected writing, speaking, and the demonstration of cultural understanding and an appreciation for diversity. To address the gaps identified in writing and speaking, the college sought to develop additional direct measures for data collection. The college developed three course-embedded assessments in five of its commonly-taken general education courses: Writing 1, Writing 2, Great Works, Interpersonal Communication, and Public Speaking. By seeking to collect data in these general education courses, the results may provide a better understanding of where the problems with writing and speaking may be occurring. The results from the pilot administration of the course-embedded assessments are presented in the results section of this report and did confirm lower performance in the writing area, while demonstrating higher levels of performance in speaking. The College of Arts and Sciences is also considering and discussing a cultural competency portfolio requirement for graduation. By incorporating required engagement in and intentional reflection on cultural experiences, it is

believed that the students would make a better connection between their experiences and their growth and development in this area. The college plans to continue with the course-embedded assessments. Due to the time and resources involved in launching a cultural competency portfolio and considering the possible revision to general education, the college is planning to wait on this item until the recommendations for general education are proposed.

The Dicke College of Business Administration selected writing, problem-solving, and practicing truthful and ethical behavior. The Committee has adopted a completely revised core curriculum focused on developing a business plan that will develop improved problem-solving skills plus emphasize the written communication of the business proposal. The college is also participating in the proposed revision of the General Education curriculum, which it hopes will result in improved writing skill development. Further ideas for improvement include requiring the Professional Writing course, designing significantly stronger requirements for junior/senior writing assignments (both long and particularly short business writing) into the revised core. Beyond the freshman Ethics course, including ethics units in selected core courses (videos and Rokeach Values Survey, and explicit inclusion of ethics concerns in the capstone and other), writing and posting on the DCBA website a DCBA Code of Ethics (based on ONU handbooks, cooperatively as students and faculty or as a joint project of several core courses) are further options to focus on students' personal values and ethical awareness.

The Smull College of Engineering selected writing, speaking, and understanding global issues. The college's plans to address each item are as follows:

Speaking Abilities. In fall quarter, all engineering majors enroll in GE 104: Freshman Engineering 1. Within this course, each student is required to make a one-minute engineering presentation. The topic can be either a famous engineer, a newsworthy event related to engineering, a definition of a technical term, or a demonstration of a device. A common assessment rubric is utilized to provide feedback on the following areas: responsiveness to the audience, speech patterns, verbal rhetoric, and physical.

In winter quarter, all engineering majors enroll in GE 105: Freshman Engineering 2. Beginning in 2008-09, students will be asked to individually choose and read a monthly professional engineering society article. Students will then write a one-page summary of this article. The articles will be chosen from a list that has a focus on global issues. Students will then be assigned to teams, and each team will present one of their articles to the class in a five-minute presentation, with each student participating in the team presentation.

During the sophomore year, all engineering students take general engineering science courses such as GE 213: Dynamics. During these types of courses in 2008-09, it will be encouraged that students complete some problems at the board and present the proper problem solution. This technique is currently in utilization within other courses (such as ECCS 472: Engineering Economy and ME 382: Engineering Analysis), but this will ensure all students have this exposure at an earlier point in their studies.

Writing Abilities. In 2008-09, the departments will be encouraged to incorporate a revised system of writing assignments within their courses. For instance, a student is commonly asked to write a lab report and it is then graded by the professor. Currently, this ends the evaluation process. It is proposed that the student would then incorporate the professor's markings and suggestions for improvement and resubmit the document. Obviously, the original grade will be counted more heavily in the grading process in order to avoid professors becoming proof-readers. However, this should allow students the opportunity to practice strengthening their writing. This technique is utilized in some junior and senior courses (ME 382: Engineering Analysis and ECCS 404: Senior Design Seminar), but would be well-suited to the freshman engineering sequence of GE 104-105-106.

The college is considering encouraging more individual writing assignments throughout the curriculum. This will be implemented on a department basis. Currently, the majority of writing assignments are done by teams of students.

The college is also considering requiring at least one Communication Skills Center assignment per year throughout the curricula.

Understanding Global Issues. The college is considering : 1) Encouraging external speakers to come to campus for either professional society meetings or the professional hour (Tuesdays at 1:00); 2.) Identifying possible Spotts Lecture topics that relate strongly to global issues; 3.) Linking the freshman GE 105 article assignment (mentioned prior) to a topic of global nature; 4.) Specifying a requirement for a general education elective that supports global understanding; and 5.) Encouraging faculty to identify and discuss issues of global impact or current events within their classrooms as appropriate.

The Raabe College of Pharmacy selected speaking abilities, solving real world problems, and cultural competence. Their proposed adjustments are as follows:

Speaking Abilities. The Patient Care Assessment Module (PCAM) course series for several years has utilized a format designed to assist students with communication and problem solving skills. Theses Video Interviewed Patient Examination and Review (VIPER) sessions video-taped students while they were interacting with faculty members who portrayed patients and/or patient care providers. A faculty member then reviewed and critiqued each of these video-taped interviews and consulted with the student regarding their communication abilities, problem-solving abilities, and a variety of additional interpersonal skills.

The recent remodeling, technical upgrading, and shifting of philosophy from "pharmaceutical laboratory" to "patient skills center" has provided the college an opportunity to adjust the methodologies and educational philosophies associated with the PCAM course series. New physical accouterments and technologies within the center facilitate a more realistic setting for patient/pharmacist interactions. The instructor of record has taken advantage of this setting by recruiting practicing pharmacists from off-campus sites to portray patients. These pharmacists bring with them a wealth of real-world problems for reenactment within this setting.

The technological additions permit the instructor to digitally record each student and provide that student with a DVD of the student/patient interaction for their personal self-assessment prior to a formal review with the instructor of record. Faculty members have anecdotally found students to be more critical via self-assessment than faculty are in the review of these digitally recorded interactions. The outcomes of this exercise include improved interpersonal communication, and problem identification along with critical thinking and problem solving abilities.

A number of module course coordinators have incorporated and are routinely modifying the various group presentation assignments designed to facilitate students' abilities to work within groups on a variety of projects designed to challenge and improve skills in literature review, presentations to peer group members, and group problem solving dynamics.

Solving Real-World Problems. As identified in the previous section, a number of curricular course assignments and projects are designed to accomplish multiple goals and outcomes. Group projects reflect the real-world team approach to modern medicine's treatment practices. Patient care is maximized when a team of health care practitioners is working synchronously to resolve the numerous challenges and problems which present themselves every day of professional practice. Successful health-care team members have honed their interpersonal skills, critical-thinking and problem solving skills, diplomacy abilities, self-confidence, literature searching and reviewing skills, in preparation for and completion of these assignments.

Cultural Competency. Through literature review and a variety of interactions at professional meetings college administrators and faculty had already identified "cultural competency" as a necessary addition to our pharmacy program. One faculty member had already begun to incorporate an introduction to cultural competency within his lecture materials. The Assistant Dean of Pharmacy identified an educational institute focused on this topic and solicited and obtained support from the Dean of Pharmacy to form an interdisciplinary team to attend the institute. Two representatives from the nursing program and three from the pharmacy program attended the four-day educational institute in January 2007. To date, two additional lectures have been incorporated into two different courses within the pharmacy curriculum. It is the intention of our faculty to continue to incorporate additional material over the next few years. A joint venture involving nursing and pharmacy students has been discussed but nothing finalized.

The Pettit College of Law selected writing, speaking and solving real-world problems. The college recently reviewed the first results from the college's writing portfolio assessment. The portfolio program which was initiated with the entering class of 2006 during their first year of law school is a measure of students' growth in writing and legal analysis over the course of their three years in the college. The analysis of the data relating to that class indicates clear improvement in writing skills from year one to year three. The college is also considering recommendations from a college curricular task force as to the following adjustments which are aimed at enhancing the performance of our students in these areas. The recommendations are:

Advanced Legal Writing. The addition of an elective, upper division writing course. The course would be strongly recommended to students with a clear need to improve their legal writing skills. This would address the area of clear and effective writing.

Legal Reasoning. The addition of a required, two-credit course in Legal Reasoning for first year students to enhance their writing skills.

Legislation and Regulation. The addition of a first year course in Legislation and Regulation. This course will require them to acquire a basic understanding of the areas of legislation and regulatory agencies which are a major part of the real-world practice of law.

Certificate Program. The creation of opportunities to cluster courses in areas of law in which the student hopes to practice to allow the growth of expertise in real-world practice and to formally recognize that achievement.

Accounting for Lawyers. The creation of an elective, two-credit accounting for lawyers course to give students with little business background the skills for managing a law office in the real world.

2. The Office of Student Affairs. The Student Affairs staff prioritized two items: developing a personal code of values and ethics and appreciation for different points of view. The division examined its programs in terms of the prioritized items and developed ways in which the staff would address the gaps in learning. The departmental strategies include:

Career Services. Although staff on the Office of Career Services strongly support the two learning objectives selected by the division, the specific focus and responsibilities of this department are not linked to directly moving the objectives forward. Additionally, a majority of the services provided by this staff is predicated on a student's already existing personal values and preferences. Programming to successfully influence undergraduate students' personal values/ethics and appreciation for difference is difficult, given the office's mission/goals. The division's One Minute Assessment Tool is being used with students for all group programs and events. Results, however, are not as easy to link as they are by other departments' initiatives.

Chapel. Assess development of the appreciation of religious difference. The chapel will work in developing questions and strategies to identify ways to assess and improve this development and will add no more than two questions to our annual senior survey.

Counseling Center. The Counseling Center staff addresses these issues with students on a daily basis. Specifically, the majority of services provided by the Counseling Center staff are one-on-one individual counseling sessions with students experiencing emotional or behavioral difficulties.

Dean of Students. Administer our newly developed student code of conduct and disciplinary procedures to assist with values and ethical development.

Greek Life, Student Activities and Leadership. The Office of Greek Life, Student Activities and Leadership attempts to achieve the two prioritized learning objectives through various measures including: the application of pertinent programs, one-on-one student meetings and the holding of disciplinary procedures.

Health Center. Although the two learning objectives selected by the student affairs division do not relate to the programs and services provided through ONU's Student Health Center, it should be noted that operation was assessed, during fall quarter 2007, by a group of students enrolled in the DCBA's Marketing Research class. Key aspects looked at were student satisfaction with current operations and projected support/non-support for some proposed operational changes. A hardcopy report was provided to the VPSA who then provided one to the Director of Institutional Research. Work continues to resolve as many of the concerns as possible, both in the short and longer terms.

Multicultural Development. Consult with staff, faculty, and student leaders for feedback and input on the promotion of diversity throughout campus. Multicultural Development will assist with the organization of a Campus wide Diversity Committee. Finally, the department will promote the integration of multicultural goals throughout the University community.

Residence Life. The Office of Residence Life developed the division's one-minute assessment form with the assistance of the Office of Institutional Research. The office will administer our annual survey, which for the second year includes a section to evaluate the extent to which campus living contributes to a student's personal growth and development. Areas that are analyzed include: developing values and ethics; understanding people with different beliefs, opinions or values; understanding people of other racial and ethnic backgrounds. The department will continue to promote these two objectives through various services and through the ACHIEVEMENT programming model.

3. The University Steering Committee on General Education. The newly appointed General Education Steering Committee was requested to consider all of the items (the gaps identified in addition to the items found to be at or above the minimum standards of performance) in its review of and recommendations for general education at Ohio Northern University. The committee spent the majority of its time thus far in discussion with faculty developing a set of core curricular goals and learning objectives that will serve as the foundation upon which the framework and structure of the proposed general education program is based. The objectives are as follows:

Goal: Thinking

- Objective: Our graduates should be able to understand and evaluate current arguments, theories, or solutions critically, logically, and with an open mind.

- Objective: Our graduates should be able to apply both method and creativity to solve problems.
- Objective: Our graduates should be able to recognize the connections between various disciplines.

Goal: Knowing

- Objective: Our graduates will have knowledge of their own and other cultures as well as knowledge of historical explanations of events.
- Objective: Our graduates will possess basic mathematical and scientific knowledge along with reasonable technological expertise.
- Objective: Our graduates should have knowledge that involves multiple disciplines

Goal: Valuing

- Objective: Our graduates will have an integral and positive effect on society, both in the work place and in their community.
- Objective: Our graduates will have a strong sense of ethical behavior with an understanding that their actions affect the entire community.
- Objective: Our graduates will display a strong knowledge of current events and how they relate to our community, nation, and the world (through knowledge and appreciation of other cultures)

Goal: Expressing

- Objective: Our graduates should be able to engage in successful written and graphical expression.
- Objective: Our graduates should be able to engage in successful oral and interpersonal expression.
- Objective: Our graduates should be able to read effectively.

The University Assessment Committee will continue to monitor the adjustments proposed by each of the colleges and the Office of Student Affairs and the work being completed by the University Steering Committee on General Education. The University Assessment Committee requests that each college and the Student Affairs division complete a follow-up report that will require each area to report on their progress towards proposed adjustments and propose any new adjustments based on the data presented in this report. These reports are due January 16, 2009.

B. Describe the *changes* that need to be made to the assessment plan and practices for the future?

With the scheduled calendar change from quarters to semesters in 2011-12 and the corresponding revision of general education, it is anticipated that the University's plan to assess general education will change drastically in the near future. The Steering Committee has already developed a set of preliminary goals and objectives for the revised general education program (see above) and has indicated that the framework will be developed throughout the remainder of the 2007-08 academic year. The approach for assessing student learning and performance resulting from a redesigned general education curriculum is contingent upon the final model and

framework recommended to the university community by the Steering Committee. Nevertheless, there are several fundamental principles that committee members will consider when designing the assessment protocol:

- Rather than focusing solely on student learning resulting from the redesigned general education curriculum, the assessment approach will take into account the learning resulting from the entire educational experience. This approach is consistent with an outcomes-based approach to general education.
- The assessment protocol will measure student performance in terms of stated learning objectives and outcomes. The university will establish expected standards of performance for each outcome.
- In addition to summative assessments, which will provide a comprehensive and final measurement of student performance, the assessment design will include formative assessments in order to provide regular feedback to the students concerning their progress during their educational experience.
- The assessments will measure the authentic performance of students in situations where they demonstrate their ability to use or apply their knowledge by providing a response through a creative process within a real or simulated context.
- Students will have the opportunity to assess their own growth and development through formal and informal reflection.

Examples of institutions applying the above principles include the following.

- In order to document student progress towards the six principles of undergraduate learning, faculty at Indiana University-Purdue University Indianapolis created e-portfolios to collect and evaluate student learning throughout the educational experience.
- At Bard College, students take part in a moderation process during their sophomore year, which allows them to self-assess their progress and discuss their thoughts with faculty advisors. Their educational experience culminates with a senior capstone project.
- Students from Southern Illinois University Edwardsville complete a capstone project. In addition to assessing student learning in terms of the objectives for each major, the capstones are assessed using rubrics that are aligned with the university's objectives and outcomes for general education.