

freshman level world also foreign work fields way sure engineering understanding mean everything major
interesting specific math social music lot take undecided see teach
majors might language class science lot take college going
different area even took program variety part
anything learned certain school think
just like want subjects course
required tier future idea many back English liberal higher
subject means good students broad taking high Tier
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speaking sciences kind feel years less requirements learn study
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**Interim Report of the General Education Assessment Working Group
September 2010
Table of Contents**

Executive Summary	2
Background	7
Survey of Alumni Results	10
ACT CAAP Test Results.....	14
Structured Interviews of Students Results	21
Faculty Learning Objectives Survey Results	59
Summary of Findings and Conclusions	71
General Education Assessment Working Group Members	76

Cover: A word cloud of Ohio University seniors' transcribed responses to interview questions.

Interim Report of the General Education Assessment Working Group
September 2010
Executive Summary

This report presents a summary of findings from assessments carried out to date by the General Education Assessment Working Group. The Working Group was charged by the Executive Vice President and Provost to collect and organize assessment data on Ohio University's general education program. Sources of data included the Survey of Alumni; ACT Collegiate Assessment of Academic Proficiency (CAAP) standardized tests of English writing, mathematics, and critical thinking; structured interviews of students; and a survey of faculty.

General education learning objectives were identified by Ohio University faculty in 2007 from an analysis of current curricular offerings: <http://www.ohio.edu/learningobjectives/>. This was an AQIP action project, part of Ohio University's accreditation by the Higher Learning Commission (HLC), that shows how we incorporate continuous improvement into the curriculum. This assessment project is another AQIP action project, and it has received strong encouragement from the HLC.

The Survey of Alumni revealed high levels of satisfaction with the different components of the general education program (Tier I freshman writing; Tier I junior writing; Tier I quantitative reasoning; Tier II breadth of knowledge; and Tier III synthesis). Students indicated the greatest satisfaction with Tier II.

The Interview Project asked a sample of seniors about their educational experience at Ohio University and a sample of freshmen about the expectations they held for their Ohio University education. General Education learning objectives and coursework were a particular focus of these interviews.

- The purpose of a college degree and general education were seen as similar by the student interviewees: Seniors and freshmen agreed that a degree helps one to get a better job, makes a person a well-rounded individual, and broadens understanding (beyond a single major course of study) and ability to problem solve and communicate more effectively with diverse groups. Seniors also mentioned a degree demonstrates work ethic and preparation for membership in society. Freshmen reported that a degree provides a broad skill base to use in a career and in life in general. They also indicated a degree prepares a person for a career that is interesting and is not just about earning more money.

- Students view general education as an important part of their education that will help them as they transition into their career after graduation. Students understand the purpose of general education as something that gives them a well-rounded broad based knowledge with specific skills in the areas of writing, oral communication, technology and mathematics. Both seniors and freshmen described general education courses as a core knowledge base that employers and others expect graduates to have and both classes thought general education courses were helpful in deciding on a major.
- General education can help students become successful because the courses help to develop the skills identified with success. For seniors and freshmen, success relates to being a good communicator and working well with others, being motivated and working hard. Seniors and freshmen expected to gain exposure to different subjects and knowledge outside their major and become better communicators through completion of general education courses.
- A significant finding resulting from the senior interviews identified out of class activities such as study abroad experiences, internships, community service activities, and public speakers hosted by the institution as being very influential to the intellectual growth and development of our students.
- While there are many similarities between freshmen and seniors, seniors are more focused on their major and their future careers, whereas freshmen are more focused on finding their major and determining what they need to do well to be successful in college. Freshmen also seek careers that are interesting while seniors focus more on good pay.
- As reflected in the quantitative analysis on Survey of Alumni results, students in different academic programs demonstrate different outcomes. These differences indicate that students in different fields of study will, by the nature of that field of study, graduate with slightly different general education learning outcomes. This analysis does not prove that some students are not receiving the skills, knowledge or learning outcomes, but rather that due to the nature of their chosen field of study, the focus may be more prominent on certain outcomes than it is on others.
- Seniors expressed a desire for a greater variety of general education courses. Students indicated that they wished they could have taken a different mix of courses or at different quarters. This theme was related to the choice of major. Students discussed changing their major as a result of choosing their first major prematurely with general education giving them opportunities to explore other majors. Choice of electives was related to these themes, with students expressing a desire to take different courses that were not required. The least intellectually compelling question provided material to supplement the change themes. Students expressed dissatisfaction with instructional methods that did not engage them in learning. Combining themes, students expressed frustration with courses that were poorly taught, not challenging, or presented with an apparent bias.

Presumably these frustrations could be interpreted as changes they would make in the ways their courses were taught. A few students indicated that they would make no changes at all. Students wished they would have taken a greater variety of courses in and beyond general education, and they expressed a desire for greater engagement in the classes they did take.

- During the interviews students were asked to complete surveys on two different sets of learning objectives, which were mapped from Ohio University's general education program. One set of objectives mapped learning objectives from the Survey of Alumni and asked seniors to rate how effective Ohio University had been in helping them develop each one. The other set of objectives was derived from the NSSE instrument and asked seniors to rate how much Ohio University contributed to their knowledge, skills, and personal development in each one. (Please see p. 6 for the summary charts of students' responses to these questions.)
- Following from these sets of learning objectives, one subgroup examined the objectives that Ohio University seniors said they have gained *most* and *least* from their college education, and the reasons they gave for having selected those objectives. This analysis focused on seniors' *relative ranking* of learning objectives, in terms of the skills and types of knowledge the students felt they had gained most and least, relative to other learning objectives listed in the surveys.
- The learning objectives identified most frequently by seniors as those they have gained *most* from their education include core liberal arts skills in analytic thinking, written and oral communication; job or work-related knowledge/skills and the ability to work effectively in teams; and several learning objectives related to lifelong learning and personal development.
- The learning objectives that seniors most frequently identified as those they have gained *least* include community and civic engagement; voting in local, state, or national elections; liberal arts skills in the areas of artistic/creative expression and appreciation, numeracy, applying scientific methods to understand the natural and physical world; and understanding people of other racial and ethnic backgrounds, and oral communication. (Hence, oral communication emerged **both** as one of the top-ranked objectives that seniors said they had gained *most* from their Ohio University education, and also as one of the top-ranked objectives that other senior students said they had gained *least* from their education.)

A parallel survey also was conducted to learn faculty members' evaluations of learning objectives at Ohio University:

- The learning objectives that the faculty sample evaluated most frequently as important for students to gain included analytic thinking, writing skills, job or work-related knowledge

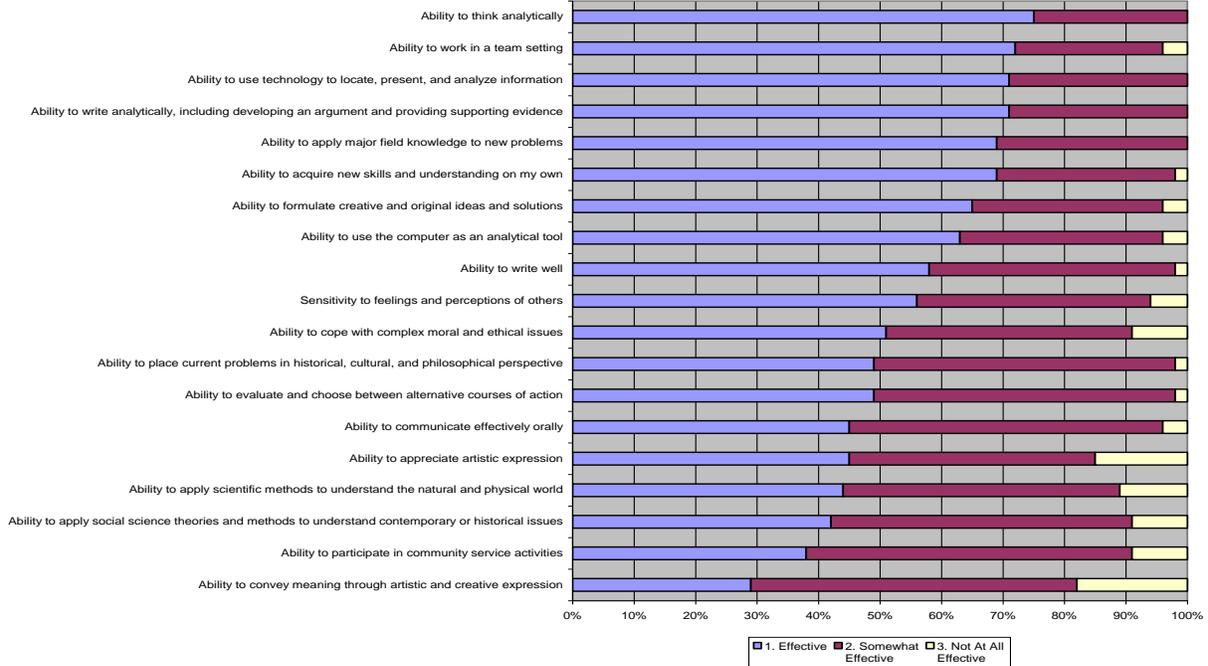
or skills, and the ability to learn effectively on one's own. These learning objectives also emerged as top-ranked learning objectives that seniors felt they had gained most from the university. Similarly, learning objectives related to artistic/creative expression, the ability to apply scientific methods to understand the natural and physical world, the ability to participate in community service activities, and voting in local, state, or national elections emerged as lower-ranked learning objectives in both the faculty and senior samples.

Recommended next steps include:

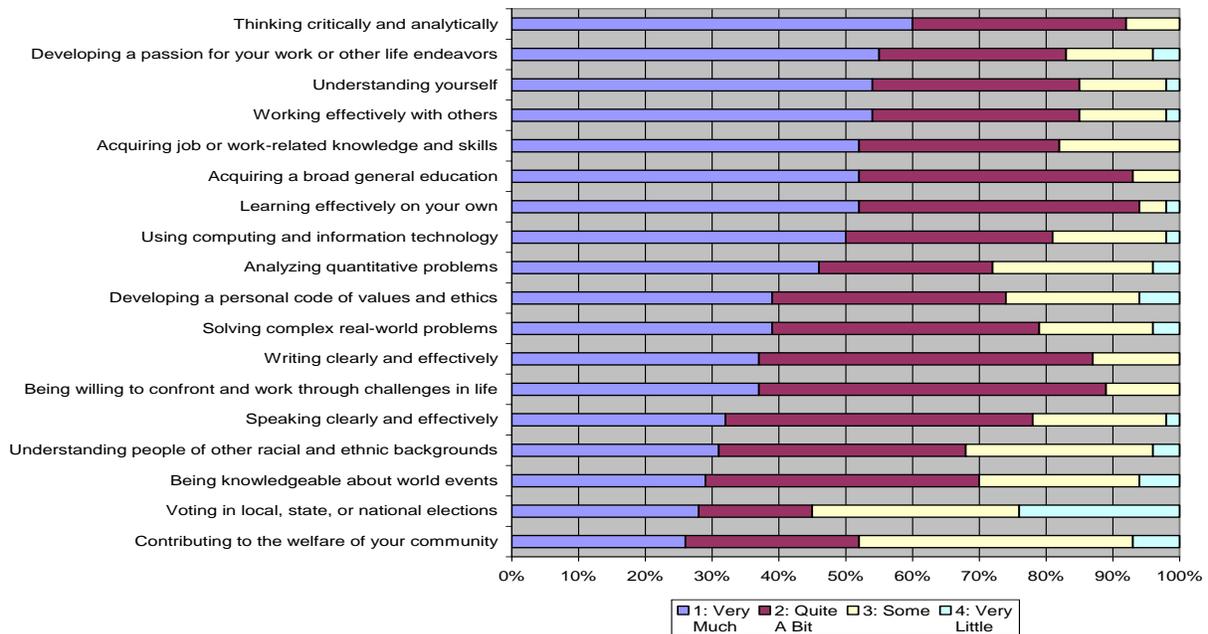
- The ACT CAAP test data need to be analyzed in relation to the richer body of student interview and survey data in response to the USO Chancellor's recommendation to emphasize comparative testing of students. Participation in the Voluntary System of Accountability also requires regular administration of a standardized test such as the CAAP.
- While the general education curriculum seems to be accomplishing most of the learning objectives to some degree, it isn't presented to students in a way that makes it memorable or easy to understand. Presenting general education to students so that they could grasp and explain to each other would help them better understand why they are taking the classes they are taking. A common framework for the general education program, communicated consistently by advisors and Bobcat Student Orientation, is needed.
- We believe it would be very helpful to disseminate findings from this assessment project and provide avenues for university-wide conversations concerning possible core learning objectives for Ohio University. The apparent general pattern of congruence between responses provided by the faculty and senior samples included in this study could provide a helpful jumping-off point for such conversations.
- General education assessment is one of Ohio University's AQIP action projects. The University's continued accreditation through HLC depends, in part, on our commitment to continuously assess general education. Ohio University is undertaking major projects that will compete for attention (academic restructuring, PeopleSoft implementation, and the transition from quarters to semesters). These shorter-term projects should not distract Ohio University's longer-term commitment to assess the quality of its academic programs. Ohio University faculty need to continue to digest the findings in these assessments before embarking on major changes that go beyond incremental changes that these data suggest. Ohio University faculty also need to be involved in the ongoing assessment of general education.

The following charts summarize seniors' responses to the lists of learning objectives mapped from Ohio University's general education program:

Seniors' Ratings of Value of Learning Objectives from Survey of Alumni



Seniors' Ratings of Ohio University's Contribution of Learning Objectives from NSSE



Interim Report of the General Education Assessment Working Group

Background

1980 - 2005

Ohio University Office of Institutional Research collects and disseminates assessment data on general education through outcomes surveys and standardized tests (ACT College Outcomes Measures Program and ACT Collegiate Assessment of Academic Proficiency).

2005-06

General Education Assessment Committee chaired by Phyllis Bernt--recommends systematically assessing general education program using multi-method approach of surveys, tests, and interviews.

2006-07

General Education Learning Objectives Committee chaired by David Ingram & Michael Williford--identifies general education learning objectives from existing curriculum and endorses systematic assessment of learning objectives.

<http://www.ohio.edu/institres/assessments/genedlrnobj2007.pdf>

Ohio Board of Regents/University System of Ohio initiate Student Success Plans; Ohio University produces general education learning objectives and learning objectives for academic programs.

<http://www.ohio.edu/learningobjectives/>

Faculty Senate passed resolution requiring learning objectives in all course syllabi.

2007-08

Ohio IUC presidents sign agreement with USO Chancellor to join Voluntary System of Accountability (VSA), which requires assessment of general education learning outcomes.

<http://www.collegeportraits.org/OH/OU>

Chancellor recommends uniform comparative standardized testing of Universities' general education using the Collegiate Learning Assessment. Universities submit alternative plan to allow for institutional choice in assessment. Chancellor agrees to three-year pilot.

2008-09

General Education Assessment Working Group conducts pilot interviews of Ohio University faculty, maps learning objectives to existing surveys (National Survey of Student Engagement and Survey of Alumni); develops senior interview inventory; interviews 59 seniors.

General Education Assessment Program is chosen as an "Action Project" to support Ohio University's regional accreditation through AQIP.

<http://www.ohio.edu/apaa/OHIOaccreditation.cfm>

2009-10

General Education Assessment Working Group receives charge from Executive Vice President and Provost; develops freshman interview inventory; interviews 91 freshmen; developed faculty learning objectives survey; surveys faculty.

General Education Assessment Interim Report

This report presents a summary of findings from assessments carried out to date by the General Education Assessment Working Group. The Working Group's task was to implement the general education assessment plan. This plan called for a multi-method approach to systematically collect and organize assessment data on Ohio University's general education program. The methods in the plan are the following: Survey of Alumni conducted by the Office of Institutional Research; ACT Collegiate Assessment of Academic Proficiency (CAAP) standardized tests of English writing, mathematics, and critical thinking, conducted by the Office of Institutional Research; and structured interviews of students conducted by Ohio University faculty and staff. In addition, the Executive Vice President and Provost suggested surveying the entire faculty about the University's general education program.

The Survey of Alumni provides general feedback on graduates' levels of satisfaction with their general education curriculum and graduates' assessment of general skills and competencies. ACT CAAP are standardized, nationally normed tests that provide basic comparative student performance information in English writing, mathematics, and critical thinking.

Similar to Richard Light's work in the Harvard Assessment Seminars and reported in the book *Making the Most of College: Students Speak their Minds*, interviews of students yield a rich body of information about students' general education experiences not obtainable by other methods that will help inform faculty about future directions of the general education curriculum. As a way to begin the task of interviewing students on general education, a small group of faculty and staff conducted structured interviews of other faculty on general education expectations and objectives. In addition, the general education learning objectives identified in 2006-07 were mapped to existing assessments used at Ohio University (Survey of Alumni and National Survey of Student Engagement). In fall 2008 the General Education Assessment

Working Group interviewed faculty who taught general education courses. Each of the seven working group members interviewed two full-time faculty who frequently taught Tier I, Tier II, or Tier III courses. A structured interview guide was designed to ask these faculty what their expectations were for Ohio University students, what value they thought students placed on general education, and their own estimation of general education learning objectives. Fourteen faculty were interviewed. These interviews were recorded anonymously, transcribed, and compiled for content analysis. Common themes were identified, which were then used to form the basis for the structured interviews of students later in the year and the on-line survey of faculty the following year.

This report summarizes results from these assessments: Survey of Alumni; ACT CAAP tests; structured interviews of students; and the survey of faculty.

Survey of Alumni

Background and Design

The Survey of Alumni is designed to collect outcomes information on Ohio University graduates about five years after graduation. The Office of Institutional Research conducts the Survey of Alumni. The questionnaire asks, among other things, about core (general education) competencies needed and developed and about graduates' satisfaction with the general education program at Ohio University. The focus of this summary is on bachelor's degree graduates from the classes of 2001-2002 and 2002-2003. The classes of 1997-1998, 1998-1999, 1999-2000, 2000-2001 are presented for comparison.

Each class was surveyed about five years after graduating. In summer 2008 the entire classes of 2001-2002 and 2002-2003 who received bachelor's degrees (for which current addresses were available) were surveyed. A total of 5402 questionnaires were mailed to valid addresses, and 1687 questionnaires were returned for a response rate of 31 percent. The response rate for the previous four classes was about 36 percent. Second and third follow-up mailings were conducted. Demographic information was obtained on the respondents, and they were found to be representative of the graduating classes in terms of sex, academic college, and race. A test for possible non-response bias did not reveal the existence of such bias in the results.

Competencies Needed and Developed

Graduates were asked to indicate which of 15 different abilities or competencies were necessary in their current occupation and to rate how effective Ohio University was in developing them. The results for 2002 and 2003 combined are presented graphically in the following figure. The results from 1998 to 2003 are in descending order of reported need:

(percent responding)	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
The Ability to Communicate Effectively Orally						
Needed	99%	98%	99%	99%	99%	98%
Developed at O.U.	93	93	94	94	95	94
The Ability to Acquire New Skills and Understanding on One's Own						
Needed	99%	98%	99%	98%	98%	98%
Developed at O.U.	96	95	95	96	95	96
The Ability to Evaluate and Choose between Alternatives						
Needed	98%	96%	98%	97%	97%	97%
Developed at O.U.	92	92	94	95	93	93

The Ability to Work in a Team Setting

Needed	95%	96%	96%	97%	95%	96%
Developed at O.U.	94	95	97	96	97	96

The Ability to Think Analytically

Needed	97%	96%	97%	97%	97%	96%
Developed at O.U.	97	98	98	97	98	98

The Ability to Formulate Creative and Original Ideas and Solutions

Needed	94%	94%	95%	95%	94%	93%
Developed at O.U.	93	93	93	95	94	94

Sensitivity to the Feelings and Perceptions of Others

Needed	92%	92%	92%	92%	92%	93%
Developed at O.U.	86	87	87	89	87	89

The Ability to Use the Computer as an Analytical Tool

Needed	90%	89%	91%	91%	88%	92%
Developed at O.U.	85	87	88	89	89	91

The Ability to Write Well

Needed	90%	88%	89%	90%	88%	89%
Developed at O.U.	94	92	93	94	93	94

The Ability to Apply Knowledge from One's Major to New Problems

Needed	82%	83%	84%	84%	85%	83%
Developed at O.U.	92	93	94	92	94	94

The Ability to Organize and Supervise Work of Others

Needed	78%	79%	79%	81%	82%	79%
Developed at O.U.	79	81	80	80	79	83

The Ability to Cope with Complex Moral and Ethical Issues

Needed	80%	77%	80%	74%	75%	76%
Developed at O.U.	85	85	85	87	83	86

The Ability to Participate in Community Service Activities

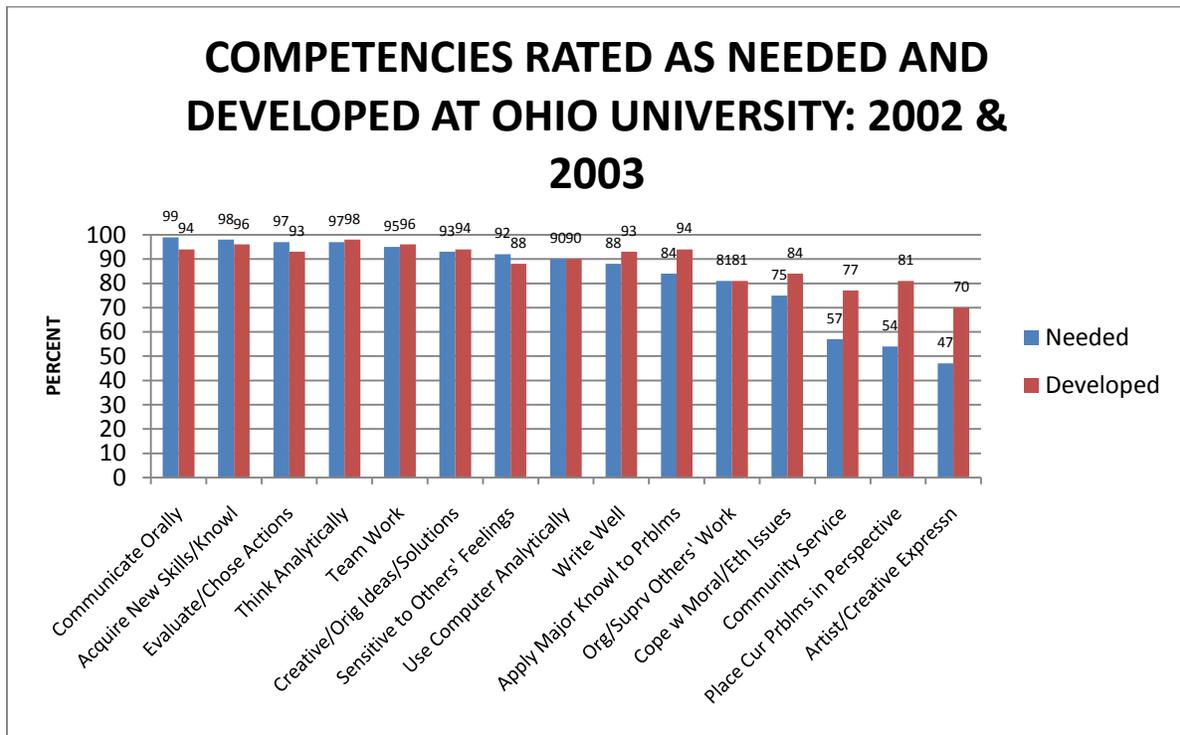
Needed	55%	56%	53%	55%	57%	58%
Developed at O.U.	75	78	76	81	77	76

The Ability to Place Current Problems into Historical, Cultural, and Philosophical Perspective

Needed	52%	51%	51%	52%	53%	54%
Developed at O.U.	81	81	81	83	81	81

The Ability to Convey Meaning though Artistic Expression

Needed	50%	48%	44%	48%	45%	48%
Developed at O.U.	75	74	73	74	71	70



General Education Program

Graduates were asked to rate their undergraduate general education program, consisting of Tier I (first-year writing, junior writing, and quantitative reasoning), Tier II (breadth of knowledge), and Tier III (synthesis).

General Education Program Areas

(percent extremely/very/somewhat satisfied)	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
Tier I, Freshman Writing	93%	91%	92%	91%	92%	92%
Tier I, Junior Writing	94	93	93	92	92	93
Tier I, Quantitative Reasoning	94	93	94	95	94	95
Tier II, Breadth of Knowledge	96	96	95	96	95	96
Tier III, Synthesis	85	84	85	86	84	87

ACT Collegiate Assessment of Academic Proficiency (CAAP) Test

The Collegiate Assessment of Academic Proficiency (CAAP) is a standardized assessment program offered by ACT that allows postsecondary institutions to test the learning outcomes of their general education programs. It is intended to confirm that students are adequately prepared for their upper-division coursework and to identify learning opportunities for both institutions and students. As part of the general education assessment plan the CAAP was administered during the winter and spring quarters 2008 to begin an assessment of Tier I general education learning outcomes.

Mathematics Test

In winter 2008, 181 students enrolled in Math 115 course sections completed the CAAP Mathematics Test. The content areas tested include pre-algebra; elementary, intermediate, and advanced algebra; coordinate geometry; and trigonometry. Three scores are reported for the CAAP Mathematics Test: a total test score based on all 35 items, a sub-score in Basic Algebra based on 17 items, and a sub-score in College Algebra based on the remaining 18 items. The Basic Algebra sub-score is comprised of test questions from the pre-algebra, elementary algebra, intermediate algebra, and coordinate geometry content areas. The College Algebra sub-score is comprised of test questions from the College Algebra and trigonometry content areas. The following figure shows a summary of these test results.

ACT CAAP Math Benchmark Comparisons

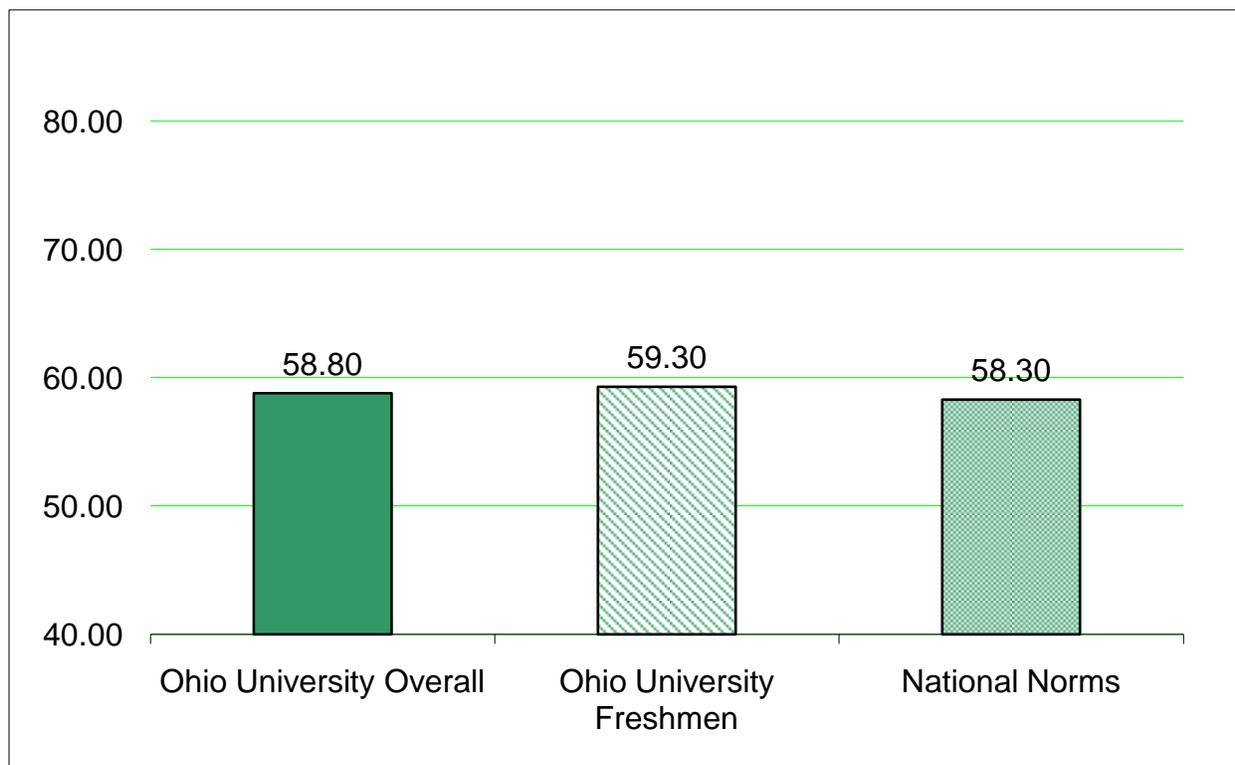
Ohio University

Institutional Summary

Benchmark Comparisons

CAAP Math Composite Score Means Comparison

Ohio University Overall		Ohio University Freshmen		National Norms	
<i>n</i>	<i>Mean</i>	<i>n</i>	<i>Mean</i>	<i>n</i>	<i>Mean</i>
181	58.80	65	59.30	25856	58.30



English Writing Test

In spring 2008, 185 students enrolled in 11 different junior composition course sections completed the CAAP Writing Essay Test. The CAAP Writing Essay Test is predicated on the assumption that the skills most commonly taught in college-level writing courses and required in upper-division college courses across the curriculum include: formulating an assertion about a given issue, supporting that assertion with evidence appropriate to the issue, position taken, and a given audience, organizing and connecting major ideas and expressing those ideas in clear, effective language. The model developed by ACT for the Writing Essay Test is designed to elicit responses that demonstrate a student's ability to perform these skills. Two 20-minute writing tasks are defined by a short prompt that identifies a specific hypothetical situation and audience. The hypothetical situation involves an issue on which the examinee must take a stand. An examinee is instructed to take a position on the issue and to explain to the audience why the position taken is the better (or best) alternative. For the CAAP Writing Essay Test, ACT developed a six-point (1 being the lowest score, 6 the highest), modified holistic scoring system. Each score point reflects a student's ability to perform the skills identified. The following figure shows a summary of these test results.

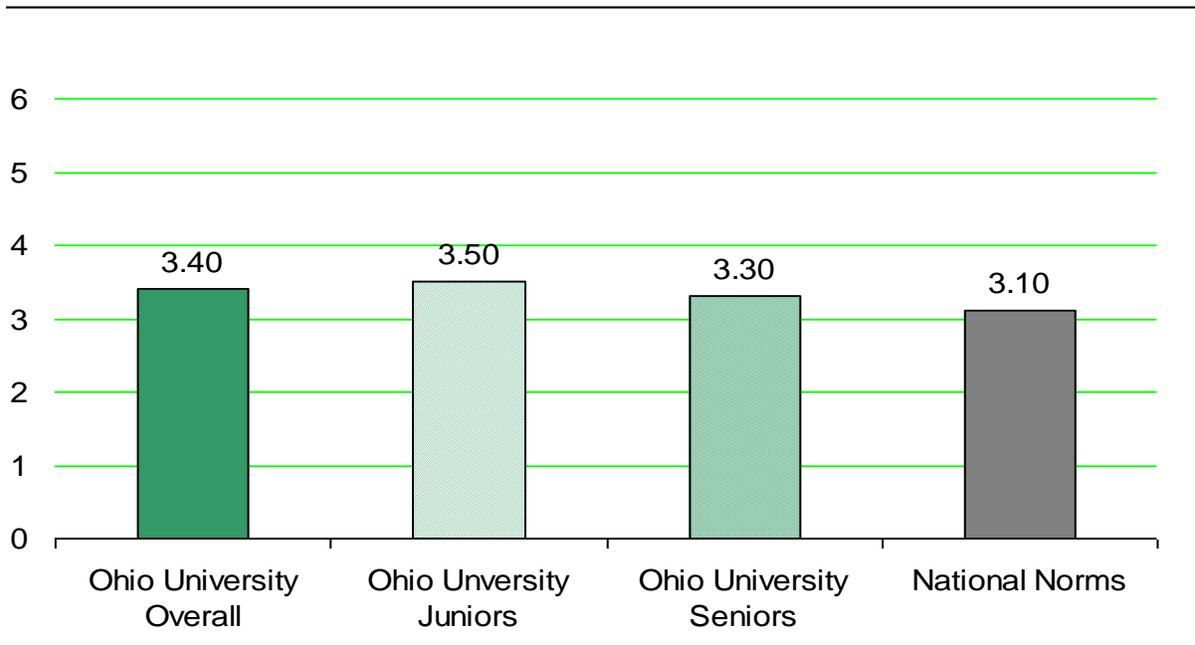
ACT CAAP Writing Essay Benchmark Comparisons Ohio University

Institutional Summary

Benchmark Comparisons

CAAP Essay Writing Composite Score Means Comparison

Ohio University Overall		Ohio University Juniors		Ohio University Seniors		National Norms	
<i>n</i>	<i>Mean</i>	<i>n</i>	<i>Mean</i>	<i>n</i>	<i>Mean</i>	<i>n</i>	<i>Mean</i>
185	3.40	125	3.50	55	3.30	14347	3.10



Voluntary System of Accountability Critical Thinking and English Writing Testing

Shortly after administering the CAAP Mathematics and Writing Essay Tests, in June 2008, Ohio's public universities joined the Voluntary System of Accountability (VSA). VSA is a national initiative by public four-year universities to supply basic, comparable information on the undergraduate student experience to important constituencies through a common web report - the [College Portrait](#). Ohio University's participation in VSA aligns with the institution's ongoing commitment to identify student success measures, track outcomes and make the results publicly available. In becoming a VSA institution, the University agreed to capture and post online a wide range of standardized performance data that anyone can readily compare with that of other participating VSA institutions. This includes a standardized test of general education knowledge and skills. Ohio University chose the ACT CAAP for this purpose.

In an effort to continue with the assessment of the general education learning outcomes as well as to be compliant with the VSA requirements, the Office of Institutional Research administered both the CAAP Critical Thinking Test and the CAAP Writing Essay Test during the 2009-2010 academic year. The method for testing is prescribed by ACT and VSA. VSA requires a cross sectional design. Samples of 200 freshmen and 200 seniors are required to complete each test. CAAP tests are available for administration during a two-week period which was determined by the Office of Institutional Research. Freshmen must be tested early in the fall term, and seniors must be tested within 6 months of graduation.

The CAAP Critical Thinking Test is a 32-item, 40-minute test that measures students' skills in clarifying, analyzing, evaluating, and extending arguments. An argument is defined as a sequence of statements that includes a claim that one of the statements, the conclusion, follows from the other statements. The Critical Thinking Test consists of four passages that are representative of the kinds of issues commonly encountered in a postsecondary curriculum. The CAAP Writing Essay Test is the same test that was given to students enrolled in the junior composition course in the spring 2008.

Based on the VSA methodological requirements the Office of Institutional Research worked in collaboration with Learning Community Programs during fall quarter 2009 and selected a representative sample of learning community course sections to provide the freshmen sample for both assessments. The CAAP Critical Thinking and Writing Essay Tests were administered to 187 freshmen and 189 freshmen, respectively, enrolled in 29 different sections of Learning Community courses over a two-week period starting in mid-October. Students were given a \$20 Baker University Center gift card for their completion of the tests.

Because seniors were required to be within six months of graduation and because students at Ohio University do not take a common course during their senior year, they were sampled quite differently. The Office of Institutional Research in collaboration with the University Registrar and the Office of Information Technology (OIT) developed a web-based registration for seniors as they applied for graduation through the Registrar's website. Students were prompted with an opportunity to receive a \$50 graduation application fee waiver, which directed them to a separate CAAP Test Registration site operated by the Office of Institutional Research. A total of 330 seniors registered and completed the ACT CAAP tests. Of the 330, 165 seniors completed the CAAP Critical Thinking Test and 165 seniors completed the CAAP Writing Essay Tests. Six different testing sessions were offered to the students during a two week period starting in mid May 2010. With the assistance of the Bursar's Office the \$50

graduation application fee waivers were posted to students' accounts upon completion of the tests. Following are Ohio University's results from these VSA CAAP tests. In addition, these test results are included in Ohio University's VSA College Portrait at: http://www.collegeportraits.org/OH/OU/learning_outcomes

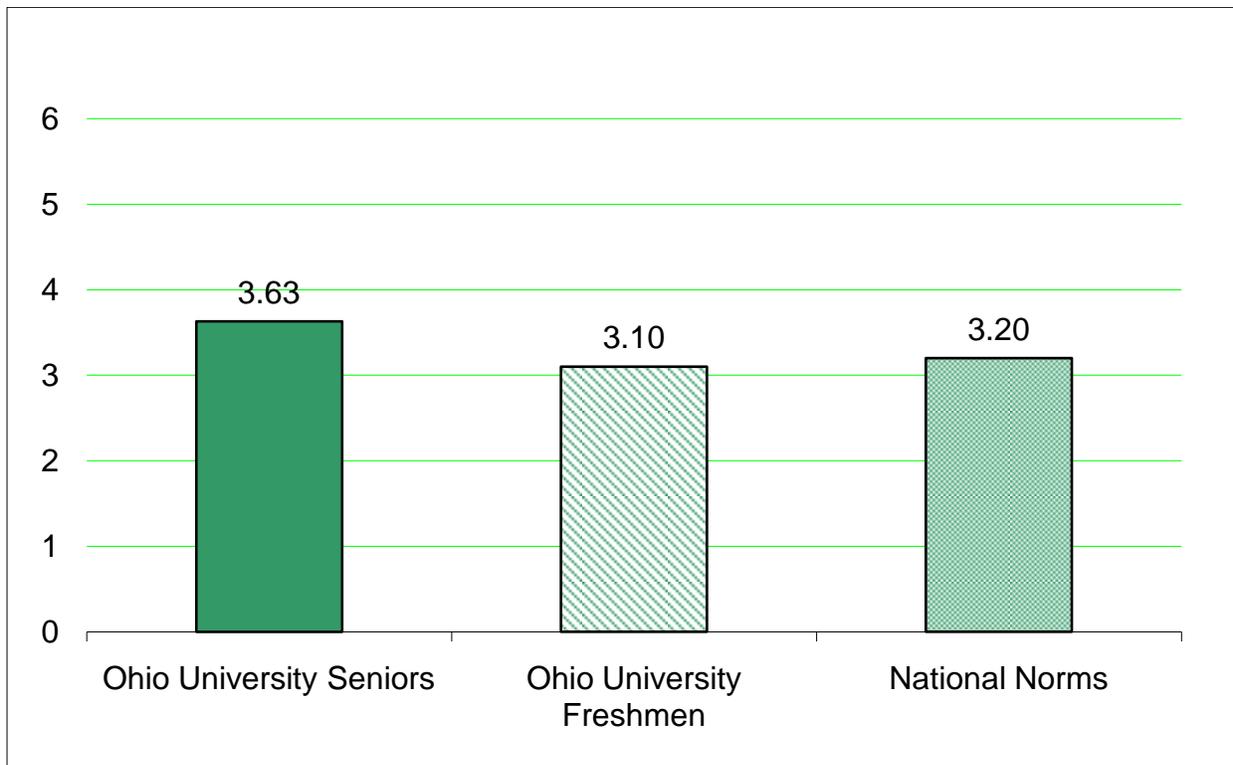
ACT CAAP Writing Essay Benchmark Comparisons Ohio University

Institutional Summary

Benchmark Comparisons

CAAP Essay Writing Composite Score Means Comparison

Ohio University Seniors		Ohio University Freshmen		National Norms	
<i>n</i>	<i>Mean</i>	<i>n</i>	<i>Mean</i>	<i>n</i>	<i>Mean</i>
154	3.63	187	3.10	7623	3.20



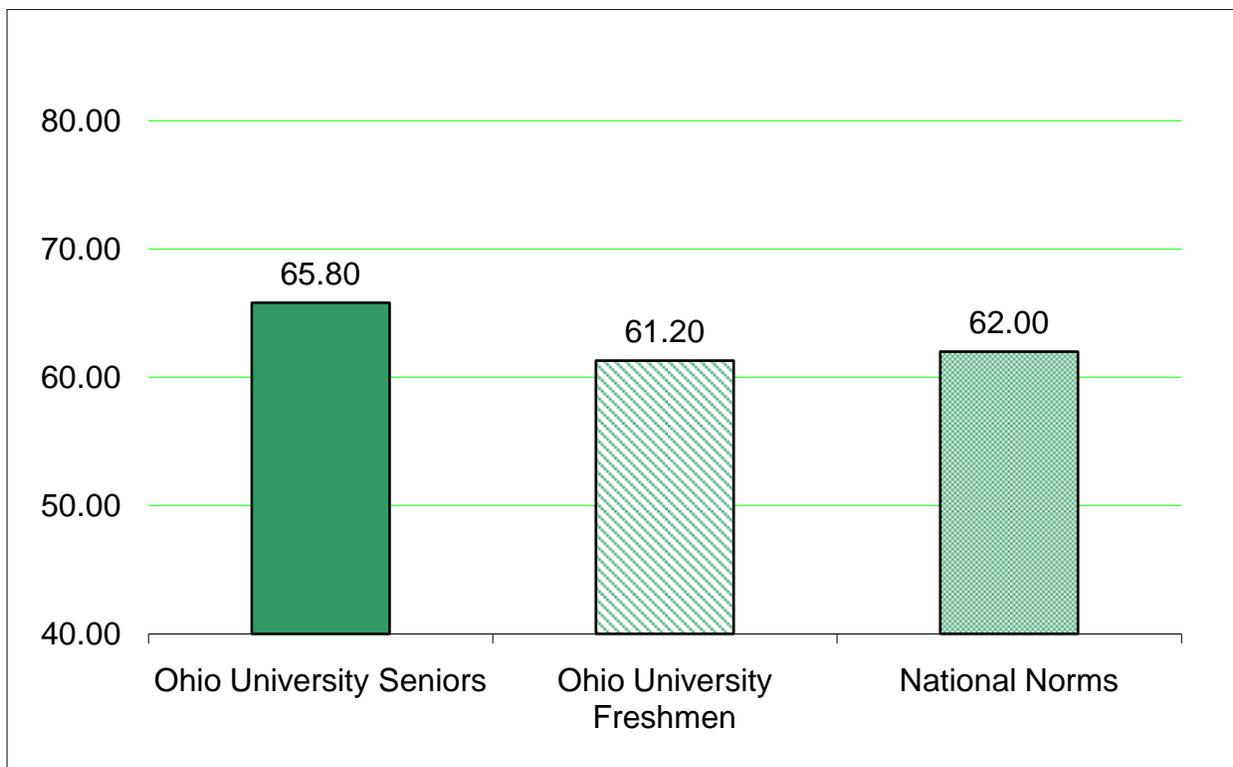
ACT CAAP Critical Thinking Benchmark Comparisons Ohio University

Institutional Summary

Benchmark Comparisons

CAAP Critical Thinking Composite Score Means Comparison

Ohio University Seniors		Ohio University Freshmen		National Norms	
<i>n</i>	<i>Mean</i>	<i>n</i>	<i>Mean</i>	<i>n</i>	<i>Mean</i>
153	65.80	186	61.20	9531	62.00



Structured Interviews of Students

In winter and spring 2009 a group of Ohio University faculty and staff set out to conduct structured interviews of Ohio University seniors. The interviews were conducted by members of the General Education Assessment Working Group. Through months of discussion, consultation, and deliberation, the Working Group developed a student sampling plan, interview questionnaires, and a data collection plan. The Working Group decided to first interview seniors at Ohio University, who had completed their general education requirements. Working Group members contacted instructors of Tier III and Tier III-equivalent courses in a variety of disciplines, asking to visit one of their class sessions to solicit students to interview. Students were offered a \$20 Baker University Center gift card, and those who were interested signed up to be scheduled for an individual interview. Interviewers contacted each student and scheduled one-hour individual interviews with up to ten students each. A structured interview questionnaire, using a script devised from interviews of faculty and from the general education learning objectives, was used. Interviews were digitally recorded and transcribed for content analysis. Names and individually-identifying information were redacted from the transcripts. Then, in fall 2009 and winter 2010, the Working Group began to conduct structured interviews of freshmen, to learn about the expectations that beginning students held for their education at Ohio University, including General Education. Working Group members contacted instructors of UC 115 and UC 190 (Learning Communities) instructors. A slightly revised questionnaire was used.

The Working Group identified the following research questions and divided themselves into subgroups to analyze the general education assessment data.

1. How do Ohio University students understand and evaluate their college experience, in terms of knowledge, skills, and personal development they have gained or expect to gain? How do they rate their Ohio University experience (or expected experience) in terms of the selected learning objectives? Which learning objectives do students identify as areas they have gained (or expect to gain) the most, and why? Which learning objectives do students identify as areas they have gained (or expect to gain) the least, and why?
2. How do Ohio University students understand the purpose of general education? What does general education mean to them? What expectations about general education do Ohio University students have? How do students view critical thinking--similarly or different from that of professors?
3. What engages our students intellectually? Are there aspects of the general education curriculum that students especially like/dislike?

4. Where are students getting general education knowledge and skills--from outlets other than general education courses? Are students describing their courses as the source? Do students in different academic programs have different outcomes?

5. What changes would seniors make in the general education courses they chose? In Tier II? What changes would seniors make in the way the general education courses were taught?

The following are summaries of the answers to each research question, as provided by each subcommittee. A summary of conclusions from the research question groups' work is at the end of this Interim Report.

Research Question 1. How do Ohio University students understand and evaluate their college experience, in terms of knowledge, skills, and personal development they have gained or expect to gain? How do they rate their Ohio University experience (or expected experience) in terms of the selected learning objectives? Which learning objectives do students identify as areas they have gained (or expect to gain) the most, and why? Which learning objectives do students identify as areas they have gained (or expect to gain) the least, and why?

This research question focuses on the learning objectives that students identified as those they have “gained most” and “gained least” from their education at Ohio University, and the reasons they gave for having selected those objectives. Data from the interviews with Ohio University seniors ($n = 59$) were utilized.¹ The results summarized here afford preliminary insights into how some seniors at Ohio University evaluate the knowledge, skills, and personal development they have gained from their university experience.

The research reported here utilizes quantitative and qualitative data pertaining to learning objectives. The quantitative data come from two sets of surveys that were given to each student to complete at the beginning of the interview. Each survey contained a set of learning objectives for students to evaluate, with fixed-item responses. The first survey included learning objectives adapted from the university’s Alumni Survey, and asked students “To what extent has your experience at Ohio University contributed to your knowledge, skills, and personal development in the following areas?” Response categories were: very much; quite a bit; some; very little. The second survey included learning objectives adapted from the National Survey of Student

¹ Follow-up analysis will include parallel information provided by the freshmen sample who were also interviewed for this project.

Engagement and asked students “Please rate how effective you feel Ohio University has been in helping you develop each of the following competencies.” Response categories were: effective; somewhat effective; not at all effective.^{2,3}

Mid-way through the interview, students were asked to read the questions they answered from the two different surveys they had completed. The interviewees were then asked “Can you name three things from each list that you would say you’ve gained *the most* from your education at Ohio University? Please tell me a bit about why you selected those particular things.” As a follow-up question, interviewees were also asked “From the same lists of learning objectives items, can you name three things from each that you would say you’ve gained *the least* from your education at Ohio University? Please tell me a bit about why you’ve selected these particular things.” Responses to these questions provide important qualitative data to help us understand how students perceive and evaluate learning objectives.

Members of the Working Group reviewed the transcribed responses to tally the items from each list that students had reported gaining most and gaining least, and to identify themes in the students’ discussions of why they had selected those items. Following are the five themes that emerged from the transcripts concerning students’ explanations why they selected particular learning objectives as those they have “gained most” from their education at Ohio University:

- Mastery of the objective is important for the student’s personal development
- Mastery of the objective helps the student do well in classes
- Mastery of the objective is helpful or needed for future careers
- Mastery of the objective has been emphasized in student’s classes
- The university environment promotes the learning objective

A larger number of themes emerged from the transcripts concerning students’ explanations for why they selected particular learning objectives as those they have “gained least” from their education at Ohio University. Following are the 9 themes that were identified:

- Student was not interested in the learning objective or feels it has limited value
- Student chose other options at the university
- Student believes s/he lacks background or ability to master the learning objective
- Expectations for the learning objective were not clear to the student
- Courses the student took were not effective in promoting the learning objective
- Learning objective is not promoted or valued at the university

² Table 1 includes a listing of learning objectives adapted from the university’s Survey of Alumni, also including several additional learning objectives added by the research team to ensure that Ohio University learning objectives

³ This research design will enable us to conduct comparative analyses of our survey data with larger groups of Ohio University alumni (Alumni Survey) and with students nationally (National Survey of Student Engagement).

- Student developed skills/knowledge relative to the learning objective before coming to the university
- Student developed skills/knowledge relative to the learning objective on her/his own or from another source since coming to the university
- Learning objective is not in the university's purview

Two members of the Working Group individually coded the transcript data utilizing these themes (including coding for multiple themes that emerged in the students' responses), and met to discuss and reconcile any discrepancies in the codes each had assigned. This section presents preliminary findings and discussion concerning: 1) learning objectives that seniors reported having "gained most" and "gained least" from their education at Ohio University; and 2) themes that emerged in the interviews concerning why the seniors selected those learning objectives.

1) Learning objectives that seniors report having *gained most* and *gained least* from their education at Ohio University.

Tables 1 and 2 show the number of seniors who selected a given learning objective as one of three they gained most from their college education, and the number of seniors who selected a given learning objective as one of three they gained least from their college education, for each of the sets of lists adapted from the Survey of Alumni and the National Survey of Student Engagement (NSSE). (Percentages of seniors who selected the learning objectives also are included in the table in parentheses.) For ease of presentation, we have limited the discussion here to the **five** top-ranked learning objectives in each of the lists (Survey of Alumni – gained most; Survey of Alumni – gained least; NSSE – gained most; NSSE – gained least)⁴. These top-ranked learning objectives are highlighted in bold face in Tables 1 and 2.

Items adapted from the Survey of Alumni

Gained most: The learning objectives in the Survey of Alumni list that garnered the greatest number of responses from seniors as having gained most (and highlighted in bold type in the table) were: Think analytically (13 seniors or 22% of the sample); acquire new skills, understanding on own (29%); write well (31%), communicate effectively orally (24%); cope with complex moral and ethical issues (22%) (see Table 1).

⁴ Due to a tied number of responses for "think analytically" and "cope with complex moral and ethical issues," six rather than five learning objectives are highlighted for "gained most" for the Survey of Alumni items (Table 1).

Gained least: The learning objectives in the Survey of Alumni list that garnered the greatest number of responses from seniors as having gained least (highlighted in bold type in the table) were: Communicate effectively orally (18 seniors or 31% of the sample); convey meaning through artistic & creative expression (36%); participate in community service activities (36%); apply scientific methods to understand the natural and physical world (25%); apply social science theories and methods to contemporary historical issues (22%); and appreciate artistic expression (25%) (see Table 1).

Items adapted from the National Survey of Student Engagement (NSSE)

Gained most: The learning objectives in the NSSE list that garnered the greatest number of responses from seniors as having gained most (highlighted in bold type in the table) were: job or work-related knowledge or skills (18 students or 31% of the sample); thinking clearly and effectively (25%); working effectively with others (29%); learning effectively on your own (25%); understanding yourself (25%); and developing a passion for your work / life endeavors (24%) (see Table 2).

Gained least: The learning objectives in the NSSE list that garnered the greatest number of responses from seniors as having gained least (highlighted in bold type in the table) were: speaking clearly and effectively (20%); analyzing quantitative problems (22%); voting in elections (49%); understanding people of other racial and ethnic backgrounds (29%); contributing to the welfare of your community (37%); being knowledgeable about world events (27%) (see Table 2).

Brief discussion

In reviewing the patterns of responses displayed in Tables 1 and 2, noteworthy findings include the following:

- Liberal arts learning objectives focusing on analytic thinking and written and oral communication skills emerged among the top-ranked objectives that seniors said they had gained most (“think analytically,” “write well,” “communicate effectively orally,” Table 1; “writing clearly and effectively,” Table 2).
- Other liberal arts skills were evaluated by seniors as among the learning objectives they had gained least, however, including numeracy (“analyzing quantitative problems,” Table 2), understanding diversity (“understanding people of other racial and ethnic backgrounds,” Table 2), and artistic/creative expression and appreciation (“artistic and creative expression,” “appreciation of artistic expression,” Table 1), as well as “communicate effectively orally” (Table 1).

- Hence, “communicate effectively orally” emerged **both** as one of the top-ranked objectives that the seniors indicated they have gained most from their education at Ohio University (14 responses or 24% of the sample) **and** as one of the top-ranked objectives that other seniors said they gained least from their education (18 responses or 31% of the sample, Table 1).
- About a third of the seniors (31%) identified job or work-related knowledge or skills as one of the top three objectives they had gained most from their education (Table 1). Related learning objectives that emerged as among the top objectives gained most were ability to work in a team setting (Table 1) and working effectively with others (Table 2).
- Lifelong learning and personal development also were among the top-ranked learning objectives gained most by seniors. These included “acquire new skills, understanding on own” (Table 1), “learning effectively on your own” (Table 2) and “understanding yourself” (Table 2). The ability to cope with complex moral and ethic issues also emerged as one of the top-ranked learning objectives students reported they had gained most (Table 1).
- On the other hand, community and civic engagement were among the top-ranked learning objectives gained least by seniors. A third or more of the students indicated that they had gained least from their university education in areas related to participation in community service activities (Table 1), “contributing to the welfare of your community” (Table 2) and “voting in elections” (Table 2). A related learning objective, “being knowledgeable about world events,” was also frequently identified by students as one of the objectives they had gained least from the university.
- The learning objective garnering the greatest number of responses, across both surveys, concerns “voting in elections.” Nearly half of the seniors identified this learning objective as one of three they had gained least from their education at Ohio University.

What did the senior interviewees have to say about voting in elections, as well as other items that they selected from the provided lists of learning objectives? Why did they select some items as the learning objectives they have gained most from their education at Ohio University, and other items as the learning objectives they have gained least from their college experience? These questions are addressed in the following set of findings.

2) Themes that emerged in the interviews concerning why the seniors selected particular learning objectives.

Tables 3 and 4 include the top-ranked learning objectives that seniors report having gained most and gained least, from each of the two sets of surveys. These objectives are tabulated by the themes that emerged from students’ explanations concerning why they selected

those items. (The themes are listed in the methods section above, and also listed in Tables 3 and 4.) Hence, for each of the top-ranked learning objectives, the number of student responses that addressed a particular theme is shown in the table (percentages of responses are shown in parentheses.)

As noted above, interviewees' responses were coded for possible multiple themes. Whereas some students' responses addressed a single theme, others addressed up to four of the identified themes. For example, one student explained why she selected "ability to work in a team setting" as one of the learning objectives gained most at Ohio University by saying:

That is something that has been emphasized over and over again because we have done small groups throughout, but this entire senior year for me in senior design has been a team experience and it's definitely a major focus for the whole curriculum for me.

This student's comments were coded with a single theme: "Mastery of objective has been emphasized in student's classes."

In comparison, another student's explanation as to why he selected "ability to work in a team setting" as one of the learning objectives gained most was coded with two themes: "mastery of the objective has been emphasized in student's classes" and "mastery of the objective is helpful for future careers." This student said:

Working in a team setting, absolutely, because a lot of courses require working in a group. A lot of students complain that they don't like working in a group because it's difficult to get people's schedules together, but I loved it because once you get out in the workforce, there are lots of people you have to collaborate with.

Learning objectives seniors report having gained most – analysis of themes

Table 3 shows that "mastery of objective has been emphasized in student's classes" was the most frequently invoked theme in seniors' explanations of why they had gained particular learning objectives from their university education. This theme emerged 120 times in this set of student responses,⁵ and was the most frequent explanation given for the learning objectives "think analytically," "write well," "communicate effectively orally," "work in a team setting," "job or work-related knowledge or skills," "working effectively with others," and "learning effectively on your own."

The theme "mastery of objective is important for personal development" was the second most frequently invoked reason seniors gave for having gained particular learning objectives. This theme was addressed a total of 57 times in the students' responses, as shown in Table 3, and

⁵ These data are limited to the top-ranked learning objectives, as listed in Tables 3 and 4.

emerged as the most frequently invoked explanation for three of the gained most learning objectives: “acquire new skills, understanding on own,” “thinking critically and analytically,” and “understanding yourself.”

For example, nearly half of the students (47%) who selected “thinking critically and analytically” as one of the learning objectives they had gained most at Ohio University referenced personal development in explaining the selection. In this regard, one student said: —. *being able to think critically and analytically is probably one of my greater accomplishments.*”

Learning objectives senior report having gained least – analysis of themes

Table 4 shows that two themes were dominant in students’ explanations concerning the learning objectives they had gained least at Ohio University: “Courses were not effective” (theme evident in 72 total responses) and “objective is not valued at the university” (theme evident in 76 total responses.) The following student comment addressed both of these themes in explaining why the learning objective “understanding people of other racial and ethnic backgrounds” was gained least at the university:

If you walk on campus you see people of other backgrounds, but you do not have to interact with someone different from you ever. I have never taken a class that has talked about it or interacted with someone else. Even though there is diversity on campus, we are secluded. There are different groups that hardly (ever) intermingle together.

Although students referenced their courses and the university environment in discussing the learning objectives they have gained least from their college education, other explanations also emerged in the transcripts. For example, interviewees invoked their own choices for some of the learning objectives they have gained least at Ohio University. Specifically, for the learning objectives “apply scientific methods to understand the natural and physical world,” “appreciate artistic expression,” and “analyzing quantitative problems,” the senior interviewees most frequently said that they had simply chosen other options at the university. In explaining why she had gained least from the learning objective “participate in community service activities,” one interviewee said, —*My personal choice; there might have been opportunities, but I didn’t see it necessary.*”

As noted earlier in this report, the learning objective garnering the greatest number of responses from the senior interviewees, across the Alumni and NSSE survey items, concerns “voting in elections.” Nearly half of the sample (29 students, or 49%) identified this learning objective as one of three they had gained least from their education at Ohio University. Analysis of the transcripts shows among students who identified “voting in elections” as one of the

learning objectives they have gained least, 12 (41%) of these students felt that this learning objective is not valued at the university and 8 (28%) felt that their courses were not effective in promoting the objective. One student commented:

I put the lowest at voting in local, state and national elections which is kind of ironic since we had that huge election while I was in college but I mean I just never, especially when we are bombarded with people getting you to vote, I feel like no one ever just simply talked about (it), especially local elections,

In a similar vein, another student commented:

I don't feel like within our classes there is value, at least in the ones I've taken, there hasn't been value given to the democratic process.

Responses on this topic indicated that while student groups on campus had actively promoted voting in the November 2009 elections, to the point of being “overbearing” and “in your face,” interviewees felt that neither the issues nor the reasons for voting were addressed in their classes or at the university broadly.

Table 1. Items Adapted from Survey of Alumni: Learning Objectives Seniors Report Having *Gained Most* and *Gained Least* from their Education at Ohio University

Learning objective	Number (%) of seniors who selected the learning objective as 1 of 3 they <i>gained most</i> from their college education.*	Number (%) of seniors who selected the learning objective as 1 of 3 they <i>gained least</i> from their college education.*
1. Think analytically	13 (22%)	1 (2%)
2. Apply major field knowledge to new problems	9 (15%)	1 (2%)
3. Acquire new skills, understanding on own	18 (31%)	2 (3%)
4. Write well	17 (29%)	8 (8%)
5. Communicate effectively orally	14 (24%)	18 (31%)
6. Evaluate and choose between alternative courses of action	4 (7%)	1 (2%)
7. Formulate creative and original ideas and solutions	9 (15%)	8 (14%)
8. Convey meaning through artistic & creative expression	4 (7%)	21 (36%)

9. Cope with complex moral and ethical issues	13 (22%)	10 (17%)
10. Place current problems in historical, cultural, and philosophical perspective	7 (12%)	4 (7%)
11. Sensitivity to feelings and perceptions of others	5 (8%)	4 (7%)
12. Work in a team setting	24 (41%)	7 (12%)
13. Use computer as an analytical tool	4 (7%)	8 (14%)
14. Participate in community service activities	4 (7%)	21 (36%)
15. Apply scientific methods to understand the natural and physical world	6 (10%)	15 (25%)
16. Write analytically	9 (15%)	1 (2%)
17. Apply social science theories and methods to contemporary/historical issues	3 (5%)	13 (22%)
18. Use technology to locate, present, and analyze info.	12 (20%)	6 (10%)
19. Appreciate artistic expression	3 (5%)	15 (25%)

Notes:

$n = 59$ seniors were interviewed for the project. Each interviewee was asked to identify three learning objectives they have gained *the most* from their education at Ohio University and three learning objective they have gained *the least* from their education.

For each list, the five learning objectives garnering the greatest number of responses have been highlighted in bold type. (Due to a tied number of responses for “think analytically” and “cope with complex moral and ethical issues,” six rather than five learning objectives are highlighted for the Survey of Alumni *gained least* items.)

Table 2. Items Adapted from NSSE: Learning Objectives Seniors Report
Having *Gained Most* and *Gained Least* from their Education at Ohio University

Learning objective	Number (%) of seniors who selected the learning objective as 1 of 3 they <i>gained most</i>.*	Number (%) of seniors who selected the learning objective as 1 of 3 they <i>gained least</i>.*
1. Broad general education	10 (17%)	4 (7%)
2. Job or work-related knowledge or skills	18 (31%)	6 (10%)
3. Writing clearly/effectively	14 (24%)	9 (15%)
4. Speaking clearly/effectively	6 (10%)	12 (20%)
5. Thinking critically and analytically	15 (25%)	3 (5%)
6. Analyzing quantitative problems	5 (8%)	13 (22%)
7. Using computing and information technology	5 (8%)	9 (15%)
8. Working effectively with others	17 (29%)	7 (12%)
9. Voting in elections	2 (3%)	29 (49%)
10. Learning effectively on your own	15 (25%)	2 (3%)
11. Understanding yourself	16 (27%)	4 (7%)
12. Understanding people of other racial/ethnic	8 (14%)	17 (29%)
13. Solving complex real-world problems	8 (14%)	5 (8%)
14. Developing a personal code of values and ethics	7 (12%)	11 (19%)
15. Contributing to the welfare of your community	3 (5%)	22 (37%)
16. Developing a passion for your work / life endeavors	14 (24%)	2 (3%)
17. Being willing to confront and work through challenges in life	7 (12%)	0 (0%)
18. Being knowledgeable about world events	7 (12%)	16 (27%)

Notes:

$n = 59$ seniors were interviewed for the project. Each interviewee was asked to identify three learning objectives they have gained *the most* from their education at Ohio University and three learning objective they have gained *the least* from their education.

For each list, the five learning objectives garnering the greatest number of responses have been highlighted in bold type.

Table 3. Learning Objectives Seniors Report Having *Gained Most*,* Tabulated by Identified Themes

Learning objective	Number (%) of responses that included the identified themes, calculated for each learning objective**						Number of seniors selected it as 1 of 3 that have gained most
	Mastery is important personal development	Mastery helps student do well in classes	Mastery helpful for future careers	Mastery emphasized in classes	University promotes the learning objective	Insufficient information to code	
<i>Survey of Alumni Items</i>							
1. Think analytically	2 (15%)	0 (0%)	1 (8%)	9 (70%)	2 (15%)	2 (15%)	13
3. Acquire new skills, understanding on own	6 (35%)	3 (18%)	2 (12%)	4 (24%)	4 (24%)	4 (24%)	17
4. Write well	1 (6%)	2 (11%)	2 (11%)	15 (83%)	2 (11%)	2 (11%)	18
5. Communicate effectively orally	5 (36%)	0 (0%)	1 (7%)	11 (79%)	1 (7%)	1 (7%)	14
9. Cope with complex moral and ethical issues	4 (31%)	0 (0%)	0 (0%)	10 (77%)	5 (38%)	0 (0%)	13
12. Work in a team setting	6 (25%)	0 (0%)	4 (17%)	22 (92%)	0 (0%)	2 (8%)	24
<i>Items Adapted from NSSE</i>							
2. Job or work-related knowledge or skills	4 (22%)	0 (0%)	8 (44%)	10 (56%)	4 (22%)	2 (11%)	18
5. Thinking critically and analytically	7 (47%)	1 (7%)	0 (0%)	6 (40%)	5 (33%)	1 (7%)	15

8. Working effectively with others	3 (18%)	0 (0%)	3 (18%)	12 (71%)	1 (6%)	2 (12%)	17
10. Learning effectively on your own	6 (40%)	1 (7%)	1 (7%)	12 (80%)	1 (7%)	0 (0%)	15
11. Understanding yourself	7 (44%)	1 (6%)	0 (0%)	1 (6%)	5 (31%)	2 (13%)	16
16. Developing a passion for your work / life endeavors	6 (43%)	0 (0)	1 (7%)	8 (57%)	3 (21%)	3 (21%)	14
Total number of times theme was addressed in students' responses, summed across the learning objectives included in table.	57	8	23	120	33	21	

* Table includes learning objectives garnering the greatest number of responses for having *gained most*, for each of the two surveys. (The top 5 learning objectives are included from NSSE. Due to a tied number of responses for “think analytically” and “cope with complex moral and ethical issues,” six learning objectives are included from the Survey of Alumni.)

** Number (%) of responses that included the identified themes calculated by row, for each learning objective. For example, for the first learning objective listed in the table -- “think analytically” -- responses from 2 of the 13 seniors (or 15%) indicated they selected the item because it is important for their personal development. Interviewees’ qualitative responses were coded for multiple themes. Hence, for a given row, columns for the identified themes do not sum to the number of seniors who selected that learning objective.

Table 4. Learning Objectives Seniors Report Having *Gained Least*,* Tabulated by Identified Themes

Learning objective	Number (%) of responses that included the identified themes, calculated by for each learning objective**										Number of seniors selected it as 1 of 3 that have gained least
	Lack of interest/objective has limited value	Chose other options at university	Believes s/he lacks back-ground or ability	Expectations for objective were not clear	Courses were not effective	Objective is not valued at university	Developed skill/knowledge before coming to university	Developed on own or from another source since coming to university	Objective is not in university purview	Insufficient information to code	
<i>Survey of Alumni Items</i>											
5. Commun. effectively Orally	0 (0%)	4 (22%)	2 (11%)	0 (0%)	12 (67%)	1 (6%)	1 (6%)	1 (6%)	0 (0%)	1 (6%)	18
8. Convey meaning through artistic & creative expression	1 (5%)	7 (33%)	5 (24%)	0 (0%)	9 (43%)	5 (24%)	1 (5%)	0 (0%)	0 (0%)	1 (5%)	21
14. Partic. in community service activities	3 (14%)	6 (29%)	0 (0%)	2 (0%)	5 (24%)	12 (57%)	0 (0%)	3 (14%)	0 (0%)	2 (10%)	21
15. Apply scientific methods- understand the natural/ physical world	1 (7%)	11 (73%)	0 (0%)	0 (0%)	4 (27%)	1 (7%)	0 (0%)	0 (0%)	0 (0%)	3 (20%)	15
19. Appreciate artistic expression	2 (13%)	7 (47%)	0 (0%)	0 (0%)	3 (20%)	5 (33%)	3 (20%)	0 (0%)	0 (0%)	1 (7%)	15
6. Analyzing quantitative problems	0 (0%)	8 (62%)	4 (31%)	0 (0%)	3 (23%)	1 (8%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	13

9. Voting in elections	3 (10%)	1 (3%)	1 (3%)	0 (0%)	8 (28%)	12 (41%)	2 (7%)	2 (7%)	4 (14%)	6 (21%)	29
12. Understanding people of other racial/ethnic backgrounds	1 (6%)	2 (12%)	0 (0%)	0 (0%)	5 (29%)	9 (53%)	1 (6%)	4 (24%)	0 (0%)	2 (12%)	17
15. Contributing to welfare of your community	2 (9%)	2 (9%)	0 (0%)	0 (0%)	6 (27%)	16 (73%)	0 (0%)	8 (36%)	0 (0%)	0 (0%)	22
18. Being knowledgeable about world events	2 (13%)	5 (31%)	0 (0%)	0 (0%)	3 (19%)	7 (44%)	0 (0%)	5 (31%)	1 (6%)	2 (13%)	16
Total number of times theme was addressed, summed across the learning objectives.	16	57	15	3	72	76	9	26	5	22	

* Table includes the five learning objectives garnering the greatest number of responses for having *gained least*, for each of the two surveys (Survey of Alumni; Items Adapted from NSSE).

** Number (%) of responses that included the identified themes calculated by row, for each learning objective. For example, for the first learning objective listed in the table -- “communicate effectively orally” -- responses from 4 of the 18 seniors (or 22%) indicated they selected the item because it is important for their personal development. Interviewees’ qualitative responses were coded for multiple themes. Hence, for a given row, columns for the identified themes do not sum to the number of seniors who selected that learning objective.

Research Question 2. How do Ohio University students understand the purpose of general education? What does general education mean to them? What expectations about general education do Ohio University students have? How do students view critical thinking--similarly or different from that of professors?

In answering this question four of the interview questions were used:

1. What do you think a college degree is for? In general, how do you tell the difference between someone who hasn't had very much of an education versus someone who has had a college education?
2. What is "general education" to you? Why do you think Ohio University has it? What is your understanding of why you need to take these courses?
3. What do you think you need to do well to be successful? Do you think general education is going to help you be more successful after graduation? Why or why not?
4. Now, please think about what you've heard about general education. What do you expect to gain from your general education courses?

The transcribed responses to these questions were reviewed by three members of the Working Group and organized into common themes. There were 28 distinct answers to the question "What do you think a college degree is for?" from the senior responses. From those responses it appeared that there were 6 main themes:

- 1. A college degree helps a person to get a better paying job and trains him/her for a job. (28 responses)**
- 2. A college degree makes a person well rounded and knowledgeable about the world. (23 responses)**
3. A college degree prepares a person for a career and to be a member of society. (8 responses)
4. A college degree indicates a person's work ethic and that he/she is willing to put time into learning. (7 responses).
5. In order to get a college degree a person must mature, make decisions and learn how to solve problems. (7 responses).
- 6. A college degree gives a person a world perspective, makes one relate to diverse people and communicate effectively. (6 responses).**

For the first year students there were 29 distinct answers and 6 main themes, three of which overlapped with the senior responses (bold type):

- 1. A college degree helps a person to get a better paying job and trains him/her for a job. (35 responses)**
2. A college degree prepares a person for a career and also for something that really interests him/her, it is not just about earning more. (16 responses)
- 3. A college degree makes a person well rounded and knowledgeable about the world. (12 responses)**
4. A college degree gives a person a broad base of skills/knowledge for the future. (7 responses)
- 5. A college degree gives a person a world perspective, makes one relate to diverse people and communicate effectively. (6 responses).**
6. A college degree provides a person with skills and knowledge to use the rest of his/her life. (6 responses)

The following are quotes from seniors that represent the themes listed above:

1. *—Job security, money, economy, college education is for your education; going away to college helps people mature and build up, get out from under mom and dad; more mature, being able to make tough decisions, choose among alternatives and pick the best one; make tough decisions in college.*”
2. *—Most people would say that a college degree is to get a job, but I don’t necessarily agree with that. I think the reason to get a college education is to become more knowledgeable about the world, about something you are more interested in, to not necessarily go into something new to yourself but take something you are passionate about and expand on it, the most important part is the interaction with other people, and to develop your skills as kind of a social person that can think logically.*”

There were 17 distinct answers to the question “In general, how do you tell the difference between someone who hasn’t had very much of an education versus someone who has had a college education?” from the senior responses. From those responses it appeared that there were 7 main themes:

- 1. A person who hasn’t had very much of an education presents themselves differently in terms of their manner, writing skills and oral communication skills. (19 responses)**
2. A person who has a college degree knows more about current events and politics and is well rounded overall. (9 responses)
3. A person who has a college degree is literate and a critical thinker. (6 responses)
4. A person who has a college degree knows more things in greater depth. (6 responses)
5. A person who has a college degree is able to deal with diversity and comfortable in different social settings. (5 responses)

6. A person who has a college degree is disciplined, goal oriented and good time management skills. (5 responses)

7. A person who has a college degree is more open-minded. (5 responses)

For the first year students there were 27 distinct answers and 6 main themes, two of which overlapped with the senior responses (bold type):

1. A person who hasn't had very much of an education presents themselves differently in terms of their manner, writing skills and oral communication skills. (32 responses)

2. There is a difference in the type of work they do, the level, and how high one can reach in the work place. (18 responses)

3. There is really not much of a difference. It depends on the person. (8 responses)

4. A person who has a college degree is more open-minded. (6 responses)

5. A person who has a college degree can make better arguments in discussions. (6 responses)

6. A person who has a college degree is better at analyzing and dealing with problems. (5 responses)

The following is a quote from a first year student about people who do not have a college degree. *—People who don't have a college education. They generally have a hard struggle in life. Some float from job to job. Some are able to find a skill they can do, but it's still a hard life making minimum wage and not being able to grow further...friends who have graduated from college have a lot of opportunities ahead of them in the job market and growing and developing their life into something that would be enjoyable.*

There were 26 distinct responses to the question “What is “general education” to you? Why do you think Ohio University has it? What is your understanding of why you need to take these courses?” from the senior responses. From those responses it appeared that there were 8 main themes:

1. General education makes one a well-rounded individual as it takes one beyond the major. (23 responses)

2. General education courses are the courses you take outside your major to broaden your “horizons”. (19 responses)

3. General education consists of the core courses everyone takes, having a four year degree means you have had these courses as employers and others expect graduates to have these skills. (18 responses)

4. General education courses are the general courses that help one decide on a major. (14 responses)

5. General education courses help to prepare one for upper level courses. They give one a foundation: (writing, public speaking, technology skills which will be used in major classes). (10 responses)
6. General education prepares for after college where you must understand other contexts, perspectives, people from other backgrounds. (8 responses)
7. General education is a liberal arts education. It shows one how things relate, learn a different school of thought and converse about a variety of subjects. (8 responses)
8. General education helps one to see the whole picture: see how things work in order to communicate with others, solve problems with a diverse perspective. (7 responses)

The following are quotes from seniors about interview question #2.

—To me it was a chance to be able to take a second look at the major that I had chosen and explore different options. And through the general education classes I took I was able to decide what I actually wanted to do as opposed to what I thought I should major in. Well I think that for that reason that I just stated and also because a lot of the general education classes set you up with basic knowledge that helps you in your other classes, that gives you the perspective that you need in order to do well in your other classes and to benefit from those classes personally. I guess maybe also the expectation, there are expectations of what college graduates should know in our society so also it could provide that. Irrelevant of whether or not I actually do need to know anything about biology as a Spanish teacher, I think it's just an expectation that someone with a college education would know.”

—The goal of the general education program is to make you a “well rounded individual” and be able to think for yourself. It also allows you to develop new interests. It has given me a much broader understanding and an appreciation of education in general. General education has also given me an appreciation of how interconnected different fields are. My broad education has allowed me to make these connections.”

—General education is looking into other areas of study besides your major. I was an undecided student when I first entered college and I took many general education classes to find out the area I wanted to study and my career path. I think general education is really to help students decide the field they are interested in and the career they would like to pursue. These courses allow you to see what you are good at. The courses also help you become more diversified. You get a different experience than you would get from your major classes.”

There were 26 distinct responses to the question “What do you think you need to do well to be successful?” from the senior responses. It appeared there were four main themes from these responses:

- 1. A person must be a good communicator. (22 responses)**
- 2. A person must be able to work well with others. (11 responses)**
3. A person must be able to write well. (10 responses)
- 4. A person must be motivated/driven/determined. (9 responses)**

There were 26 distinct responses and seven main themes from the first year students, three of which overlapped with the senior responses (bold type):

- 1. A person must be motivated/driven/determined/have goals. (13 responses)**
2. A person must be organized, and have good time management. (11 responses)
3. A person must do well in school/get good grades. (11 responses)
4. A person must work hard. (9 responses)
- 5. A person must be a good communicator. (8 responses)**
- 6. A person must be able to work well with others. (8 responses)**
7. A person must have passion. (7 responses)

Here are several quotes that pertain to the above question.

—Up to you to do what you need to be successful. Get out of your comfort zone. Use resources, bug people, ask questions, relate things back to school that you’ve learned, ask for help if you need help; seek out, do your studies, do your research, make sure you understand what’s going on and don’t be afraid to say you don’t know, figure out what you need to know.” (Senior)

—You should be able to communicate well orally and in writing. These skills are very important. You also need to learn how to get along with other people and work well in groups or in a team setting. You should be able to work in a team even if your ideas and opinions do not match. I feel that the OU general education program has helped me gain these skills. I feel the English courses I have taken have helped me in the preparation of technical papers for other classes such as lab reports and these courses will help me on the job where I will be required to prepare technical reports. I feel general education courses which emphasize oral communication will help me in testifying in court. I also feel the math skills I have obtained will help in my career.”(Senior)

—Work hard. My dad’s always worked hard. I’ve always worked hard myself in high school. I’ve good grades. Good grades are only a small part of it. If you enjoy what you do, and you work hard at it, that it me is successful. It’s learning who you are more or less like knowing your strengths, your weaknesses; to work with that and all of those things kind of tie in together and

how people become successful. Success is defined in so many ways by so many people.” (First year)

—I think to be successful you don’t necessarily need to get A’s in all of your classes. I mean that’s definitely a good thing that I’m striving for. But you need to understand how to work well in a group. You need to understand how to motivate yourself without your parents tapping you on the shoulder saying, —Oh, how you started your homework yet? or Why aren’t you doing this?” So different things along those lines you need to be self motivated and you need to have a good balance so you’re not necessarily taking every minute of every day with your classes. Take an hour off. Go to Ping. Hang out with friends. Go get something to eat. Just take your mind off of classes.” (First year)

For the question “Do you think general education is going to help you be more successful after graduation? Why or why not?” Twenty-nine seniors responded Yes, 8 responded No, and 2 responded Maybe. There were 19 distinct reasons for the positive answer and 6 for the negative answer. The two main reasons for why general education aids in success after graduation are:

- 1. General Education gives a person a base/foundation/well rounded education. (12 responses)**
- 2. The writing courses will aid in success after graduation. (11 responses)**

There were 14 distinct reasons and five themes for the first year students, two of which overlapped with the senior responses (bold type):

- 1. General Education gives a person a base/foundation/well rounded education. (40 responses)**
- 2. The writing courses will aid in success after graduation. (12 responses)**
3. General Education helps a person relate to the real world. (9 responses)
4. General Education helps a person to learn how to relate to others/work with others. (8 responses)
5. General Education helps a person in the profession. (8 responses)

Here are several quotes that pertain to the above question.

—Yes. I think general education is going to help a lot. To be successful, I think you need to really consider all the possible outcomes and the possible effects of your actions and decisions. I think the general education really helps that and the fact that it like gives you... like general education, I guess it just broadens your knowledge on everything.” (First Year)

—I do not feel I will need all of the information and knowledge I have gained from general education courses, but I feel these courses have enriched my life.” (Senior)

—I definitely think so. I’ve been exposed to so many different areas of study that it really helps you, like when being in an interview if someone asks you about current world events and histories of some countries, you can carry on a conversation and show that you’re an informed person and to me that’s really important. As opposed to someone who’s in maybe accounting and just studies numbers. So to me, it’s really important.” (Senior)

Seventy of the first-year students thought general education would help them to be more successful after graduation. Three said it would not and 8 were unsure. There was no specific consensus as to why general education would not help one in success after graduation.

There were 19 distinct responses to the question “Now, please think about your general education experiences. What did you gain from these experiences?” There were 3 main themes from the senior responses:

1. Exposure to different subjects a person wouldn’t have learned about if he/she had only taken courses in his/her major (14 responses).
2. Knowledge about subjects outside one’s major/ Knowledge for life. (12 responses)
3. How to become a better writer/speaker/communicator. (12 responses)

From the first year student responses there were 13 distinct responses and four main themes to the question “Now, please think about what you’ve heard about general education. What do you expect to gain from your general education courses?”

1. Knowledge about subjects outside one’s major/ Knowledge for life. (28 responses)
2. How to become a better writer/speaker/communicator. (13 responses)
3. No expectations of what a person might gain from general education courses. (11 responses)
4. Exposure to different subjects a person wouldn’t have learned about if he/she had only taken courses in his/her major. (9 responses)

The following is a quote from a senior. *—I gained perspective and an appreciation for other professions. I have gained a broad world view and an understanding of different fields/disciplines. I have gained a breadth of information that I would not have been exposed to if I had not completed a general education curriculum. I have had a lot of writing experience which will help me in the future.”*

Research Question 3. What engages our students intellectually? Are there aspects of the general education curriculum that students especially like/dislike?

The student responses to the interview question “Describe to me the most intellectually compelling, the most interesting learning experience you’ve had here at Ohio University. Why did it interest you?” were analyzed on both a quantitative and qualitative basis. Initially, the responses from both the senior and freshman interviews were studied and categorized into five basic activities:

- A particular course
- A learning community
- A particular instructor
- An out of class experience
- A program, defined as a coherently organized set of experiences (example: Global Leadership Program)

In addition, student responses which fell into the fourth category (out of class experience) were further analyzed with regards to the nature of the out of class experience and the outcome the student received as a result of their participation in this activity. Effort was taken to keep the analysis of these responses as general as possible in order to draw patterns between the responses.

As can be observed in the table below, the majority of the senior and freshman respondents named a particular course (or courses) they had completed as their most intellectually engaged experience. Forty-seven percent of seniors and 57% of freshmen responded to this question by identifying a particular course(s). A significant number of seniors (21%) identified a specific course instructor who had taught a course or courses as their most engaged experience. Many seniors commented in the interviews that they have purposely enrolled in a course because of the instructor. A more detailed analysis of the characteristics the students found appealing about these instructors is found below.

A significant number of both seniors (25%) and freshmen (20%) identified an out of classroom experience as their most engaged activity. This large response was expected by the senior population but somewhat unexpected of the freshmen because the majority of the freshmen interviewed have been enrolled at the institution for only two quarters. A small but significant number (11%) of freshmen but no seniors identified a learning community as their most engaged activity. This result was not surprising as many of the freshmen were recruited for the interviews from learning communities.

Type of Activity Which Engages Students Intellectually	Seniors	Freshmen
Particular Course	32 (47%)	52 (57%)
Learning Community	0 (0)	10 (11%)
Particular Instructor	14 (21%)	11 (12%)
Out of Class Experience	17 (25%)	18 (20%)
Program (Coherently organized set of experiences)	5 (7%)	0 (0)
TOTAL RESPONSES	68	91

Responses which fell into the category of “out of class experience” were further analyzed with regards to the nature of the student experience and the outcome the student identified which resulted from the experience.

SENIOR		FRESHMAN	
Nature of Experience		Nature of Experience	
Study Abroad	6 (26%)	University Exposure	15 (79%)
Internship	5 (22%)	Speaker	3 (16%)
Student Teaching	4 (17%)	Career Event	1 (5%)
Community Service	3 (13%)		
Speaker	3 (13%)		
Undergraduate Research	2 (9%)		
TOTAL	23	TOTAL	19

SENIOR		FRESHMAN	
Outcome		Outcome	
Intellectual Growth	11 (44%)	Intellectual Growth	15 (79%)
Personal Agency	7 (28%)	Personal Agency	3 (16%)
Career Direction	7 (28%)	Career Direction	1 (5%)
TOTAL	25	TOTAL	19

Not surprisingly, the variety of the identified experiences was much greater in the senior than freshman population. Of the seniors who identified an out of class experience as their most intellectually engaged activity, nearly half (48%) identified either a study abroad or internship experience. If student teaching is included in these results, 65% of the responses identify one of these three activities. Forty-four percent of the responses categorized the outcome as having benefited them in their intellectual growth, 28% of out of class experiences were designated as leading to personal agency, and 28% affected students’ career direction.

The detailed analysis of the freshman out of class responses produced less varied results. A large majority (79%) of the freshmen who responded with an out of class experience described an activity related to their living, attending school, or adjustment to a residential campus such as Ohio University. These activities included adjusting to life on their own, out of class conversations with other students, and meeting people with different social and ethnic backgrounds. The majority of students' responses (79%) were categorized as leading to significant intellectual growth, and 16% of the responses were categorized as leading to personal agency.

In response to the question about what experience they had found most compelling and interesting thus far during their time at OU, 21% of the Seniors and 12% of the Freshmen described particular teachers. After analyzing these responses, the following patterns were identified: 1) students valued teachers who did not impose their own views and encouraged open class discussion; 2) students appreciated teachers who shared relevant, real world experiences with the class; 3) students noted teachers who appeared to be particularly knowledgeable and enthusiastic about teaching; 4) students described situations that led to increased confidence or self awareness as learners.

Seniors: Fifty percent of students recalled teachers who did not impose their own views on class topics but instead fostered open discussion of opposing views and gave equal time to everyone's' viewpoints.

Twenty-five percent described the value of having instructors who shared relevant, real world experiences with the class. For example, one student recalled a history teacher who was *"trained by the CIA and had real world experiences; he brought a unique approach vs. just the standard history prof. 'this is what happened on this date, etc. '"*

One senior recalled a learning situation that led to a sense of pride and confidence: *"I wrote a paper for my modern philosophy class. . . but I really felt like I did something. I just had so many books on the topic; I was able to combine and synthesize different criticisms and different strengths I felt really proud. I sent it to Professor X, he's my friend, too, and he really loved it. So that was just something I was proud of, writing a paper in philosophy that another philosopher liked."*

Freshmen: Twenty-three percent of freshmen focused on particular instructors because of how knowledgeable they were. *"My teacher--I like him. He gets up there and he remembers all that stuff. My classmates and I talked about that, because he gets up there and he remembers all that stuff. That kind of surprised me. I like the whole thinking process--I enjoy that."*

Similar to several seniors' responses, 23% of freshmen found it especially valuable when instructors shared personal experience that related to coursework: *"The first education course I took this quarter and the class itself wasn't challenging and I didn't feel like I learned a lot from*

the textbook. But my professor was, she'd been teaching like for 30 years and had a lot of great experiences to share and advice, and so I learned a lot from her."

Thirty percent of freshmen described experiences with instructors that led to an increase in their confidence or self knowledge as learners. For example, one student explained that being exposed to different styles of teaching and different types of professors helped her to make decisions that led to better learning situations. *"Just because I don't want to, like I want to further my learning so the best way to do that is to find professors that work best for me. So just being able to learn at that higher level is important to me."*

Similar to seniors, one freshman described an instructor who did not impose his opinions: *"He never gave us his opinions, and he always played Devil's Advocate with you, no matter, he always argued on the other side. And so it really got me to look at all the different points of view and all different perspectives which I think has helped me to grow as a person, that I can put myself in other people's shoes, and always try to be open minded and know that there are always lots of different solutions. . . . In that way I'm a little more humble because I know there are a lot of other options and opinions. It was pretty eye opening for me."*

There are a number of conclusions that can be drawn from these limited results. The vast majority of the students who were interviewed, both senior and freshman, identified a particular class or exposure to an influential instructor as their most intellectually engaged activity (68% senior, 69% freshman). Students who singled out a particular instructor as part of their response to the question valued those who are experienced in the discipline, open minded, invited multiple viewpoints in their classes and who are flexible. A significant number of students interviewed identified out of class activities such as study abroad experiences, internships, community service activities, and public speakers hosted by the institution. The results demonstrate that the value of these out of classroom activities should not be underestimated as a contributor to the intellectual growth and development of our students. The results indicate that while these out of class activities appear (not surprisingly) to have more of an influence on upper-class students, these experiences, even an experience as simple as living on a residential campus, have a significant impact on the intellectual development of our underclass students as well.

Response Number	Nature of Out of Class Experience	Outcome of Experience
5	Study Abroad	Career Direction
6	Community Service	Personal Agency
20	Student Teaching	Intellectual Growth/Personal Agency
21	Student Teaching/Study Abroad	Intellectual Growth/Personal Agency
22	Student Teaching	Intellectual Growth
23	Community Service	Personal Agency
25	Speaker	Career Direction/Personal Agency
26	Undergraduate Research	Career Direction/Intellectual Growth
28	Undergraduate Research	Intellectual Growth

29	Community Service	Personal Agency
30	Internship	Intellectual Growth
31	Study Abroad	Intellectual Growth
32	Internship	Intellectual Growth
35	Speaker	Career Direction/Intellectual Growth
50	Student Teaching	Intellectual Growth
53	Study Aboard	NA
62	Internship/Study Abroad	Career Direction/Personal Agency
64	Internship/Study Abroad	Career Direction
70	Speaker	Intellectual Growth
71	Internship	Career Direction

Sample responses from seniors' interviews regarding out of class experiences

1) Career Direction

—Study abroad in Spain—spent 6 months; learning a language from a different point of view Student taught in Mexico.”

—Looking for jobs in Hispanic community because of these experiences.”

2) Intellectual Growth

—I'd say props to the university for offering so many opportunities to hear from speakers. I have heard so many interesting lectures here; I have heard from people around the world, famous journalists. I really enjoyed when Erin Brokovich came, when Bob Woodward came. Not to mention, I've heard from all the professionals in my field on a one on one basis. Those were the most intellectually compelling situations. It's like look at these amazing people! I would never be able to learn that in the classroom, but Ohio University provided those opportunities. Really interesting sessions on whatever, out of this world topics. I couldn't have asked for better opportunities outside of the classroom.”

3) Personal Agency

—It had to have been the math classes that I took. I would say that's definitely number one, going to the inner city schools in Columbus and we also went to a teacher conference. We were there for the whole day and there was a man that spoke by the name of Ron Clark; there's a made for TV movie about him--Chandler [the actor] from Friends played him, and it's called the Ron Clark Story. He was my inspiration for this whole inner city school thing. He spoke to us, he was the keynote speaker, he was jumping on tables, he was going back and forth, he was having us singing, and he was like this is how a classroom needs to be. He just kind of opened up our eyes to this more, to this contemporary idea of a classroom and a more fun and interactive learning experience with different instructions and students that are learning. The way he was reaching out to these kids, they were just like, he loves us, and you could see these kids

crying and it was the most inspirational thing that made me realize you can do anything you put your mind to as long as you have the effort.”

Response Number	Nature of Out of Class Experience	Outcome of Experience
2	Career Event	Career Direction
9	University Exposure	Intellectual Growth
13	University Exposure	Personal Agency
16	University Exposure	Intellectual Growth
22	University Exposure	Intellectual Growth
23	Speaker	Intellectual Growth
24	University Exposure	Intellectual Growth
25	University Exposure	Intellectual Growth
27	University Exposure/Speaker	Intellectual Growth
28	University Exposure	Intellectual Growth
30	Speaker	Intellectual Growth
31	University Exposure	Intellectual Growth/Personal Agency
39	University Exposure	Intellectual Growth
45	University Exposure	Intellectual Growth
69	University Exposure	Personal Agency
71	University Exposure	Intellectual Growth
78	University Exposure	Intellectual Growth
80	University Exposure	Intellectual Growth

Sample responses from freshmen interviews regarding out of class experiences

1) Career Direction

—I would say, although I didn't apply for an interview, . . . the Business Fair. Just walking around and I really need to realize that I need to step up my game and do something that makes me stand out. I would talk to some people and I would be like, —hey, I'm a freshman. I was wondering what I have to do to get an interview with you guys.” Oh well, that's new. They want something different. It has to be good. I have to start thinking of stuff I can do that few people have done that will make me stand out.”

2) Intellectual Growth

—I went to the diversity exchange and I wasn't going to go. It was a thing like for our UC class and was mandatory, or it was for extra credit. So I went. I thought it would be stupid and dumb, listening to this panel talk. And no, it was so interesting. They had this panel. It was like 6 or 7 people up there and they just asked different questions about why you think OU suffers and people asked questions about diversity. But sitting there, it was just so interesting. I left

thinking that I need to open my eyes. I need to talk to more people around here, but just because they look funny or dress differently [I have not], so it was kind of like a personal learning experience. I'm glad that he made me go for extra credit because it was really eye opening. One lady on the panel was from California – LA– so they asked her if OU was diverse and she said no, not at all. She said [this] because she sees so many different things in LA, but it's so weird to us-- because this place is really diverse compared to our home town. It was just really interesting to hear -- the whole panel was just diverse. One of them had a learning disability, one of them was a different race, so it was just really interesting to hear their stories and hear the things that people have said to them before. It made you think about life a little bit."

3) Personal Agency

—Probably learning how to deal with people that you don't get along with. I didn't get along with my first roommate and that was really, really hard because I eventually just had to move out. And I have a lot of relatives that go here and we have different opinions. Like me and my brother have different opinions on my dad, because I haven't seen him in a long time. But we both attend here and he actually lives with him. So at first it was really hard, because obviously I love my brother, but it's hard because he's friends with all the same people I am and so they hang out with him. [I have] learned to get past things that are never going to change. So just learning how to, like I would say, to avoid the situation, but deal with the situation and know what you can say and what you can't say and what's going to cause a problem and what's not. Not feeling the fire. If it's not going to change, then just keep going on with your time."

Research Question 4. Where are students getting general education knowledge and skills-- from outlets other than general education courses? Are students describing their courses as the source? Do students in different academic programs have different outcomes?

The question is in three parts: (1) what outlets, other than general education courses are students gaining general education knowledge and skills; (2) in the interviews, are students describing their courses as the source; (3) do students in different programs have different outcomes as demonstrated by survey reports? The answers to parts (1) and (2) have come from a detailed analysis of the responses to questions asked of the senior students during the interviews. In that detailed analysis it became obvious that only responses to two questions provided material that addressed the research questions. Those questions are "Describe to me the most intellectually compelling, the most interesting learning experience you've had here at Ohio University. Why did it interest you?" and "Let's look at the questions you answered from the two different surveys you just completed. Can you name three things from each that you would say you've gained the most from your education here at Ohio University? Please tell me a bit about why you selected these particular things." The responses to a third question, "Now, please think

about your general education experiences. What did you gain from these experiences?”, gave insight into the effectiveness of our general education. They demonstrated that the general education courses are an important source of knowledge and skills. This served to confirm the findings from the other two interview questions where we found that general education courses were a significant but not the dominate source of general education skills and knowledge. In particular, Tier I and Tier II courses formed a foundation upon which students built their General Education as well as knowledge for their major.

Section 1: What outlets, other than general education courses are students gaining general education knowledge and skills?

From the two sets of responses from the seniors that were analyzed in detail, “describe to me the most intellectually compelling ...” and “... Can you name three things ...”, we found from both that 70% indentified activities outside of their general education courses as being a source of outcomes related to general education knowledge or skills, this included both courses they had taken and extracurricular activities. This is perhaps to be expected since disciplines have identified these courses as being needed by their students. Also, many extracurricular activities are provided by these disciplines or are provided by the University at the encouragement of the faculty and students. It is instructive to read some of the responses and particularly insightful examples are included below.

Acquiring job or work-related knowledge and skills. I feel like I've acquired job and work related knowledge and skills very much so. Writing clearly and effectively. Speaking clearly and effectively, I'd have liked to practice that even more so I didn't mark it quite as high but I think that it's helped me come a long way.

It's not that any one assignment was to challenging, it's just for me my biggest struggle has been time management with figuring out how much time can I spend on this to do a good job and then be able to have enough time to do it. So I might two papers due one day and I start working on them and I work on the first one to long, and I put my heart and soul into it and the second one I'm just like, there's just not enough time in the day, I don't have enough energy, I'm just going to have to regurgitate what I've learned and not put anything extra into it. I feel like doing that and being under stress and being able to get through it, even though you might not have done your best and being able to reflect on it and say what could I have done better, that has helped me be able to confront challenges in life. That's what challenges are it's like you see something and you're like I can't do this, I don't have enough of whatever but you still have to, you have to figure out a way to do it. Acquiring job or work-related knowledge and skills because in my major area, Spanish education, I feel like in both modern language department and college of education those classes have just been, I can't imagine having classes that were set up any other

way than what I've taken. Especially in the college of ed because I feel like I still haven't done my student teaching but I feel like I could teach today. Those classes were awesome. Maybe the working effectively with others is something I feel like I've defiantly learned. I think maybe understanding people of other racial or ethnic backgrounds kind of sticks out. From some of my classes, I mean I've seen it in history, psychology, women's studies and philosophy so I mean you see that often. And speaking clearly and effectively.

I hated writing in high school and was horrible at it. I would just answer the question and not elaborate. Now I can form an entire research paper, how to show my thoughts are backed by others, where I got the thoughts, so my writing has definitely improved.

I grew up around here, so we're not the most monetarily able community. I didn't have a computer until I was in high school. Now I have the technology available, I can use the internet to search stuff by using search engines to sort out the bad information. I can use various programs to make presentations, write papers, and to make math presentations.

Because I feel like that [ability to think analytically] is something we have been forced to do the whole time I was here. The science classes, the math classes, and almost all the way through my engineering classes it has been all about approaching problems analytically.

Thinking critically and analytically is definitely one that I've, number five, that I've definitely noticed in myself. I am also a member of the OU Skeptics Society and we deal with all of these claims such as supernatural claims – people claiming to have alternate medicine, for example homeopathic medicine which is based on water. And basically it's just taught me when someone makes some sort of extraordinary claim to make sure that there is proper evidence to back it up. Also watching the news, especially during the Presidential election, hearing these debates and arguments and seeing kind of logical fallacies that people use, like appealing to the populous – most Americans think x therefore it's probably right. Some things like that – it helps you to detect bias in reporting, etc. And just reading books for my own personal pleasure, I can just see when someone makes a claim you won't just accept it, you go back at the end of the book and look at the citation, make sure its properly documented. So that's something that I really have taught myself. Know that my experience here at OU has definitely helped.

My accounting courses have taught me to think analytically, especially the BAM series of courses.

The business cluster helped me develop oral communication skills. I also was required to give several presentations in my accounting classes.

My business classes helped me develop my technology skills. Technology is the primary tool for business so you have to know and be comfortable with the use of technology. During my college years I have learned so much more on how to use the Microsoft Office software; also learning to locate information on the internet and the use of different software sources.

My political science minor classes have encouraged my interest in voting and politics. I found I am passionate about these activities now.

My English classes and my Sociology classes have taught me how to think critically and I have learned to develop the skills to solve problems. Sciences classes have taught me how to apply the scientific method which will help me in my career. My English and science classes have helped prepare me to write analytically.

Section 2: In the interviews, are students describing their courses as the source?

From the two sets of responses that were analyzed in detail, “describe to me the most intellectually compelling ...” and “... Can you name three things ...”, we found that for both 30% of the responses identified general education courses, 40% and 50% respectively identified non-general education courses, and 30% and 20% respectively identified activities outside of their courses. From this we may conclude that coursework is the predominant source of general education knowledge and skills but that non-general education courses are more important as a source than general education courses. However, the general education courses are a very significant part of that source. This is not unexpected since most disciplines incorporate general education skills and knowledge into their programs by design because they know that these are required of their students once they graduate. Often this is also reinforced by their respective accrediting body or by some other external oversight body such as a board of visitors.

Section 3: Do student in different academic programs have different outcomes as demonstrated by test scores and Alumni Survey results?

Survey of Alumni results from the graduating classes of 2001-02 and 2002-03 were analyzed to determine if there were differences in outcomes among graduates from different academic programs of study. To determine if there are differences among graduates from different academic programs on their perceptions of Ohio University’s effectiveness in developing these competencies, analysis of variance (ANOVA) was conducted on each of the fourteen competencies. The dependent variable was the mean rating for each competency and the independent variable used was academic college. Statistically significant differences were not found for two of the competencies: ability to acquire new skills and understanding on my own and ability to evaluate and choose between alternative courses of action. However, statistically significant differences were found on twelve of the fourteen competencies.

Ability to think analytically--Graduates from the College of Engineering perceived Ohio University (OU) as significantly more effective than other academic programs in developing their ability to think analytically. Arts & Sciences and College of Business graduates perceived OU as significantly more effective on this competency than graduates from the College of Education and Health and Human Services.

Ability to apply major field knowledge to new problems--Graduates from the College of Engineering perceived OU as significantly more effective on developing their ability to apply major field knowledge to new problems than Arts & Sciences, College of Business and College of Communication graduates.

Ability to write well--Graduates from the College of Communication perceived OU as significantly more effective on developing their ability to write well than the College of Education, College of Engineering, College of Fine Arts and Health and Human Services, Arts & Sciences, College of Business and College of Communication graduates. Arts & Sciences and College of Business graduates perceived OU as significantly more effective on this competency than graduates from the College of Fine Arts.

Ability to communicate effectively orally--Graduates from the College of Business perceived OU as significantly more effective on developing their ability to communicate effectively orally than the graduates from Arts and Sciences, College of Education, College of Engineering, and College of Fine Arts. College of Communication graduates perceived OU as significantly more effective on this competency than graduates from Arts and Sciences, College of Education and College of Engineering. Health and Human Services graduates perceived OU as significantly more effective on developing their ability to communicate orally than the graduates from Arts & Sciences and the College of Engineering.

Ability to formulate creative and original ideas and solutions--College of Fine Arts graduates perceived OU as significantly more effective on developing their ability to formulate creative and original ideas and solutions than the graduates from Arts and Sciences, College of Business, College of Engineering, and Health & Human Services. College of Communication graduates perceived OU as significantly more effective on this competency than graduates from Arts and Sciences

Ability to convey meaning through artistic and creative expression--College of Fine Arts graduates perceived OU as significantly more effective on developing their ability to convey meaning through artistic and creative expression than the graduates from all of the other colleges. Graduates from Health & Human Services and University College perceived OU as significantly more effective on this competency than graduates from the College of Business and the College of Engineering. College of Education and College of Communication graduates perceived OU as significantly more effective on developing their ability to convey meaning through artistic and creative expression than the graduates from Arts & Sciences, College of Business and College of Engineering.

Ability to cope with complex moral and ethical issues--Arts & Sciences, College of Communication and Health & Human Services graduates perceived OU as significantly more effective on developing their ability to cope with complex moral and ethical issues than the graduates from the College of Engineering.

Ability to place current problems in historical, cultural, and philosophical perspective--Arts & Sciences graduates perceived OU as significantly more effective on developing their ability to place current problems in historical, cultural, and philosophical perspective than the graduates from the College of Business, College of Engineering and Health & Human Services. Graduates from the College of Communication, College of Education, College of Fine Arts and University College perceived OU as significantly more effective on this competency than graduates from the College of Engineering.

Sensitivity to feelings and perceptions of others--Arts & Sciences, College of Communication, College of Education, Health & Human Services and University College graduates perceived OU as significantly more effective on developing their sensitivity to feelings and perceptions of others than the graduates from the College of Engineering.

Ability to work in a team setting--College of Business graduates perceived OU as significantly more effective on developing their ability to work in a team setting than the graduates from Arts & Sciences, College of Communication, College of Education, and Health & Human Services. Graduates from the College of Engineering and Health & Human Services perceived OU as significantly more effective on this competency than graduates from Arts & Sciences.

Ability to use the computer as an analytical tool--Graduates from the College of Business and College of Engineering perceived OU as significantly more effective on developing their ability to use the computer as an analytical tool than all of the other colleges. College of Communication graduates perceived OU as significantly more effective on this competency than graduates from the College of Fine Arts.

Ability to participate in community service activities--Graduates from Health & Human Services perceived OU as significantly more effective on developing their ability to participate in community service activities than graduates from the College of Engineering.

Research Question 5. What changes would seniors make in the general education courses they chose? In Tier II? What changes would seniors make in the way the general education courses were taught?

In answering this research question, two of the interview questions were used: " If you could start over again, knowing what you know now, what changes would you make in the courses that you chose to take?", which was asked at the end of the interview. The other question, asked in the middle of the interview, was "Now please describe to me the least intellectually compelling, the least interesting learning experience you've had here at Ohio

University." This question was included in this analysis because it is thematically related to a state of dissonance, which can lead to change.

Changes seniors said they would make

Transcribed responses to each question were reviewed by three members of the Working Group and organized into common themes. Eighty-two distinct responses to the question about changes seniors said they would make: Following are the six themes that emerged from the analysis of responses to the question (including the numbers of comments):

- take different general education classes (31)
- take the same courses but in a different sequence or schedule (16)
- take different elective classes (13)
- change their major (10)
- make no changes at all (8)
- would have worked harder in the courses they took (4)

Take different general education classes (31)

The most frequently occurring statements, which led to this theme, had to do with taking different general education courses. Many students indicated that they wished they had taken more general education courses, particularly in languages. For example,

I would have chosen a different set of Tier II courses to complete, more sociology and criminology and less psychology. I would have also taken a different language. I took Spanish in high school and thinking it would be easier, I also completed 2 years of Spanish at OU. If I had it to do all over, I would have completed two different languages for my two year requirement. I would also have taken more math. I'm not very good at math and as it will be required in my job, more courses would help me get better at the subject.

Take the same courses but in a different sequence or schedule (16)

Students indicated that they were satisfied with the courses they took but that they wished they had taken them at different times in their college career. For example,

I don't know about the courses I would choose to take, but . . . I think I would have chosen a more direct path because I was all over the place for a while with like the classes I was taking. It helped with my General Education but I think I wasted my time with classes I didn't necessarily have to take. But, I don't know, when I was a freshman it was hard to put everything into perspective, like how it would all come around. But now everything's coming together, like everything I've done. And now I can appreciate it more . . . I think that's pretty much it. I like the way everything turned out, I guess I just wouldn't have wasted time on a couple of classes that weren't necessary.

Take different elective classes (13)

Students indicated that they wished they had taken more variety of elective courses. For example,

I took a lot of different classes but if I could change it in anyway, I would throw in a few different electives that would interest me more. I think I stuck to my DARS a lot and wanted to graduate on time so I didn't look at those different options.

Change their major (10)

Ten students said they would change their major. Many reasons were given. For example, *I would have definitely come in as an education major and taken the courses I was supposed to take as a freshman and sophomore so that I could have graduated and not have had to do my student teaching in the fall and take summer courses. I would not have changed my major so many times so I could graduate on time . . .*

Make no changes at all (8)

A few comments indicated that either they didn't know what they would change or that they would make no changes. For example,

I don't know if I would really make any changes. Actually, one thing I didn't really realize until this year is that teachers are willing to waive prerequisites if you're interested in a subject. I know I sat through courses that I wasn't really excited about just because I wanted to take the next level. I wish I had known about that earlier so I could have gotten right into what I wanted to take. But, I guess I'm pretty satisfied with what I ended up taking for the most part.

Would have worked harder in the courses they took (4)

A few comments indicated that students would have developed better study habits or that they would have taken their studies more seriously. For example,

I would study more, almost everyone can say that looking back.

Least intellectually interesting experience

Sixty-five distinct responses to the question about the least intellectually challenging experience question were recorded. Following are the six themes that emerged from the analysis of responses (including the numbers of comments):

- experiences related to poor instruction (23)
- choice of subject (20)
- course material was not challenging (11)
- bias in class material (5)
- general education is not necessary (3)
- nothing (3)

Experiences related to poor instruction (23)

The most frequently recorded comments had to do with students' perception of poor instruction due to lack of engagement by the instructor, large lecture format, or the student being bored with the method of instruction. For example,

Professors read off slides, very boring, no classroom activities or connection with real world, no outside class work except to read and go to class and go over what you've read; needs to be more in depth than what's in the textbook

Choice of subject (20)

Individual students indicated a variety of subjects with which they had difficulty, didn't like, or didn't believe were useful or important. For example,

I completed a University College study skills course the first quarter of my freshman year at the encouragement of my parents. The course had good intentions but I was bored. I really did not take the class seriously. If I would take this class now I think I would have worked harder and gotten more out of it.

Course material was not challenging (11)

Students expressed dissatisfaction with the level of challenge in course materials. For example,

Probably one of the intro level courses in the first couple of years. It was simplistic learning and rote memorization as opposed to real learning. The Profs all seemed to dumb it down and think it was an easy course so students did too. Not everybody would agree because they didn't want real learning. They liked the simple stuff.

Bias in class material (5)

A few students expressed frustration with instructors not being open to different viewpoints, which interfered with learning. For example,

. . . Awful class. Can't even remember what the class was about content-wise. Prof would scream at the people who had different opinions. Prof cried one day. S/he always thought s/he was right and nobody else could have an idea. The course was a disaster.

General education is not necessary (3)

A small number of students indicated that they would rather not have taken general education courses at all. Different reasons were given. For example,

The general education classes I have taken were not very stimulating. They were not very fulfilling or interesting to me. I generally feel my general education classes were a waste of time and I feel other students I know would also agree. I do understand why the university requires the classes in order to broaden oneself but I think general education classes are more useful to

students who are unclear as to what they want to major in. If you know what you want to major in you should be able to focus on the classes for your major.

Nothing (3)

A small number of students indicated that there were none of these experiences that they could recall. For example,
I don't think I've had anything that I haven't walked away from learning something. I've disliked things and things haven't been interesting to me.

Faculty Survey of Learning Objectives

Background and Design of the Study

In addition to the student assessment data, Executive Vice President and Provost Pam Benoit suggested that the Working Group undertake a survey of the faculty who teach general education courses at Ohio University. Using the faculty interview data and the University's general education learning objectives as the template, Institutional Research staff and the Working Group devised a questionnaire that asked faculty about different aspects of the current curriculum. The same learning objectives that were mapped into Survey of Alumni and National Survey of Student Engagement (NSSE) items were used. The first question asked faculty to rate to what extent should the undergraduate experience at Ohio University contribute to the knowledge, skills, and development of students on each of 18 learning objectives from the Survey of Alumni, on a four-point scale from "very much" to "very little." Following are the learning objectives:

- a. Ability to think analytically
- b. Ability to apply major field knowledge to new problems
- c. Ability to acquire new skills and understanding on their own
- d. Ability to write well
- e. Ability to communicate effectively orally
- f. Ability to evaluate and choose between alternative courses of action
- g. Ability to formulate creative and original ideas and solutions
- h. Ability to convey meaning through artistic and creative expression
- i. Ability to cope with complex moral and ethical issues
- j. Ability to place current problems in historical, cultural, and philosophical perspective
- k. Sensitivity to feelings and perceptions of others
- l. Ability to work in a team setting
- m. Ability to use the computer as an analytical tool
- n. Ability to participate in community service activities
- o. Ability to apply scientific methods to understand the natural and physical world
- p. Ability to write analytically, including developing an argument and providing supporting evidence
- q. Ability to apply social science theories and methods to understand contemporary or historical issues
- r. Ability to use technology to locate, present and analyze information
- s. Ability to appreciate artistic expression

Respondents were then asked to indicate which of the three learning objectives were most and least important to them as an instructor, respectively, and their reasons for choosing them.

Faculty were then asked to rate how important it is that students have each of 14 learning

objectives from the NSSE instrument, on a four-point scale from "very important" to "not important." Following are these learning objectives:

- a. Acquiring a broad general education
- b. Acquiring job or work-related knowledge and skills
- c. Writing clearly and effectively
- d. Speaking clearly and effectively
- e. Thinking critically and analytically
- f. Analyzing quantitative problems
- g. Using computing and information technology
- h. Working effectively with others
- i. Voting in local, state, or national elections
- j. Learning effectively on their own
- k. Understanding themselves
- l. Understanding people of other racial and ethnic backgrounds
- m. Solving complex real-world problems
- n. Developing a personal code of values and ethics
- o. Contributing to the welfare of their community
- p. Developing a passion for their work or other life endeavors
- q. Being willing to confront and work through challenges in life
- r. Being knowledgeable about world events

Respondents were then asked to indicate the most and least important objectives to them as an instructor of a particular general education course they were to keep in mind while answering, respectively, and their reasons for choosing them.

Faculty were then asked to indicate the greatest strength(s) of the current general education curriculum and the greatest weakness(es) of the general education curriculum.

Instructors of record for Tier I, II, or III courses in fall, winter, or spring 2009-10 were surveyed in spring quarter via an on-line survey. Of the 1,144 instructors, 303 or 27 percent responded. Respondents were generally representative of the population in characteristics such as gender, campus, longevity at Ohio University, and type of employee. About 83 percent of the respondents were faculty, nearly all Group I faculty. Others were TA's and non-faculty employees.

Responses to each item were tallied, and tables present frequency distributions and item means. For the questions in which faculty were asked to rank first, second, and third most important or first, second, and third least important, multiple responses were summed together as single rankings.

Results

Table 5 shows a summary of responses to the question, "to what extent should the undergraduate experience at OU contribute to the knowledge, skills and development of students in the following areas?" The table shows the percentage of respondents indicating "very much," "quite a bit," "some," and "very little"; the response means; and percentages of respondents ranking each item most important and least important. "Thinking critically and analytically" and "writing clearly and effectively" were rated and ranked the most highly of all the items.

Table 5. Faculty Responses to Learning Objectives Items

	Item Ratings				Response Mean	Item Rankings	
	Very Much	Quite a Bit	Some	Very Little		Most	Least
e. Thinking critically and analytically	89%	10%	1%	0%	1.12	80%	1%
c. Writing clearly and effectively	81%	17%	1%	1%	1.22	47%	1%
d. Speaking clearly and effectively	68%	27%	4%	1%	1.38	11%	1%
a. Acquiring a broad general education	68%	25%	6%	1%	1.40	44%	6%
j. Learning effectively on their own	61%	32%	6%	1%	1.47	22%	4%
m. Solving complex real-world problems	45%	39%	13%	3%	1.74	10%	12%
h. Working effectively with others	46%	34%	19%	1%	1.75	8%	7%
f. Analyzing quantitative problems	39%	42%	17%	2%	1.82	8%	19%
l. Understanding people of other racial and ethnic backgrounds	42%	36%	19%	3%	1.83	9%	11%
r. Being knowledgeable about world events	38%	39%	21%	2%	1.87	5%	14%
g. Using computing and information technology	34%	45%	20%	1%	1.88	2%	18%
n. Developing a personal code of values and ethics	40%	36%	19%	5%	1.89	6%	23%
p. Developing a passion for their work or other life endeavors	39%	35%	21%	5%	1.92	11%	17%

q. Being willing to confront and work through challenges in life	35%	39%	20%	6%	1.97	6%	18%
b. Acquiring job or work-related knowledge and skills	33%	39%	23%	5%	2.00	18%	23%
k. Understanding themselves	36%	33%	25%	6%	2.01	8%	28%
o. Contributing to the welfare of their community	26%	38%	30%	6%	2.16	2%	19%
i. Voting in local, state, or national elections	16%	23%	37%	24%	2.69	1%	63%

"Learning effectively on their own" was ranked third most important. "Speaking clearly and effectively" was rated highly but ranked among the least important.

Among the least important, "voting in local, state, or national elections" was ranked the least important and also rated of very little importance. "Understanding themselves," "acquiring job or work-related knowledge and skills," and "developing a personal code of values and ethics" also were ranked least important.

Mixed rankings of importance were given to "acquiring job or work-related knowledge and skills." Eighteen percent of the responding faculty said this was most important, and twenty-three percent of them said it was least important.

Faculty were asked to indicate the reasons they selected the general learning objectives as most important. Two hundred fifty unique responses were recorded and were summarized into broad categories as follows:

- Contributes to satisfaction and/or success in life (79)
- Develops skill and/or contributes to success in work (43)
- General faculty belief based on their experience (50)
- Important for giving students a broad education (28)
- Helps students develop as educated citizens (28)
- Related to academic subject or foundation necessary for academic success (15)

Examples of comments from each of these themes are as follows:

Contributes to satisfaction and/or success in life:

I believe these 3 are important to anyone in any position. They will also allow one to function better in society. A person that is happy in their position in life will be a better employee.

Develops skill and/or contributes to success in work

I think an education is more than acquiring knowledge, it should be about creating oneself, understanding how to learn, discovering work they are passionate about.

General faculty belief based on their experience

All three of these reflect higher order thinking skills, and compassion/responsibility towards society. In my opinion, if students achieve in these areas, the others fall into place.

Important for giving students a broad education

It is my believe our students lack a sense of the world around them, curiosity about it, the challenge is to help them break their isolation.

Helps students develop as educated citizens

With these abilities and skills, I believe that students can be forces for the good in their communities, families, and countries.

Related to academic subject or foundation necessary for academic success

Because the Intro subject matter I teach speaks to these three most. However, this is a rather false question, since many of the others in the list are also addressed in my courses and are of key concern in my Intro course design. Also many of these objectives are synergistic, it is not an either/or situation.

Faculty were asked to indicate the reasons they selected the learning objectives as least important. Two hundred thirty-six unique responses were recorded and were summarized into broad categories as follows:

Not University's responsibility (154)

Courses not appropriate to develop objectives (35)

Should occur elsewhere in students' experiences (34)

Secondary effect of University education (25)

Examples of comments from each of these themes are as follows:

Not University's responsibility

These low-rated objectives are important, perhaps essential for development into a good and contributing member of society. But I do not think they are the goal of a University's general education program.

Courses not appropriate to develop objectives

These objectives, and others like them, are things that are personal and/or vocational; they are not properly the subjects of classroom instruction. But they can be derived indirectly from the

examination of literature, history, and the arts, such as would be required in any good general education program.

Should occur elsewhere in students' experiences

All of these are rather personal and need to be cultivated by the student him/herself.

Secondary effect of University education

These will typically fall into place when the other aspects are developed well.

For the next set of learning objectives, faculty respondents were asked to think of one of the general education courses they had taught during the current academic year, record the course in the questionnaire, and base their responses on this particular course. Table 6 shows a summary of responses to the question, "how important to you is it that your students have the following abilities as a result of your general education course?" The table shows the percentage of respondents indicating "very important," "somewhat important," "somewhat unimportant," "not at all important,"; the response means; and percentages of respondents ranking each item most important and least important.

Table 6. Faculty Responses to Course-Based Learning Objectives

	Item Ratings				Response Mean	Item Rankings	
	Very Important	Somewhat Important	Somewhat Unimportant	Not at all Important		Most	Least
a. Ability to think analytically	79%	19%	2%	0%	1.23	67%	0%
c. Ability to acquire new skills/ understanding on their own	55%	34%	10%	1%	1.57	23%	1%
p. Ability to write analytically, including developing an argument and providing supporting evidence	55%	25%	14%	6%	1.71	26%	2%
d. Ability to write well	51%	26%	19%	4%	1.76	30%	3%
b. Ability to apply major field knowledge to new problems	44%	36%	16%	4%	1.80	22%	4%

g. Ability to formulate creative and original ideas and solutions	43%	34%	18%	5%	1.85	18%	4%
f. Ability to evaluate and choose between alternative courses of action	38%	37%	20%	5%	1.92	14%	3%
e. Ability to communicate effectively orally	37%	33%	21%	9%	2.02	11%	4%
j. Ability to place current problems in historical, cultural, and philosophical perspective	36%	27%	23%	14%	2.15	17%	7%
r. Ability to use technology to locate, present and analyze information	27%	40%	22%	11%	2.17	8%	8%
i. Ability to cope with complex moral and ethical issues	30%	27%	26%	17%	2.30	8%	13%
k. Sensitivity to feelings and perceptions of others	29%	28%	27%	16%	2.30	9%	12%
l. Ability to work in a team setting	21%	33%	28%	18%	2.43	7%	15%
o. Ability to apply scientific methods to understand the natural and physical world	29%	24%	18%	29%	2.47	18%	33%
m. Ability to use the computer as an analytical tool	16%	30%	31%	23%	2.61	3%	22%
q. Ability to apply social science theories and methods to understand contemporary or historical issues	21%	26%	19%	34%	2.66	9%	27%
s. Ability to appreciate artistic expression	15%	21%	26%	38%	2.87	5%	52%

h. Ability to convey meaning through artistic and creative expression	15%	20%	26%	39%	2.89	4%	39%
n. Ability to participate in community service activities	5%	16%	29%	50%	3.24	1%	47%

The "ability to think analytically" was rated and ranked the most important, followed by "ability to write well," "ability to write analytically, including developing an argument and providing supporting evidence," "ability to acquire new skills and understanding on their own," and "ability to formulate creative and original ideas and solutions." Among the least important were "ability to participate in community service activities," "ability to convey meaning through artistic and creative expression," "ability to appreciate artistic expression," and "ability to apply social science theories and methods to understand contemporary or historical issues."

Mixed rankings and ratings of importance were given to "ability to apply scientific methods to understand the natural and physical world." Thirty-three percent of the responding faculty said this was least important, and eighteen percent of them said it was most important.

Faculty were asked to indicate the reasons they selected the course-based learning objectives as most important. Two hundred seventeen unique responses were recorded and were summarized into broad categories as follows:

Objective is relevant to the subject matter of the course	76
Objective is relevant to the pedagogy of the course	38
Objective is a general or essential skill or goal for students	31
Objective is a goal of the course	23
Necessary for a well-rounded education	25
Necessary to succeed in the course	26
Necessary for becoming educated citizens	20
Necessary skill for further coursework or in discipline	16

Examples of comments from each of these themes are as follows:

Objective is relevant to the subject matter of the course

These describe some of the best outcomes for the student to acquire while in a Major's class or one that is aligned with the major!

Objective is relevant to the pedagogy of the course

These reasons are linked to the goals of the course that I teach. I want the students to be able to carefully reason in a scientifically supportable manner and to communicate their ideas clearly

Objective is a general or essential skill or goal for students

These skills are necessary when evaluating many issues in modern society and expressing a well-thought out and developed argument is essential in a rapidly changing work environment. Speed and efficiency, while important, have overshadowed, logical and analytical thought which should include understanding the history of the problem and coming up with a workable, innovative, yet informed decision.

Objective is a goal of the course

These objectives are an overview of what I would like my students to do after the course.

Necessary for a well-rounded education

These are life skills that can be used in any situation in life. Actually that are required to have a fulfilled, meaningful life no matter what direction a person takes.

Necessary to succeed in the course

These three objectives are necessary in order to complete the exams and projects required in this course.

Necessary for becoming educated citizens

this course attempts to help students improve their ability to understand their role in a global setting, as citizens and as such we must make decisions and choices, and consider the potential impact of those choices on others. I emphasize that there will always be uncertainty in science, nonetheless, we must make choices.

Necessary skill for further coursework or in discipline

They form the basis for learning in other areas.

Faculty were asked to indicate the reasons they selected the course-based learning objectives as least important. Two hundred fourteen unique responses were recorded and were summarized into broad categories as follows:

Objective is not directly relevant to unspecified course goals	99
Objective is not directly relevant to the subject matter	95
Objective is beyond the course level, size and/or subject scope	28
Objective is less important than others	17
Objective is not the responsibility of the course or of a university education	9

Examples of comments from each of these themes are as follows:

Objective is not directly relevant to unspecified course goals

I suspect there is little new under the sun and the problems we are dealing with in this class are not particularly new ones -- we write and think in this class -- therefore action isn't something that concerns me -- at least not in this setting.

Objective is not directly relevant to the subject matter

The class really does not have any artistic or social science component.

Objective is beyond the course level, size and/or subject scope

The large class sizes precludes team work. Computer skills are ubiquitous. Art expression is not applicable in social problems.

Objective is less important than others

They aren't typically necessary to being well educated.

Objective is not the responsibility of the course or of a university education

I think I goes beyond the scope of what a college education should be providing. There are too many that I would list equally at 2 and 3, since they are not practical in a large class, no matter how useful they might be in the abstract.

In separate open-ended questions, faculty were asked to describe the greatest strengths of the current general education curriculum and the greatest weaknesses of the general education curriculum. Two hundred fifteen unique strengths were recorded. They were summarized into broad categories as follows:

The breadth of knowledge it provides (84)

Meets students' educational needs (29)

Offers variety and flexibility (25)

Promotes critical and analytical thinking (13)

Writing (9)

Can't comment/ not aware of curriculum (21)

No strengths exist (5)

Examples of comments from each of these themes are as follows:

The breadth of knowledge it provides

Overall, the general education curriculum provides an excellent introductory survey of much that can be studied and thought about in the world. University students need that perspective in order to begin to shape their worldview and so they can understand problems others feel are important. The curriculum also serves to help students identify a field in which to specialize and perhaps explore as a career.

Meets students' educational needs

The current general education curriculum exposes the students to a wider background than they might normally take, hopefully educating them rather than training them.

Offers variety and flexibility

Wide range of general education requirements and a variety of classes that can fulfill them according to students' interests.

Promotes critical and analytical thinking

The strength is getting students to integrate across topics and to think critically

Writing

In terms of writing instruction, I think it is good that we have both a first-year and a junior-year composition requirement as we get a chance to help students develop their writing skills beyond the basic freshman level.

Can't comment/ not aware of curriculum

I'm not familiar enough with the general education curriculum at OU to critique it.

No strengths exist

Hmmm, I can't really think of one. I don't think that students really get the purpose of it.

Two hundred forty unique weaknesses were recorded. They were summarized into broad categories as follows:

Courses are too general/program is too broad/too many requirements (27)

Not enough academic rigor (21)

Writing requirement is inadequate (17)

Class sizes are too large (16)

Lack of funding/administrative support (13)

Student understanding/student readiness (21)

Structural weaknesses/content/disconnects (31)

Can't comment/ not aware of curriculum (15)

No weaknesses exist (12)

Examples of comments from each of these themes are as follows:

Courses are too general/program is too broad/too many requirements

I think that, in trying to provide a basic knowledge in many disciplines to large numbers of students, many students are required to take classes that are not relevant to their ultimate goals, that they don't care about, and that end up being an unnecessary burden on the student.

Not enough academic rigor

The requirements are in most cases minimal. Most students can graduate with little real understanding of natural science - certainly not enough to be informed citizens on technical topics. There are weaknesses in other areas as well, since the minimal (Tier II) requirements are quite modest.

Writing requirement is inadequate

Students at this school cannot write. Papers I have received show an enormous deficit in basic grammar, lack logical organization and reasoned arguments. Further, the majority of students don't seem to care that they cannot communicate through writing.

Class sizes are too large

Many general education classes have very high enrollments. This limits their chance to get to know their instructor and seriously constrains opportunities for exercises in analytical work, artistic expression, writing and oral presentation.

Lack of funding/administrative support

That the administration does not genuinely support the faculty in the endeavor of general ed. We're expected to make this happen, and happen well, but we don't have the support of our administration. Terribly disappointing.

Student understanding/student readiness

I believe that many students need more beginning analytical thinking, writing and communication skills courses. I am not sure that all of our students are ready for the beginning level classes that we currently offer. I have students who struggle with very basic concepts and who need more assistance and smaller class sizes - a ramp up.

Structural weaknesses/content/disconnects

So many: no overarching purpose; poorly enunciated purposes aims in the subcategories. Too little writing. Too many big classes that are about "stuff" rather than thinking within a domain of knowledge.

Can't comment/ not aware of curriculum

I'm not familiar enough with the general education curriculum at OU to critique it.

No weaknesses exist

I honestly can't think of any weaknesses.

Summary of Findings and Conclusions

The Survey of Alumni revealed that most of the respondents said they were extremely or very satisfied with the different components of the general education program (Tier I freshman writing; Tier I junior writing; Tier I quantitative reasoning; Tier II breadth of knowledge; and Tier III synthesis). Various competencies were rated for their necessity and for how well Ohio University helped develop them in the graduates five years after graduating. The competencies most frequently indicated as being necessary were the abilities to communicate orally, acquire new skills and understanding on one's own, and evaluate and choose between alternative courses of action. The competencies most frequently indicated as being developed at Ohio University were the abilities to think analytically, acquire new skills and understanding on one's own, and team work. The abilities to use the computer as an analytical tool, apply knowledge from one's major to new problems, and cope with complex moral and ethical issues increased in reported necessity and/or development at Ohio University from 1998 to 2003.

The ACT CAAP tests were chosen to determine whether Ohio University's students possess basic academic skills and to provide national comparisons to fulfill the VSA requirements. The winter and spring 2008 testing revealed that Ohio University students scored slightly above the national average for mathematics and English writing. In 2009-10 the CAAP testing revealed that freshmen scored slightly below the national averages for critical thinking and English writing. Seniors scored slightly above the national averages for critical thinking and English writing. Estimated learning gains provided by ACT for the VSA College Portrait revealed that Ohio University's students performed "the same as what would be expected at an institution with students of similar academic abilities" (based on ACT Composite scores).

The interview project examined the learning objectives that 59 students in their senior year at Ohio University identified as those they have gained most and least from their college education, and the reasons they gave for having selected those objectives. One group's analysis focused on students' *relative ranking* of learning objectives, in terms of the skills and types of knowledge the students felt they had gained most and least, relative to other learning objectives listed in the surveys. Several students mentioned explicitly during the interviews that they felt all of the learning objectives listed in the surveys were valuable and requested clarification that they were being asked to rank-order the learning objectives they felt they had mastered at the university. Following is a summary of conclusions from these data;

- The learning objectives identified *most* frequently by students as those they have gained most from their education include core liberal arts skills in analytic thinking, written and oral communication, as well as job or work-related knowledge/skills and the ability to

work effectively in teams, and several learning objectives related to lifelong learning and personal development.

- The learning objectives that students most frequently identified as those they have gained *least* include liberal arts skills in the areas of artistic/creative expression and appreciation, numeracy, applying scientific methods to understand the natural and physical world, understanding people of other racial and ethnic backgrounds, and oral communication.
- Hence, oral communication emerged **both** as one of the top-ranked learning objectives that students felt they had gained most and also as one of the top-ranked learning objectives that students felt they had gained least from their education at Ohio University.
- Survey items related to community and civic engagement also were among the most frequently identified learning objectives that seniors felt they had gained least. Among all of the learning objectives listed in the surveys that were included in the interview protocol, voting in elections emerged most frequently as the learning objective students reported they had gained least from their college education.
- Analysis of the transcripts provided insights into students' reasons why they had gained mastery of some learning objectives more than others. The dominant explanation given by students for having gained certain learning objectives was simply that mastery of those objectives was emphasized in students' classes. Although this was the most frequent explanatory theme, the importance of mastering the learning objective for students' personal development emerged as the second most frequent theme in the transcripts. On the other hand, perceived deficits in their classes and in the university environment broadly were invoked most frequently as explanatory themes in students' selection of learning objectives they had gained least from their time at Ohio University.
- To what degree do students' views of the learning objectives they have gained most and least from their university education coincide with faculty members' evaluations of the relative importance of these objectives for students' educations? In particular, learning objectives that the faculty sample evaluated most frequently as important for students to gain included analytic thinking, writing skills, job or work-related knowledge or skills, and the ability to learn effectively on one's own. These learning objectives also emerged as top-ranked learning objectives that seniors felt they had gained most from the university. Similarly, learning objectives related to artistic/creative expression, the ability to apply scientific methods to understand the natural and physical world, the ability to participate in community service activities, and voting in local, state, or national elections emerged as lower-ranked learning objectives in both the faculty and senior samples. (There are also a few areas divergence between the faculty and senior samples. For example, acquiring a broad general education and the ability to apply major field knowledge to new problems were among the top-ranked learning objectives in the faculty sample but not in the senior sample.)

- The learning objectives presently listed for the university's general education program are rather voluminous, and were intended as a work in progress. As next steps, we believe it would be helpful to disseminate findings from this assessment project and provide avenues for university-wide conversations concerning possible core learning objectives for Ohio University. The apparent general pattern of congruence between responses provided by the faculty and senior samples included in this study could provide a helpful jumping-off point for such conversations. To what degree might these areas of congruence suggest "core learning objectives" for Ohio University? To what degree do these – or other -- learning objectives align with the university's mission and values? Such questions lie at the heart of identifying and documenting the importance and value of an Ohio University education.
- How do undergraduates at Ohio University understand the purpose of general education? What does general education mean to students? What expectations about general education do Ohio University students have? Are there differences between freshmen and seniors? The purpose of a college degree and general education were seen as similar: Seniors and freshmen agreed that a degree helps to get a better job, makes a person a well-rounded individual, and broadens understanding (beyond a single major course of study) and ability to problem solve and communicate more effectively with diverse groups. Seniors also mentioned a degree demonstrates work ethic and preparation for membership in society. Freshmen reported that a degree provides a broad skill base to use in a career and in life in general. They also indicated a degree prepares a person for a career that is interesting and is not just about earning more money.
- Students view general education as an important part of their education that will help them as they transition into their career after graduation. Students understand the purpose of general education as something that gives them a well-rounded broad based knowledge with specific skills in the areas of writing, oral communication, technology and mathematics. Both seniors and freshmen described general education courses as a core knowledge base that employers and other expect graduates to have and both classes thought general education courses were helpful in deciding on a major.
- General education can help students become successful because the courses help to develop the skills identified with success. For seniors and freshmen success relates to being a good communicator and working well with others, being motivated and working hard. Seniors and freshmen expected to gain exposure to different subjects and knowledge outside their major and become better communicators through completion of general education courses.
- While there are many similarities between first years and seniors, seniors are more focused on their major and their future careers whereas first year students are more focused on finding their major and figuring out what it is they need to do well to be

successful in college. Freshmen also seek careers that are interesting while seniors focus more on good pay.

- As demonstrated by the quantitative analysis on Survey of Alumni results, students in different academic programs clearly have different outcomes. College of Business majors differ significantly from other colleges in that there is a focus on teamwork within their field of study. Likewise, College of Engineering majors focus significantly more on the development of analytical skills, while College of Fine Arts students seem to develop significantly different on outcomes related to creative and artistic expression and ideas. Health and Human Services majors tended to focus on the development of community service and communication skills. Arts & Sciences students on the other hand, seem to have a propensity to developing their ability to place current problems in historical, cultural, and philosophical perspective. College of Communication students not surprisingly tended to focus on the development of both oral and written communication skills, while College of Education students seemed more focused on the development of being sensitive to the feelings of others. These differences indicate that students in different fields of study will, by the nature of that field of study, graduate with slightly different focuses on the general education learning outcomes. This analysis does not prove that some students are not receiving the skills, knowledge or learning outcomes, but rather that due to the nature of their chosen field of study, the focus may be more prominent on certain outcomes than it is on others.
- Students expressed a desire for a greater variety of general education courses. Students also indicated that they wished they could have taken a different mix of courses or at different quarters. This theme was related to the choice of major. Students discussed changing their major as a result of choosing their first major prematurely with general education giving them opportunities to explore other majors. Choice of electives was related to these themes, with students expressing a desire to take different courses that were not required. The least intellectually compelling question provided material to supplement the change themes. Students expressed dissatisfaction with instructional methods that did not engage them in learning. Combining themes, students expressed frustration with courses that were poorly taught, not challenging, or presented with an apparent bias. Presumably these frustrations could be interpreted as changes they would make in the ways their courses were taught. A few students indicated that they would make no changes at all. Students wished they would have taken a greater variety of courses in and beyond general education, and they expressed a desire for greater engagement in the classes they did take.

This interim report of the General Education Assessment Working Group is a work in progress. More work needs to be done with the existing data. The ACT CAAP test data needs to be analyzed in relation to the richer body of student interview data in response to the USO Chancellor's recommendation to emphasize comparative testing of students. More student interview data needs to be collected. The collection of 59 senior interviews and 91 freshmen

represents the end of the pilot period. If Ohio University is to collect general education assessment data that is representative of the student experience, then many more interviews need to be conducted and analyzed. These assessments should be continued and supported by Ohio University so that it can meet its obligations for regional accreditation, the requirements of VSA and USO, and so that its faculty have reliable information upon which to make curricular decisions. Means for regular dissemination of these assessment data need to be devised through the University Curriculum Council and other groups.

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