

2010-2011 Annual Assessment Summary Report

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Executive Summary

The Institutional Effectiveness Office, with the technical and administrative assistance of the University's Test Center, coordinates several student learning outcomes assessments annually. The student outcomes testing program involves three (3) groups of students. [1] Students entering the traditional undergraduate program complete one of three (3) general education assessments during the new student transition activities. One-third are randomly assigned to complete the Test of Bible Knowledge, another third completes the Defining Issues Test (DIT-2), while the final third completes the Educational Testing Service (ETS) Proficiency Profile. [2] These pretests serve as baselines for determining the growth or change occurring between entry and their junior year, when they complete these same instruments again in a posttest setting.

[3] End-of-program assessments employ multiple evaluation methodologies. When nationally developed instruments do not exist for specific disciplines or if the department judges that the national instruments do not align well with the department's curriculum, departments have developed local instruments, which they and/or the Test Center administer during the spring semester of the senior year.

Other departments utilize nationally developed and normed instruments for assessing the students' mastery of disciplinary content and/or skills. Some employ one of the Area Concentration Achievement Tests (ACAT) series from PACAT, Inc. of Clarksville, Tennessee (<http://www.collegeoutcomes.com>). Others rely on the Major Field Test (MFT) series from Educational Testing Service (ETS, <http://www.ets.org>). As a general rule, I recommend that department performance target or benchmark the 50th percentile or national average as the minimum measure of effective departmental performance.

As a general rule, Mount Vernon Nazarene University first-time freshmen enter competitive with their peer outside the University, and are competitive with their peers when they graduate at the end of four years. There is significant growth from the freshmen year to the junior year in general education, and MVNU juniors improve their rank during that period of time. During 2010-11, end-of-program evaluations of adult and graduate programs show the level of mastery is not as great, and collective performance in GPS programs merits review.

General Education Assessments

The University administers three (3) primary instruments to assess its general education outcomes. Over time, the Student Assessment and Learning Committee developed a structure for the assessment that provides information about change or growth in individuals over time through a pretest-posttest design. At new student transition activities, the entering class of new students (first-time freshmen and transfer students) are split randomly into three groups, each of which tests on one of the following instruments, to provide baseline information related to individuals and the entering cohort. At the end of the junior year, the students are then retested on the same instrument, and the results are analyzed to determine the growth of individuals and change in average scores. The University provides a very modest \$100 scholarship to the ten (10) students showing the most growth over time, as one means to provide incentive students to engage seriously in the assessment activities.

Individual scores and cohort averages are provided as feedback to the pretest and posttest groups.

Defining Issues Test (Entering Students)

The Defining Issues Test (version 2, DIT-2), developed and administered by the Center for the Study of Ethical Development at the University of Minnesota, presents information on the moral schemas students employ in moral decision-making. Three (3) general scores are reported along with more technical indices. [1] The personal interest schema score reflects the individual’s focus on direct advantage to the actor, simple exchanges of favor for favor, the good or evil intentions of the parties, maintaining friendships and good relationships, and maintaining the approval of others. [2] The maintaining norms schema score is directed toward maintaining the existing legal system, maintaining existing roles and formal organizational structure. [3] The postconventional schema score focuses on organizing society by consensus, insisting on due process, safeguarding basic human rights, and appealing to ethical ideals. N2 is a calculated score that prioritizes postconventional schema and minimizes the weight given to simplistic thinking.

In fall 2010, the DIT-2 was completed by 159 students entering the traditional undergraduate program; most were first-time freshmen with a small contingent of transfer students. The average scores are presented below with the national freshman averages.

Group	DIT-2 Scores			
	Personal Interest	Maintain Norms	Postconventional	N2
MVNU Freshman Average	25.3	41.3	26.5	26.0
National Freshman Average	28.5	33.6	32.2	31.1

As a group MVNU’s entering students are most likely to make their moral decisions by reference to maintaining group norms and less by either a sole concern for their own personal interests, or by employing more principled ethical schemas.

ETS Proficiency Profile (Entering Students)

One hundred forty-one (141) entering students completed the ETS Proficiency Profile in fall 2010. The following table presents the national average scores, MVNU’s entering student averages, and percentile equivalents.

	Total	Skills Subscores				Context-based Subscores		
		Critical Thinking	Reading	Writing	Mathematics	Humanities	Social Sciences	Natural Sciences
National Freshman Average	435.5	109.5	115.0	112.6	111.3	112.5	111.2	113.1
MVNU Freshman Average	437.3	109.7	114.8	113.3	112.6	112.5	111.0	112.8
National Freshman Percentile Equivalent	58 th	52 nd	46 th	49 th	59 th	49 th	50 th	44 th

Overall the MVNU entering students in fall 2010 were similar in ability to their peer in the Baccalaureate (Liberal Arts) Colleges I and II classification, which forms the University’s comparison group. They performed slightly above peers nationally on three (3) of seven (7) subscores.

Test of Bible Knowledge (Entering Students)

One hundred forty-eight (148) traditional students completed the Test of Bible Knowledge during the new student transition activities as a pretest. As juniors, the same students will complete the test as a posttest. The pretest and posttest scores give the University significant information on the degree of growth in Bible knowledge that students demonstrate during the MVNU experience.

The following table summarizes the 2010 entering class profile on the Test of Bible Knowledge.

	Average Score	Highest Score	Lowest Score	Total Possible
Old Testament	27.9	52	9	53
New Testament	23.6	45	9	47
Total	51.2	97	19	100

Items 1-53 are from the Old Testament and 54-100 cover New Testament information. The entering Bible knowledge of incoming students, their testing motivation, or both, vary significantly from student to student.

Defining Issues Test (Juniors)

During the spring 2011 testing period, 68 MVNU juniors completed the Defining Issues Test. The average scores and the national average scores for juniors are presented below.

Group	DIT-2 Scores			
	Personal Interest	Maintain Norms	Postconventional	N2
MVNU Junior Average	24.0	36.1	34.4	33.9
National Junior Average	27.4	32.9	34.5	32.7

MVNU juniors were less likely to base moral decisions on factors of personal interest or benefit than juniors nationally, but they were more likely to give consideration to legal, organizational, and social norms than their peers. On making principles decisions, whether as reflected in the postconventional or N2 scores, they were similar to the national peer group.

ETS Proficiency Profile (Juniors)

In spring 2011 89 juniors completed the ETS Proficiency Profile, 88 of which had previously completed the instrument as a pretest; most completed the pretest in fall 2008. The following table compares the pretest and posttest averages and shows significant improvement over time.

	Pretest Average	Posttest Average	Change
Total	438.3	449.0	+10.5

*The differences were statistically significant, using a paired-comparison t-test (p < .001).

Additional details on skills and context-based subscores are presented in the following table.

	Skills Subscores					Context-Based Subscores		
	Total	Critical Thinking	Reading	Writing	Mathematics	Humanities	Social Sciences	Natural Sciences
National Junior Average	442.3	111.7	117.6	113.9	112.4	114.6	113.5	115.0
MVNU Junior Average	449.0	113.0	119.1	116.3	114.4	117.0	113.1	116.7
National Junior Percentile Equivalent	66 th	59 th	54 th	63 rd	61 st	61 st	46 th	54 th

The MVNU juniors performed at or above the national average on the total score and all subscores, except in social sciences.

Test of Bible Knowledge (Juniors)

In spring 2011, 87 juniors completed the Test of Bible Knowledge (posttest), of which 86 completed the pretest upon entering; most entered in fall 2008. The distribution of scores and the average subscores and total scores are provided in the table below. Of those completing both the pretest and posttest, 73 (85%) improved the total scores, 1 (1%) remained at the same level, and 12 (14%) declined in performance.

	Average Score	Highest Score	Lowest Score	Total Possible
Old Testament	32.2	49	11	53
New Testament	27.1	45	11	47
Total	59.3	91	25	100

The testing protocol provides for pretest-posttest comparisons. For those students who completed both the pretest and posttest, the following table summarizes the average subscores, total scores, and change from the freshman to the junior year.

	Pretest Average	Posttest Average	Average Change
Old Testament	27.0	32.2	+5.2*
New Testament	23.0	27.1	+4.1*
Total	50.0	59.3	+9.4*

*The differences were statistically significant, using a paired-comparison t-test (p < .001).

The totality of the MVNU experience (e.g., academic, campus ministries, etc.) provides for some growth in Bible knowledge, especially considering that a significant portion of freshmen complete the Bible course during the freshman year, with as much as two years between the Bible course and the posttest (a forgetting curve).

Department Assessment using Locally Developed Instruments

Academic departments are encouraged to utilize nationally normed (standardized) instruments, whenever possible for determining the level of mastery of valued content and skills of seniors for a component in an end-of-program assessment. If the department’s curriculum follows that commonly

found in other colleges and universities, the national instruments provide a reference point and/or benchmark for how the department's students compare with those on the national scene. However, for some disciplines, national examinations are lacking. For other programs, the program goals, objectives, and curriculum are distinctively different from common practice. In these cases, academic departments at Mount Vernon Nazarene University have developed and employed locally developed instruments. A table follows that details the discipline, number of students participating in the assessment, and performance information.

Discipline or Department	Number of Students Completing the Examination	Possible Points	Average Points Earned
Broadcasting	3	100	67.3
Christian Education	8	188	118.6
Communication	1	100	59.0
Exercise Studies	9	120	75.7
Graphic Design	4	50	40.3
Intercultural Studies	3	127	82.7
Journalism	5	100	65.4
Philosophy	1	163	71.0
Public Relations	2	100	55.0
Religion	4	145	97.3
Sports Management	6	120	61.8
Urban Ministries	1	145	102.0

The number of students completing the examinations, the difficulty level of the items, and the lack of correlation between the locally developed test scores and external information render it difficult to interpret quality of programs. The best information available is the relative performance of individuals within the cohort and the trends across time, if there were not significant revisions of the examinations.

Department Assessment using Nationally Developed Instruments

ACAT in Art

Four (4) seniors pursuing the art major completed the ACAT examination in art. The average subscores, average total score, and the average total score percentile equivalent are presented in the following table. The ACAT scores are calculated as standard scores where 500 is the average over time and the standard deviation is 100. Two of four students scored above 500 on the overall score. As a group, then, MVNU art graduates in 2011 matched the national peer group.

	History of Art	General Design	Studio Art	Overall	Percentile
Cohort Average	457	548	481	503	51 st

ACAT in Biology

Across the years, the Biology Department has used several instruments to evaluate the degree to which biology seniors have mastered fundamental knowledge. Originally the department administered the ETS Major Field Test in biology to seniors, which was later replaced by a departmentally developed one. The later one did not provide comparison or context information with peer institutions. After a review of options, the department decided this year to try the ACAT test in biology, and selected from available subscales to compose the test with five (5) subdisciplines.

Sixteen (16) biology majors completed the test in spring 2011. The following table presents the cohort averages on subscores and total score, and the equivalent total score percentile.

	Ecology	Genetics	Invertebrate Zoology	Vertebrate Zoology	Vascular and Non-vascular Plants	Overall	Percentile
Cohort Average	508	508	486	645	485	488	46

For the most part, with the exception of the environmental science concentration within the biology major, biology students complete only one plant or botany course, typically in the spring of the freshman year, and one invertebrate zoology course, and that in the sophomore year. The ecology and genetics emphases occur within one primary course, but with built-in replications in several other courses. Biology majors study vertebrate anatomy and physiology in each of the freshmen, junior, and senior years in most concentrations, and the mastery of that curricular structure is evident in the vertebrate zoology performance.

ACAT in History

The History Department requires the history and integrated social studies education seniors to complete the ACAT examination in history. ACAT provides departmental options on the subdisciplines and related subscores, and the History Department selected the option of 10 subdisciplines. During 2010-2011 seven (7) majors completed the end-of-program assessment. The following table presents the cohort averages on subscores and total scores, and the equivalent total score percentile.

	U. S. 1820 to 1890	U. S. Colonial to 1763	U. S. 1890 to 1940	U. S. 1763 to 1820	U. S. 1940 to present	European Ancient	European Early Modern	French Revolution and Napoleon	European Medieval	European Modern to Present	Overall	Percentile
Cohort Average	439	456	429	451	459	451	514	533	449	440	443	36 th

In terms of overall performance, the cohort did best, scoring above the national average, in the two subdisciplines related to European history. In broad brushstrokes, the average MVNU senior performed better than 36 out of 100 seniors nationally.

ACAT in Social Work

The Social Work Department offers programs for two (2) types of social work students: traditional undergraduate and degree-completion students. Twelve (12) traditional seniors in social work completed the ACAT test in social work in 2010-2011. There were eleven (11) females and one (1) male in the cohort. The following table presents the subdisciplines, average subscores, the total score, and the equivalent percentile of that total score.

	Diversity	Populations at Risk	Social and Economic Justice	Values and Ethics	Policies and Services	Social Work Practice	Human Behavior in the Social Environment	Research Methods	Overall	Percentile
Cohort Average	451	464	463	503	450	439	477	509	457	33 rd

In terms of strength of subscales, the group performed at or above the 50th percentile in the areas of values and ethics, and research methods. Total score and all other subscore averages were below the national average.

The Social Work Department administered the ACAT social work test to its degree-completion seniors (27 students – 26 females and 1 male). The following table presents the performance of the degree-completion cohort.

	Diversity	Populations at Risk	Social and Economic Justice	Values and Ethics	Policies and Services	Social Work Practice	Human Behavior in the Social Environment	Research Methods	Overall	Percentile
Cohort Average	451	503	473	490	481	494	467	469	470	38 th

As transfer students, members of the degree-completion cohort brought different educational and curricular experience to the program. Their collective strength was in populations at risk, scoring at the national average in the subdiscipline.

ETS Major Field Test in Business (BBA degree-completion students)

The BBA (Business) Department administered the ETS Major Field Test in business to 184 graduates in 2010-2011. The department’s average total score was 146.9, while the national average is 153.1. The MVNU average corresponds to the 33rd percentile nationally.

The ETS Major Field Test in business provides departments with nine (9) assessment indicators, focusing on subfields within business. The table, presented below, provides key data on the assessment indicators and contextualizing information.

Assessment Indicator	Average Number of Correct Items	Percentile Equivalent
Accounting	43.3	10 th
Economics	47.2	40 th
Management	47.0	10 th
Quantitative Business Analysis	41.5	15 th
Finance	51.8	30 th
Marketing	48.8	25 th
Legal and Social Environment	46.8	50 th
Information Systems	58.7	45 th
International Issues	50.0	25 th

The curriculum strength seems to involve the subfields of economics, legal and social environments, and information systems.

ETS Major Field Test in Business (traditional undergraduate students)

Forty-two (42) graduates in the Business Department completed the Major Field Test in business in 2010-2011. The cohort’s average total score was 153.6 and corresponds to the 46th percentile, so that the cohort lagged slightly behind the average baccalaureate level business student nationally.

The following table provides the assessment indicators, the average number of items mastered by MVNU graduates, and the national percentile reference point.

Assessment Indicator	Average Number of Correct Items	Percentile Equivalent
Accounting	51	50 th
Economics	48	45 th
Management	55	45 th
Quantitative Business Analysis	45	35 th
Finance	58	60 th
Marketing	54	55 th
Legal and Social Environment	53	85 th
Information Systems	60	60 th
International Issues	55	50 th

As a group, the cohort of traditional undergraduate business students matched or exceeded the 50th percentile on six (6) of the nine (9) assessment indicators, demonstrating that when compared to other undergraduate business students, they are at or above the national average in those subdisciplines.

ETS Major Field Test in Chemistry

The Chemistry Department graduates an insufficient number of students annually for ETS to provide detailed program information. Therefore, the graduates from 2010 and 2011 were combined for this reporting period with a sample total of seven (7) students. The cohort's total average score was 140.7, corresponding to the 32nd percentile and where the national average total score is 147.9. The following table presents the subscore categories, the cohort average, and the associated percentile equivalent.

Subscore	MVNU Average	National Average	MVNU Percentile
Physical Chemistry	38.4	48.8	22 nd
Organic Chemistry	42.6	48.7	30 th
Inorganic Chemistry	45.4	47.9	40 th
Analytical Chemistry	38.3	47.8	22 nd

The Major Field Test in chemistry provides departments with two assessment indicators as additional perspectives on student and departmental performance. The following provides this assessment indicator information for the combined two-year cohort.

Assessment Indicator	Average Number of Correct Items	Percentile Equivalent
Biochemistry	47	40 th
Critical Thinking and Reasoning	35	20 th

ETS Major Field Test in Criminal Justice

Criminal justice graduates for 2010-2011 completed eleven (11) Major Field tests in criminal justice. Collectively the graduates performed very well when comparing their total and subscores with their peers on the national scene. The cohort's total score average of 168.5 was significantly above the national average of 153.6; the percentile equivalent of MVNU's average is 79. Only one total score was below the 50th percentile.

Like the majority of ETS Major Field Tests, the criminal justice examination presents assessment indicators to provide students and departments with additional feedback about the mastery of specific content areas with the larger criminal justice field. The following table summarizes the average number of correct items on each indicator, and the percentile equivalent for that number of correct items. The department and the individual students are to be commended upon their overall performance.

Assessment Indicator	Average Number of Correct Items	Percentile Equivalent
Theories of Criminal Behavior	58	90 th
The Law	72	95 th
Law Enforcement	70	95 th
Corrections	66	95 th
The Court System	73	95 th
Critical Thinking	72	95 th
Research Methodology	54	80 th

ETS Major Field Test in Literature in English

In the 2010-2011 academic year, fourteen (14) seniors majoring in English and integrated language arts completed the Major Field Test in literature in English. This year’s graduates performed very well in comparison to peers at other colleges and universities. The total score average was 159.4, which exceeded the national average of 154.7 and ranked at the 57th percentile.

The following table presents the subscore areas, the average of MVNU graduates for the year, the national average, and the percentile equivalent for the 2011 MVNU graduates.

Subscore	MVNU Average	National Average	MVNU Percentile
Literature 1900 and Earlier	60.4	54.6	58 th
Literature 1901 and Later	54.4	54.7	48 th
Literary Analysis	59.2	54.8	55 th
Literature History and Identification	57.2	54.4	51 st

The graduates performed above the national average on the total score and three subscores, including pre-20th century literature, literary analysis, and literature history. On 20th century literature, MVNU performed as well as their national peers.

Assessment indicators sometimes disaggregate questions in other ways and provide additional perspectives on the examinations and student knowledge. The assessment indicators for the Major Field Test in literature in English are summarized in the following table.

Assessment Indicator	Average Number of Correct Items	Percentile Equivalent
British Literature Pre-1660	56	70 th
British Literature 1660-1900	53	75 th
American Literature to 1900	64	60 th
British and American Literature 1901-1945	50	30 th
Literature in English since 1945	64	45 th
Literary History	52	75 th
Identification	47	40 th
Literary Theory	56	75 th

It appears as if the strength of the English Department’s curriculum as experienced by this cohort of graduates was stronger in pre-1900 literature, literary history, and literary theory. The cohort did less well on identification of literature, or on literature published after 1900.

ETS Major Field Test in MBA (Business)

During the 2010-2011 year, eleven (11) cohorts and a total of 111 graduate business students completed the MBA business test. The Graduate Business Department’s average total score was 242.2, while the national mean was 248.8; MVNU’s average total score aligns with the 35th percentile on the national norming sample.

The examination has five (5) assessment indicators. The following table summarizes the assessment indicators and provides a reference to national percentile equivalents.

Assessment Indicator	Average Number of Correct Items	Percentile Equivalent
Marketing	54.4	20 th
Management	57.5	25 th
Finance	38.1	10 th
Accounting	44.0	20 th
Strategic Integration	48.7	25 th

ETS Major Field Test in Psychology

Fourteen (14) psychology seniors completed the Major Field Test in psychology. Collectively, their averages were below the national average on total score, learning/cognition, perception/sensation/physiology, and developmental/social psychology subscores. The total score average of 155.6 represents approximately the 42nd percentile. The learning and cognition subscore average of 53.1 corresponds to the 40th percentile. In a similar trend, the perception, sensation, and physiology subscore of 53.1 aligns with the 33rd percentile. Their performance on the clinical, abnormal, and personality psychology subscore matched the 50th percentile; this was the cohort’s highest subscore. The subscore on developmental and social psychology was at the 45th percentile. As a general pattern, this cohort performed below those of program graduates from 2007 through 2010.

The assessment indicators with average number of correct items and the contextualizing information are provided in the following table.

Assessment Indicator	Average Number of Correct Items	Percentile Equivalent
Memory and Thinking	48	45 th
Sensory and Physiology	38	45 th
Developmental	41	20 th
Clinical and Abnormal	68	55 th
Social	70	80 th
Measurement and Methodology	52	40 th

ETS Major Field Test in Sociology

During 2010-2011, eleven (11) sociology majors completed the sociology end-of-program assessment. As a group the total score average of 152.3 exceeded the national average of 147.8, and this level of learning corresponds to the 56th percentile. The core sociology subscore average of 53.6 represents the 59th percentile nationally; while the critical thinking subscores' average of 50.3 also exceeded the national average at the 53rd percentile. These scores are consistent over the last three academic years (spring 2009 through spring 2011) and represent good quality learning in which six (6) of eleven (11) seniors scored above the 50th percentile.

In terms of assessment indicators, the following table summarizes the MVNU cohort number correct, the national average, and the corresponding percentile equivalents.

Assessment Indicator	Average Number of Correct Items	Percentile Equivalent
General Theory	49	55 th
Methodology and Statistics	62	80 th
Deviance and Social Problems	54	75 th
Demography and Urban/Rural Community	56	75 th
Multiculturalism	55	65 th
Social Institutions	60	65 th
Social Psychology	41	40 th
Gender	54	35 th
Globalization	46	25 th

The first six assessment indicators align well with the program's curriculum, and in these areas the graduates did well. Social psychology, gender issues, and globalizations are only tangential to the department's core curriculum and performance lagged in these areas.