Appendix 12.01

School of General Studies Action and Assessment Plan

June 2012

(pp. 1-15)

2011 to 2014

School of General Studies
Action & Assessment Plan

Dr. John Dobosiewicz,
Ms. Dawn Marie Dowd,
Mr. LaMont Rouse
Kean University

Original: February 2011
Revised: July 2011; November 2011
Revised: April 2012 (J.Dobosiewicz)
Latest Revision: June 2012 (J.Dobosiewicz)

Appendix 12.1: School of General Studies Action and Assessment Plan, June 2012 (pp. 1-15)

TABLE OF CONTENTS

MISSION STATEMENT

The mission of the School of General Studies is to develop students' knowledge, skills and values acquisition to enhance their academic success. The school will strategically implement and assess the General Education Program and its curriculum to support students in completing their degree requirements. The school collaborates with academic support programs in the Center for Academic Success and college-experience programs in Student Affairs, that address academic and non-academic issues affecting student retention and integration into the university community.

The General Education Program *will build knowledge* of diverse cultures and historical references through the arts, literature, humanities and social sciences. Furthermore, students will have command of the scientific method as an important mode of inquiry.

The General Education Program *will develop practical skills* including proficiency in communication in both oral and written forms. In addition, skill proficiency is expected in quantitative reasoning, critical thinking, reading comprehension and information literacy.

The General Education Program *will instill students with a distinct set of values.* These values include ethical & social responsibility, contributing as active members and leaders to the community through civic & social engagement, and showing respect for diverse communities and perspectives.

The School of General Studies *will provide support to first-year students*, through experiences that acculturate students to the academic, social and emotional demands of college and modeling behavior designed to ensure retention, successful degree completion, and graduation.

The School of General Studies is committed to creating a sustainable culture of assessment dedicated to advancing Kean University's mission of access and excellence. The School of General Studies will provide leadership for the planning and implementation of assessment, student-learning outcomes and faculty/staff-related training.

VISION STATEMENT

The vision for the School of General Studies is to become the signature of Kean University, branding Kean's unique knowledge, skills and values on each student. Appropriate in rigor and content, Kean will build a diverse community of learners consistent with the University's mission and the following student learning outcomes:

1. Think critically, creatively, and globally (KU1);
2. Adapt to changing social, economic and technological environments (KU2);
3. Serve as active and contributing members of their communities (KU3); and
4. Advance their knowledge in the traditional disciplines, general education and enhance their skills in professional areas (KU4).

The School of General Studies will lead a paradigm shift from the idea of teaching students to engaging students in active learning experiences.

VALUE STATEMENT

The School of General Studies is committed to offering a wide-range of liberal arts courses designed to enhance knowledge, skills and values of all Kean University undergraduate students.

Core Values:

- Focus on student learning;
- Commitment to Retention & Graduation;
- Promoting Active Learning
- Professional Development for Faculty and Staff and;
- Commitment to Assessment

GOALS

Goal 1: To provide leadership for the development and delivery of General Education curriculum.

Goal 2: To provide leadership that facilitates the assessment of General Education courses.

Goal 3: To ensure the delivery of General Education Student Learning Outcomes.

Goal 4: To provide support for first-year students that promotes retention and graduation.

Goal 5: To develop an online warehouse devoted to student achievement and learning.

Goal 6: To manage academic programs during teach-out periods.

Academic Year 2011through Academic Year 2014

Goals and Objectives

Goal 1: To provide leadership for the development and delivery of General Education curriculum.

Objective 1.1: To train faculty on best practices and promulgated standards in foundation & distribution courses.

Objective 1.2: To monitor and report student outcomes in foundation and distribution courses by semester.

Objective 1.3: To train faculty on best practices and promulgated standards in remedial courses.

Objective 1.4: To take leadership positions on standing University committees which impact the School of General Studies. (General Education, Assessment & Curriculum Committee).

Objective 1.5: To actively review all General Education foundation courses.

Goal 2: To provide leadership that facilitates the assessment of General Education courses.

Objective 2.1: To create a standing GE 1000 course: Transition to Kean (T2K) committee that will review course content, outcomes and related issues.

Objective 2.2: To create an ongoing schedule of assessment activities that measure GE student learning outcomes.

Objective 2.3: To gather feedback from students completing the T2K course.

Objective 2.4: To train GE coordinators with embedding core competencies into GE courses.

Objective 2.5: To provide high quality adjunct instruction with tutoring components.

Goal 3: To ensure the delivery of General Education's Student Learning Outcomes.

Objective 3.1: To train GE Foundation course coordinators on GE's standard written and oral rubrics.

Objective 3.2: To develop and assess the GE Knowledge, Skills and Values Matrix of student learning outcomes.

Objective 3.3: To embed GE student learning outcomes into courses as prescribed by the GE Knowledge, Skills and Values Matrix.

Goal 4: To provide support for first-year students that promotes retention and graduation.

Objective 4.1: To provide an innovative Transition to Kean (T2K) learning experience.

Objective 4.2: To support T2K instructors with the delivery of GE-1000

Objective 4.3: To intervene with students failing or withdrawing from the T2K program.

Objective 4.4: To collaborate with academic and non-academic programs to provide a holistic first year experience.

Objective 4.5: To train General Education Mentors to support the students in their first year.

Objective 4.6: To assist students with advisement and developing four year graduation maps.

Objective 4.7: To collaborate with the Office of Retention and Intervention and CAS to support first year experience retention.

Goal 5: To develop an online warehouse devoted to student achievement and learning.

Objective 5.1: To create an online learning hub of supplemental instruction for all GE Foundation courses.

Objective 5.2: To increase the number of course sections using Blackboard.

Objective 5.3: To train new faculty on Blackboard and integrating GE Foundation courses.

Objective 5.4: To provide an annual workshop for instructors that focuses on online, supplemental instruction.

Goal 6: To manage academic programs during teach-out periods.

Objective 6.1: To conduct appropriate program review.

Objective 6.2: To develop assessment of student learning outcomes.

Objective 6.3: To advise students and evaluate program requirements.

MEASUREMENT OF ASSESSMENT

Goal 1: To provide leadership for the development and delivery of General Education curriculum.		
Objective	**Measurement of Assessment**	**Timeline**
Objective 1.1: To train faculty on best practices and promulgated standards in foundation & distribution courses.	Develop a series of workshops on best practices for each GE foundation & distribution course. (No fewer than five workshops per academic year; attendance records & satisfaction surveys will be used to provide feedback and context)	Summer 2011 (Completed GE workshop, oral & written presentation workshops)
Objective 1.2: To monitor and report student outcomes in foundation and distribution courses by semester.	Provide student outcome data to the GE Committee, Assessment Committee, Academic Standards Committee and the Office of Accreditation & Assessment. (100% of foundation and distribution course outcomes will be reported in July and February with at least two (2) other semesters included in the report)	Fall 2011 (Assessment Report posted on Office of Accreditation & Assessment website)
Objective 1.3: To train faculty on best practices and promulgated standards in developmental courses.	Develop a workshop on best practices for developmental courses under the dominion of the School of General Studies. (At least one workshop will be conducted each fall)	Summer 2011 (Revision to Placement testing in Math & course revisions)
Objective 1.4: To take positions on standing University committees impacting the School of General Studies. (General Education, Assessment & Curriculum Committee)	Representative from the School of General Studies will serve on the GE committee in senior advisory roles and coordinate agenda items with the elected GE chair. Representatives of the SGS will also serve on the University Curriculum committee and other committees/groups (eg: Assessment, Writing Emphasis, Middle States Accreditation). Representatives will serve as chair or co-chair whenever possible under existing university senate procedures.	Fall 2011 – Accomplished and ongoing participation
Objective 1.5: To actively review all General Education foundation courses.	Review each GE course outline every four years and revise as needed. Create a schedule for course outline updates starting in January and collect course syllabus and appropriate assessments (eg: final exams) from a representative sample of courses.	Spring 2011 Revised to a two-three year cycle based on academic program review.

Goal 2: To provide leadership that facilitates the assessment of General Education courses.		
Objective	**Measurement of Assessment**	**Timeline**
Objective 2.1: To create a standing T2K committee that will review course content, outcomes and related issues.	Establish a T2K Committee which will meet no less than once a semester to review content, outcomes and related issues. An annual mini-report will be sufficient to demonstrate active engagement of this group.	Fall 2011 – Focus groups have meet. Standing Committee to be convened Fall 2012
Objective 2.2: To create an ongoing schedule of assessment activities that measure GE's core competencies.	With coordination with the Office of Assessment, GE will establish a calendar of assessment activities to measure core competencies.	Fall 2011 See revised two year cycle.
Objective 2.3: To gather feedback from students completing the T2K course. .	Conduct a survey of students in the T2K course to gather feedback on their experiences in the course and ways to improve it.	Pilot in Summer 2011; Distribute in Fall 2011 Accomplished & Ongoing
Objective 2.4: To train GE coordinators with embedding student learning outcomes into GE courses.	Promulgate learning units for all foundation courses and train faculty on how to implement and measure these learning units.	Pilot-Fall 2011; Implement Fall 2012 Pilot Accomplished (Use electronic student response clickers)
Objective 2.5: To provide high quality adjunct instruction with tutoring components	Provide ongoing training for all adjuncts and ensure that high failure rate courses included additional components for tutoring.	Fall 2011 (Peer-Led Team Learning underway)

Goal 3: To ensure the delivery of General Education Student Learning Outcomes.		
Objective	**Measurement of Assessment**	**Timeline**
Objective 3.1: To train GE Foundation course coordinators on GE's standard written, oral rubrics.	The following objective will be measured in two phases. During the spring 2011 semester each foundation course will develop a rubric (or rubrics) to facilitate measuring learning objectives and pedagogical delivery. The second phase will be training faculty how to apply the rubric to their course(s). Some modification of the primary rubric(s) as promulgated by SGS will be allowed although the primary criterion for measurement will remain intact.	Phase 1 – Spring 2011; Phase 2- Fall 2011 (Accomplished for capstone) Ongoing 2012-2014
Objective 3.2: To develop a GE Knowledge, Skills and Values Matrix of Student Learning Outcomes.	Develop a student learning outcome map in which competencies are linked to GE courses and a description of competency activities is logged.	Fall 2011 Accomplished
Objective 3.3: To assess the embedded GE student learning outcomes into courses as prescribed by the GE Knowledge, Skills and Values Matrix.	Identify embedded learning units and assessment for all GE foundation, distribution and capstone courses. Develop new learning units and assessment as needed based on faculty collaboration.	Fall 2012 – See attached GE course assessment timeline 2012-2014.

Goal 4: To provide support for first-year students that promotes retention and graduation.		
Objective	**Measurement of Assessment**	**Timeline**
Objective 4.1: To provide an innovative Transition to Kean (T2K) experience.	Create additional rubrics for Kean students to ensure that they understand the oral communications rubric	Fall 2011 Accomplished & ongoing
Objective 4.2: To support T2K instructors with the delivery of GE1000	Provide training for all new GE1000 instructors that must be completed in order to teach the course.	Ongoing Fall 2010-2012
Objective 4.3: To intervene with students withdrawing and failing the T2K course.	SGS staff will call and email all students to re-enroll in the subsequent semester. Create a profile of withdrawing and failing students.	Spring 2011 (T2K Report Card Developed)
Objective 4.4: To collaborate with academic and non-academic programs to provide holistic First Year Experience.	Coordinate activities and meet regularly with various departments including placement, retention, and residence life. (eg: Ad-hoc Placement Committee; Develop a first year "report" card with GEMs).	Fall 2011 (T2K Report Card implemented in Spring 2012) to be reassessed in Spring 2013
Objective 4.5: To train general education mentors to support students in their first year.	Establish a GEM Summer Training Institute (3 days) for new and continuing members. Establish ongoing meetings for all GEMS (at least 3 per semester) and a mid-year Institute (2 days) for continuing GEMs.	Summer 2011 – ongoing meetings accomplished –Summer to be revisited
Objective 4.6: To assist students with advisement and developing four year graduation maps.	Advise and assist with registering students taking GE courses. *GE will set benchmarks for the number of students served and track students using this service.*	Fall 2011 (undecided students assigned to SGS)
Objective 4.7: To collaborate with the Office of Retention and CAS to support first-year experience retention.	Provide peer support for First Year students in various retention efforts including registration, phonathon, etc.	Fall 2011 Accomplished & ongoing

Goal 5: To develop an online warehouse devoted to student achievement and learning.		
Objective	**Measurement of Assessment**	**Timeline**
Objective 5.1: To create an online learning hub of supplemental instruction for all GE Foundation courses.	Create a Blackboard course with at least 10 learning resources for each foundation course. All instructors teaching these courses will be made aware of and given access to these Blackboard units. These Blackboard courses will be updated every year.	Spring 2012 Accomplished and ongoing improvements to Blackboard
Objective 5.2: To increase the number of course sections using Blackboard.	Track the number of course sections using Blackboard to complete and submit at least one assignment in the fall of 2011. Afterward, the following benchmarks will be applied for every Foundation course (FY 2012 – 25%; FY 2013-35%; FY 2014-50%; FY 2015-65%).	Fall 2011 – Accomplished and 2012 target exceeded by ~10%
Objective 5.3: To train new faculty on Blackboard in order to integrate the technology with GE Foundation courses.	Develop a workshop on best practices in integrating Blackboard and offer it to all new instructors. (At least one workshop will be conducted each semester)	Fall 2011 Accomplished & ongoing
Objective 5.4: To provide an annual workshop for instructors that focuses on online, supplemental instruction.	Offer and evaluate two workshops per semester on online and supplemental instruction.	Fall 2011 Blackboard accomplished, including one vs. one. Partnership with Pearson Learning for GE MATH courses.

Goal 6: To manage academic programs during teach-out periods.		
Objective	**Measurement of Assessment**	**Timeline**
Objective 6.1: To conduct appropriate program review.	Meet with faculty to evaluate courses, update catalog following university established curriculum procedures.	Ongoing PHIL / REL courses 2013
Objective 6.2: To develop assessment of student learning outcomes.	Implement rubrics for knowledge, skills and values in appropriate courses.	Spring 2012-ongoing
Objective 6.3: To advise students and evaluate program requirements.	Create a file including degree audits of all students in teach out programs. Follow university established procedures for student advisement.	Ongoing

CONCLUSION

The following action plans details the mission, goals and objectives for the University with the belief that General Education represents the brand of Kean. Stated simply, we want to aspire that all students that graduate from Kean can demonstrate mastery in the knowledge, skills and values that we have identified and to be able to contribute to society with value and responsibility. This plan will gather direct evidence of student success as well as point to areas that need improvement in concurrence with academic undergraduate program review. We believe that the mission of the School of General Studies is central to Kean's mission of access and excellence and this plan gathers evidence to support the achievement of the University's objectives. After a full review of the assessment data, the School of General Studies will undertake a full revision of the General Education Program following University Senate guidelines.

Finally, this is a living document and subject to change. As modifications are made, this report will be updated and redistributed to the General Education Committee, University Curriculum Committee, University Senate, Vice President of Academic Affairs and other major constituent academic and non-academic groups.

General Education Student Learning Outcomes

(aligned with Kean University Student Learning Outcomes)

Student Learning Outcomes – Knowledge

Students will demonstrate proficiency in knowledge and content by:

1) applying the scientific method to understand natural concepts and processes (GEK1) (KU1,2,4)
2) evaluating major theories and concepts in social sciences (GEK2) (KU1,2,4)
3) relating literature to historical context (GEK3) (KU 1,2,4)
4) evaluating major theories and concepts in the fine arts (GEK4) (KU1,2,4)

Student Learning Outcomes – Skills

Students will demonstrate the skills and technology necessary to:

1) write to communicate and clarify learning (GES1) (KU1,4)
2) communicate effectively through speech (GES2) (KU1,4)
3) solve problems using quantitative reasoning (GES3) (KU1,4)
4) think critically about concepts in multiple disciplines (GES4) (KU1,2,4)
5) demonstrate information literacy (GES5) (KU1,2,4)

Student Learning Outcomes – Values

Students will exhibit a set of values that demonstrates:

1) personal responsibility (GEV1) (KU2,3)
2) ethical and social responsibility (GEV2) (KU2,3)
3) social and civic engagement (GEV3) (KU2,3)
4) respect for diverse cultures and perspectives (GEV4) (KU1,2,3)
5) life-long learning (GEV5) (KU1,2,3,4)

Fall 2011 - Spring 2012 Assessment Cycle

Knowledge Student Learning Outcomes						
		Knowledge 1: Scientific Method	Knowledge 2: Major Theories in Social Sciences	Knowledge 3: Historical References in Literature	Knowledge 4: Major Theories/Concepts in the Arts	Knowledge 5: N/A
GE Foundation Courses						
GE 1000 Transition to Kean						
ENG 1030 English Composition						
MATH 1000 Level by Program(or STME 1403 for NJCSTME)						
COMM 1402 Speech Communication						
GE 202X Research and Technology		X				
Required GE Distribution Courses						
ENG 2403 World Literature				X	X	
HIST 1000 History of Civil Society			X			
HIST 1062 Worlds of History			X			
Selected GE Distribution Courses (Spring 2011)						
GEHU Humanities						
AH 1700 Art History					X	
THE 1100 Acting I					X	
GESS Social Sciences						
PSY 1000 General Psychology		X	X			
SOC 1000 Intro to Sociology			X			
GESM Science & Mathematics						
BIO 1000 Principles of Biology		X				
CPS 1032 Microcomputer Apps.						
GEHPE Health & Physical Education						
ID 1225 Critical Issues/Health						

Skills Student Learning Outcomes						
		Skill 1: Written Communication Skills	Skill 2: Oral Communication Skills	Skill 3: Quantitative Reasoning	Skill 4: Critical Thinking	Skill 5: Information Literacy
GE Foundation Courses						
GE 1000 Transition to Kean		X	X	X	X	X
ENG 1030 English Composition		X	X			
MATH 1000-level by Program(or STME 1403 for NJCSTME)				X		
COMM 1402 Speech Communication			X			
GE 202X Research and Technology		X		X	X	
Required GE Distribution Courses						
ENG 2403 World Literature		X	X		X	X
HIST 1000 History of Civil Society OR HIST 1062		X			X	X
HIST 1062 Worlds of History		X			X	
Selected GE Distribution Courses (Spring 2012)						
GEHU Humanities						
AH 1700 Art History						
THE 1100 Acting I			X			
GESS Social Sciences						
PSY 1000 General Psychology		X			X	
SOC 1000 Intro to Sociology						
GESM Science & Mathematics						
BIO 1000 Principles of Biology				X		X
CPS 1032 Microcomputer Apps.				X		X
GEHPE Health & Physical Education						
ID 1225 Critical Issues/Health		X		X		

Values Student Learning Outcomes

		Value 1: Personal Responsibility	Value 2: Social Responsibility	Value 3: Active in Social and Civic Engagement	Value 4: Respect for Diverse Cultures	Value 5: Life Long Learning
GE Foundation Courses						
GE 1000 Transition to Kean		**X**		**X**	**X**	**X**
ENG 1030 English Composition					**X**	
MATH 1000 College Algebra						**X**
COMM 1402 Speech Communication			**X**	**X**	**X**	**X**
GE 202X Research and Technology			**X**	**X**		
GE Required Distribution Courses						
ENG 2403 World Literature			**X**	**X**	**X**	**X**
HIST 1000 History of Civil Society					**X**	**X**
HIST 1062 Worlds of History					**X**	
Selected GE Distribution Courses						
GEHU Humanities						
AH 1700 Art History				**X**	**X**	
THE 1100 Acting I						
GESS Social Sciences						
PSY 1000 General Psychology		**X**				
SOC 1000 Intro to Sociology					**X**	
GESM Science & Mathematics						
ID 1225 Critical Issues/Health		**X**	**X**			

Appendix 12.02

GE SLO Assessment Reports

2012-2013 and Fall 2013

Appendix 12.2: GE SLOs Assessment Reports 2012-2013 and Fall 2013

TABLE OF CONTENTS

Please click on the links below to view specific GE Assessment Reports:

GE SLO K1-Introductory

Bio1000

Semester: FALL 2013

REPORT DATE: 1/8/2014

Background

In July 2012, the Director of General Studies approached the Biology Program to develop and oversee an assessment activity for measuring GE K1: Applying the scientific method to comprehend natural concepts and processes. The targeted course, BIO 1000 Principles of Biology, is a four credit science course for non-biology majors and is designated as a General Education Distribution Course. A sample worksheet of questions on the scientific method and quantitative reasoning was initially shared with the expectation that it would be modified by Biology faculty to meet this demand. A graduate assistant was then hired to work with the faculty and administer the assessment survey to 23 course sections of 20 students per section.

Bio1000 Assessment: Technical Review

In fall 2013, application of the scientific method in Bio 1000 is assessed based on student test scores on a departmental General Biology Assessment Exam: Assessment Activity (see below) using the Scientific Method Rubric which had been created as a group work of the Kean University Department of Biological Sciences and the Office of Accreditation and Assessment (see below: this was a follow-up to the original discussion of assessment in 2012). The first part of the assessment exam requires students to match a number of sentences that describe one of the 6 essential steps of scientific methods. Additionally, in the second part students were asked to organize, analyze and interpret data and graphs.

Number of students: 479
Number of sections: 22

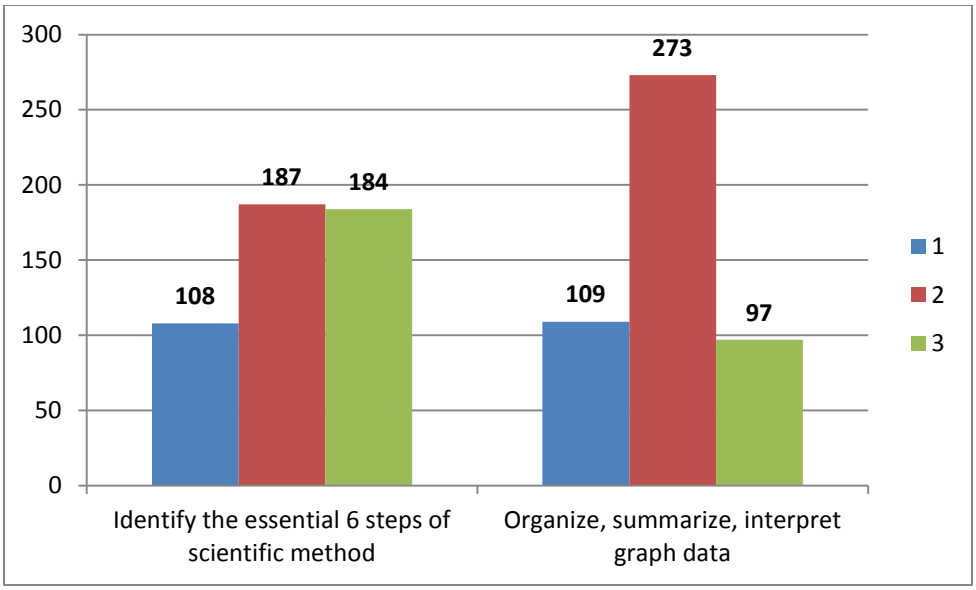
Distribution of Scores

Mean scores overall:

Identify the essential 6 steps of scientific method	2.2
Organize, summarize, interpret graph data	2.0

Distribution of Scores:

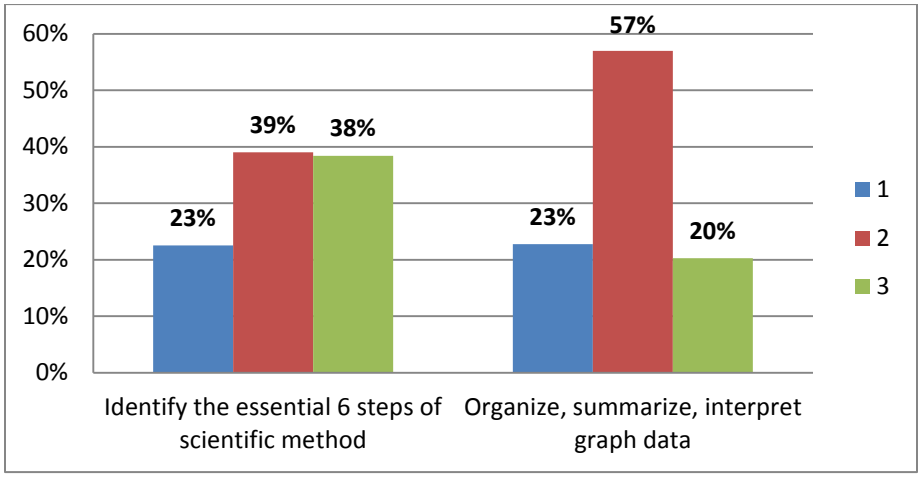
	Identify the essential 6 steps of scientific method	**Organize, summarize, interpret graph data**
1 below expectations	108	109
2 meets expectations	187	273
3 exceeds expectations	184	97



Distribution of Percentage

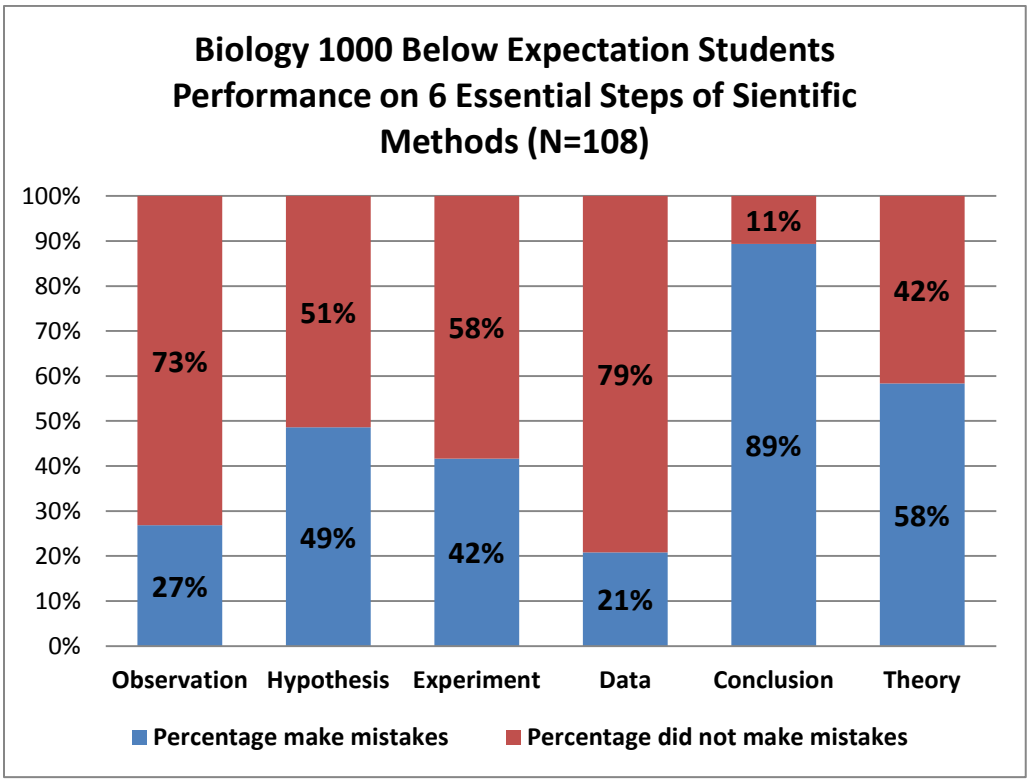
	Identify the essential 6 steps of scientific method	**Organize, summarize, interpret graph data**
1 below expectations	23%	23%
2 meets expectations	39%	57%
3 exceeds expectations	38%	20%

Distribution of Percentage



Students Below Expectation on 6 Essential Steps of Scientific Methods						
	Observation	**Hypothesis**	**Experiment**	**Data**	**Conclusion**	**Theory**
Test Question (Q)	Q2+5	Q3+9	Q6	Q1+8	Q4+10	Q7
Percentage making mistakes	27%	49%	42%	21%	89%	58%
Percentage did not make mistakes	73%	51%	58%	79%	11%	42%

N=108 below expectations students



Discussion/Action/Closing the Loop:

The Department of Biological Science used the Scientific Method Rubric to measure students' performance in the test "Assessment Activity." All non-biology major students (N=479) from 22 Bio1000 sections took the test.

Based on the scoring rubric, students were divided into three groups as 3 (exceeds expectations), 2 (meets expectations) or 1 (below expectations) for two class student learning outcomes (CSLOs).

Assessment Activity Test Questions 1-10 were used to measure the first CSLO: Identify the essential 6 steps of scientific method. 77% of the 479 students met the expectations or exceed the expectations.

Assessment Activity Test Questions 11-14 were selected to measure the second CSLO: Organize, summarize, and interpret graph data. Each question was assigned with different points to reflect its difficulty levels. 77% of students met or exceeded the expectations.

The overall student performance for both CSLOs exceeded the class goal (70% to meet or exceed expectations). However 23% of the students failed to meet expectations in each CSLOs. It should also be noted that significantly more students exceed the expectations for CSLO1 (38%) than CSLO2 (20%).

Research on improving graphical literacy and the ability to understand and apply the scientific method suggests making graph reading metacognitive so that students learn to interpret the graph's visual features and evaluate the data it provides rather than merely retrieving facts (Shah and Hoeffner, 2002). In addition, integrating collaborative questions into laboratory activities can help students build on their conceptual understanding of the scientific method by integrating it into actual laboratory experiences (Quitadamo and Kurtz, 2007).

So as 23% of the students scored below expectations on questions that measure students' ability to create and interpret the graph, the Department is revising the Bio 1000 lab manual, and has scheduled the new version for pilot-testing during the Spring 2013 semester with full implementation by the Fall 2014 semester. The manual already includes multiple graphing activities and exercises using the scientific method. The revision will include questions asking students to explain the graphs they create.

Q1-10 in the Assessment Activity test are all real-world related questions asking students to identify essential 6 steps of scientific methods in the real world: Observation, Hypothesis, Experiment, Data, Conclusion and Theory. 108 (23%) students failed to meet expectations (only correctly answered 6 or less questions out of 10). Out of the six steps, students who failed to meet expectations are most likely to make mistakes on Conclusion (89%), followed by Theory (58%), Hypothesis (49%), and Experiment (42%). Students made fewer mistakes on Observation (27%) and Data (21%). This is unsurprising when one considers Bloom's Taxonomy.

In order to improve the overall performance, it is important to address the issues of those 23% of the students who failed to meet expectations for these questions. To this end, Biological Sciences will now introduce collaborative questions, with special attention to **Conclusion, Theory, Hypothesis and Experiment**. These questions will be added to ask students to apply the scientific method as they evaluate and interpret their own work and findings from relevant, real-world and published research appropriate to a non-majors biology class.

Different yet similar test items will be created to be used on the course sections in the coming semester. The results will be compared with the current set to find how accurately the test items measure the skills they are intended to test.

Finally, faculty will be asked to stimulate class discussion about data interpretation and the scientific method by sharing real-world examples of research throughout the course. Teachers will observe and evaluate the process to find the reasons behind students' weakness.

References

Quitadamo, I, Kurtz, M. 2007. Learning to improve: using writing to increase critical thinking performance in general education biology. *CBE Life Science Education* 6(2): 140-154.

Shah, P, Hoeffner, J. 2002. Review of graph comprehension research: implications for instruction. *Educational Psychology Review* 14(1): 47-69.

GE K1 Rubric

Applying the scientific methods to understand natural concepts and processes

GE K1 Rubric_ Scientific Method Rubric			
	Exceed Expectations (3)	**Meet Expectations (2)**	**Below Expectations (1)**
Identify the essential 6 steps of scientific methods (Observation, Hypothesis, Experiment, data, Conclusion and Theory)	Identify almost all 6 steps of scientific methods for given scenarios.	Identify most of the 6 steps of scientific method.	Identify few of the 6 steps scientific method correctly.
Organize, summarize and interpret graphic data	Accurately organize, summarize and interpret almost all of the graphic data with detailed steps and explanations.	Organize, summarize and interpret most of the graphic data correctly, but may lack of detailed steps or misinterpreted a few questions.	attempted to organize, summarize and interpret the graphic data but failed to do it accurately for most of the questions.

GE K1 Rubric_ Scientific Method Scoring Criteria			
	Exceed Expectations (3)	**Meet Expectations (2)**	**Below Expectations (1)**
Identify the essential 6 steps of scientific methods (Observation, Hypothesis, Experiment, data, Conclusion and Theory)	9-10 points	7-8 points	1-6 points
Organize, summarize and interpret graphic data	26-30 points (Students has to answer almost all Q11 correctly)	18-25 points (students have to answer at least part of the Q11 correctly)	1-17 points

Identify the essential 6 steps of scientific methods: Assessment Activity Test Question 1-10, 1 point each

Organize, summarize and interpret graphic data: Assessment Activity Test Question 11-14 (Question 11: 15 points, Q12: 5 points, Q13: 4 points, Q14: 6 points)

Appendix Assessment Activity Test

NAME:_____ BIO 1000, Section _____

GENERAL EDUCATION ASSESSMENT FOR BIO 1000

For each example given below, determine which part of the scientific method each represents. (5 points each) Use the key to fill in the appropriate bubble.

KEY: a - Observation b - Hypothesis c - Experiment d - Data e - Conclusion f - Theory

(a) (b) (c) (d) (e) (f) 1. Daily temperatures (°C) of a terrarium for April: 23.9, 24.5, 24.0, 24.0, 23.8, 24.1, 23.7, 23.9, 24.3, 24.1, 24.0, 24.2, 24.1, 23.7, 24.0, 23.9, 23.6, 23.9, 24.1, 24.1, 23.8, 24.2, 24.4, 24.0, 24.7, 24.2, 24.0, 24.0, 23.9, 24.3

(a) (b) (c) (d) (e) (f) 2. One day, John noticed that large numbers of spider crab shells were suddenly scattered along the beach. They had not been there last week.

(a) (b) (c) (d) (e) (f) 3. A scientist wonders if Fertilizer A will produce taller plants than Fertilizer B.

(a) (b) (c) (d) (e) (f) 4. The high experimental growth rates of an organism with Nutrient Solution D, compared to A, B, and C, indicate that these organisms thrive best in glucose solution. To provide optimal growth for these organisms, we will only use the glucose nutrient solution.

(a) (b) (c) (d) (e) (f) 5. The student in the lab noticed that a plate containing a bacterial culture was contaminated with a colony of mold. Curiously, there was no bacterial growth within 12mm of the mold.

(a) (b) (c) (d) (e) (f) 6. Dr. Norman placed 100 mice individually in cages. Each mouse was infected with the same disease. The next day, fifty of the mice were given a new medication while the other fifty received no medication. He examines the mice every 12 hours and categorize them as either alive or dead. At the end of one week, the doctor tests the surviving mice for the disease and labels them as sick or cured.

(a) (b) (c) (d) (e) (f) 7. For centuries, scientists have considered that diseases come from something and don't just happen on their own. Through the research of many people over a long time, as van Leeuwenhoek, Pasteur, and Koch, it has become accepted that microorganisms, like bacteria and fungi, are responsible for many diseases.

(a) (b) (c) (d) (e) (f) 8. The recorded daily rainfall for Union, NJ from 2000 to present.

(a) (b) (c) (d) (e) (f) 9. Since birds often eat insects, will the use of pesticides in an area affect the bird population?

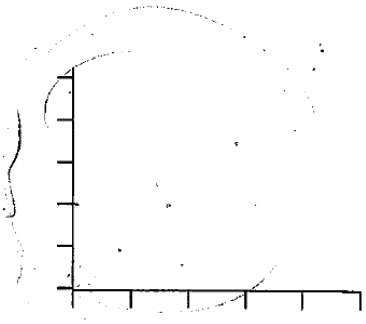
(a) (b) (c) (d) (e) (f) 10. Research of two organisms in an ecosystem, suggests that Animal A is a consumer of Plant B. Further study is recommended.

- - Continue to other side - -

Which is the highest level of math you have completed? ***Pick only one.***
❑ High School ❑ Developmental, ie MATH0901 ❑ College Algebra, ie MATH1000 ❑ Beyond Algebra

11. Use the data chart below for the number of trees at varying distances from a river to create an appropriate line graph, including all labels, on the right. (15 points total)

Distance (m)	Number of Trees
0	2
10	8
20	19
30	22
40	33
50	48

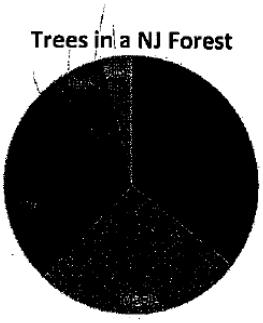


12. What is the relationship between the distance of the trees to the water and how many there are? (5 points)

_____

13. Which two (2) tree types make up nearly $^2/_3$ of all the trees? (4 points)

_____ and _____



14. If you were to randomly pick a tree in the forest, you would have less than a 10% chance of picking which three (3) types? (6 points each)

_____ _____

_____

Show how you figure these out. Write out your set up and calculations. An answer alone does not count. No calculators. (10 points each)

15. A fish tank with different types of tropical fish needs to be fed with two types of food. Each day it costs $0.75 for plankton and $1.25 for worms to feed this tank of fish. How many full days can you feed the fish with $40.00?

16. An experiment replicated four (4) times required water temperature to be measured. The first three (3) temperatures were 27°C, 25°C, and 26°C. The scientist forgot to record the fourth measured temperature , but fortunately calculated the average first. The average of the four (4) temperatures was 25°C. What was the temperature this person forgot to record?

GEK1: Apply the Scientific Method - Intermediate

Research and Technology, GE 202x, Fall 2013

Semester: FALL 2013

REPORT DATE: 2/4/2014

Knowledge of the Scientific Method is assessed in Research and Technology, GE202x, using a pre-test and a post-test that are course requirements. The tests include 9 multiple choice questions (which, when counting sub-questions, include 23 questions in total) pertaining to the scientific method. The pre- and post-tests were created by General Education leadership and the questions on the pre- and post-tests relate directly to the textbook. At present, there is no determined "breakpoint" for this assessment. All sections, 35, of GE202x Fall 2013 are represented in both the pre-test and the post-test. 557 students completed the pre-test, with 394 students completing the post-test.

Research and Technology, GE202x, introduces students to research design and methodology, as well as to disciplinary and interdisciplinary perspectives of the research process. Students learn how to design and implement a research project appropriate for their major disciplines and how to use technology for research and the communication of research results. Students also learn how to critically evaluate the validity, reliability, and limitations of research results. They produce a 15-page written research report and a 5-7 minute oral presentation about their research projects at the conclusion of the semester. Although the course includes students in their freshman, junior, and senior years, students usually take GE202x in their second year, and most students who take the course are enrolled as sophomores.

GE202x is considered an intermediate level course because, as a 2000-level, General Education course, it develops foundational concepts and skills introduced in two prerequisite courses—both at the 1000 level (Communication 1402 and English 1030).

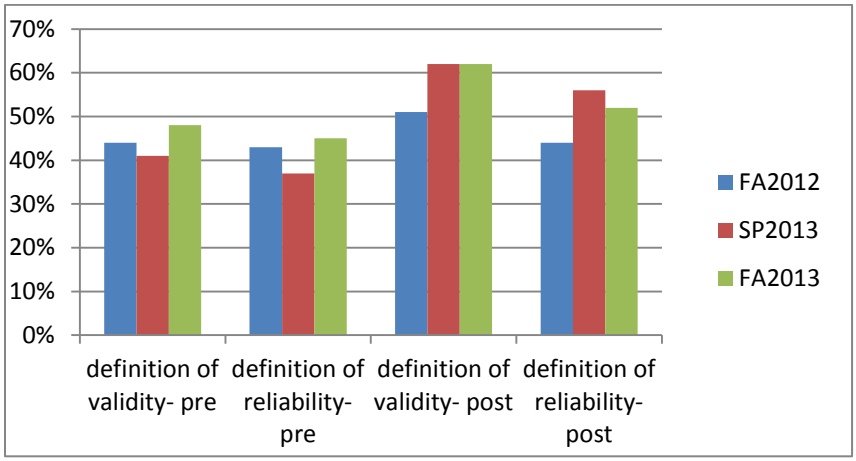
Number of students (Fall 2013): Pre-test: 557; Post-test: 394

Number of sections (Fall 2013): Pre-test: 35; Post-test: 35

Table 1: Longitudinal data regarding key terms "validity" and "reliability"

Semester	definition of validity- pre	definition of reliability- pre	definition of validity- post	definition of reliability- post
FA2012	44%	43%	51%	44%
SP2013	41%	37%	62%	56%
FA2013	48%	45%	62%	52%

Chart 1: Longitudinal data regarding key terms "validity" and "reliability"



Discussion:

Overall, based upon the results of the pre-test and the post-test (see table 2 below), there was an improvement in student understanding of the scientific method from the outset of the Fall 2013 semester to the end of the Fall 2013 semester. Results showed that, in spite of broadly positive results, students continue to struggle with an understanding of the terms "validity" and "reliability." Specifically, 37% of students incorrectly selected "validity" when answering a question about the definition of "reliability" and 29% of students incorrectly selected "reliability" when answering a question about the definition of "validity."

More generally, longitudinal data from pre- and post-tests given in the Fall 2012 and Spring 2013 semesters are consistent with the pre- and post-test results from Fall 2013 in that pre-test scores are lower than the post-test scores regarding questions on "validity" and "reliability." Notably, the higher percentage of correct answers regarding questions on these key terms "validity" and "reliability" in the post-test has improved fairly consistently since Spring 2013. (See table 1.) This may be due to the fact that General Education faculty met in the beginning of the Spring 2013 term and were made aware of the Fall 2012 results showing students' confusion over the terms "validity" and "reliability"; however, there were no standardized, course-wide curricular changes implemented at that point. Given that, as noted above, some students continue to struggle with understanding the difference between these terms, the next action steps should focus on developing clear strategies for improving student understanding of these terms.

Actions:

(1) Revise curriculum to include new strategies for helping students clarify the relevance of the terms "validity" and "reliability" (e.g. in-class assignment asking students to distinguish between "validity" and "reliability" to be followed by in-class discussion for immediate feedback.) This will include GE202x faculty meeting to formalize lessons that will improve student understanding of these terms.

(2) As GE202x is an intermediate level course, the question of whether or not an additional pre-requisite is needed for this course will be considered. Specifically, it is a question of adding a science requirement, such as BIO1000, to the list of pre-requisites.

(3) Changes will be made to the assessment process to track individual student responses to determine individual knowledge levels starting in Spring 2014.

Table 2: FALL 2013 Pre- and Post-Test Results

	557 #students 35 #sections		394 #students 35 #sections	
	Pre-Test		Post-Test	
Question	**% correct**	**Most common incorrect answer**	**% correct**	**Most common incorrect answer**
Definition of research	92%	N/A	96%	N/A
Definition of validity	48%	36% responded with reliability	62%	29% responded with reliability
Reliability in a research instrument	45%	37% responded with definition of validity	52%	37% responded with definition of validity
Definition of scientific method	61%	N/A	68%	N/A
Understanding of scientific method	70%	N/A	79%	N/A
Application of terms Q1	93%		95%	
Application of terms Q2	85%		86%	
Application of terms Q3	74%		78%	
Application of terms Q4	78%		84%	
Application of terms Q5	76%		84%	
Quantitative vs Qualitative Q1	68%		69%	
Quantitative vs Qualitative Q2	79%		74%	
Quantitative vs Qualitative Q4	67%		69%	
Quantitative vs Qualitative Q5	48%		53%	
Quantitative vs Qualitative Q6	54%		55%	
Quantitative vs Qualitative Q7	74%		77%	
Quantitative vs Qualitative Q8	68%		69%	
Quantitative vs Qualitative Q9	34%		41%	
Quantitative vs Qualitative Q10	63%		60%	
Quantitative vs Qualitative Q11	68%		73%	
Quantitative vs Qualitative Q12	78%		78%	
Definition of IRB	36%	N/A	51%	N/A
Variables	76%	N/A	82%	N/A

N/A: other answers had similar scores

Pre- and Post-test Questions Assessing K1 in GE202x:

1. _____ is the systematic process of collecting, analyzing, and interpreting information (data) in order to increase our understanding of a phenomenon.
    a. A problem statement
    b. A hypothesis
    c. Research
    d. A theory

2. _____ is the extent to which an instrument measures what it is supposed to measure
    a. Reliability
    b. Rejectability
    c. Transparency
    d. Scientism
    e. Validity

3. A test is said to be reliable if it:
    a. Measures what it is supposed to measure
    b. When researchers agree with the answers
    c. Consistency when measuring results when the entity hasn't changed
    d. If the council of science votes to approve it into the laws of science

4. The _____ method is a systematic, cyclical approach to "search for knowledge."
    a. Cluster Sampling
    b. Guestimation
    c. Scientific
    d. Information gathering
    e. All of the above
    f. None of the above

5. Which of the following is NOT an essential part of the scientific method?
    a. Make conclusions
    b. Identify a problem
    c. Gather data
    d. Creating new theories
    e. Form a hypothesis

6. Read the following and identify the appropriate response to the questions below.
    a. You are watching a student carrying their textbook under their arm while they are texting on their smart phone
        i. What is an observation?
        ii. What is the theory?
        iii. What is the hypothesis?
    b. The textbook begins to slip
        i. What is an observation?
        ii. What is the theory?

iii. What is the hypothesis?

c. You think that the textbook is going to drop
    i. What is an observation?
    ii. What is the theory?
    iii. What is the hypothesis?
d. The textbook falls to the ground
    i. What is an observation?
    ii. What is the theory?
    iii. What is the hypothesis?
e. You explain to someone that textbooks fall to the ground because of the Law of Gravitation
    i. What is an observation?
    ii. What is the theory?
    iii. What is the hypothesis?

7. Identify as either Qualitative (A) or Quantitative Research (B)
    a. Measures amounts of one or more variable of interest
    b. Aims to describe complexities and nuances of a particular phenomenon
    c. n/a
    d. Build theories
    e. Focuses with known variables
    f. Holistic with unknown variables
    g. Numeric data
    h. Textual and/or image-based data
    i. Deductive Reasoning
    j. Inductive Reasoning
    k. Statistical Analysis
    l. Statistical Analysis
    m. Narratives

8. Before beginning a research study, you usually obtain approval from the _____
    a. Council of Scientific Review
    b. Institutional Review Board
    c. Principals of Scientific Review
    d. Federal Oversight of Science Board

9. A _____ variable is potentially influenced by something else
    a. Independent Variable
    b. Dependent Variable
    c. Binomial Variable
    d. Waft-Index Variable

Results of 2013 History Department Assessment for HIST 1000/1062 (GE SLOs K2 and K3 Introductory), and HIST 4990 (GE SLOs K2 and K3 Advanced)

Preliminary Report

Introduction:

Two rubrics were created by the history department to measure student initial facility and eventual mastery of evaluating major theories and concepts in the Social Sciences and relating historical literature to historical concepts.

Part One (K2):

GEK2 – HIST 1000/HIST 1062 - evaluating major theories and concepts in social sciences

GEK2 – HIST 4990 - relating historical literature to historical concepts.

How was the Rubric created?

The Rubric was created as the Department wanted to assess whether we were being successful in explaining to students the notion of historical opinion and theory as an example of thinking within the social sciences. In particular at freshman level most students come to college with the idea of history as a series of dates and facts. One of the most important pedagogical goals is to move students past this notion to the realization that history is a complex and theoretical attempt to understand and explain the past. Two of the History Departments' SLOs are for the students to be able to "articulate an interpretive framework of the complex and interrelated causes, courses, and consequences of historical events," and that the students be able to "demonstrate well-developed written and verbal skills in dissecting and creating nuanced analyses of historical events and historiographical interpretations of those events." These SLOs intersect with our GE SLO K2.

With this in mind we created a 4 point rubric (1= Poor, 2= Some Improvement, 3 = Some Mastery, and 4= Excellent.) which analyzed first if the student could write a clear thesis statement which would show an understanding of the topic and the basic historical debate. Secondly this rubric could be used to see if the student not only understood that there was historical debate but that there was a variety (difference) in the debate and that such debate shows difference, minor and major about the event.

The importance of historical debate is only as valid as the sources and so a vital aspect of the rubric was to see if the students noted the sources, primary and secondary, were able to cite them, organize them but also ensure that they had the main (canonical) writers on a particular topic included as part of the debate.

How did the faculty assess?

Faculty used the last written assignment of the semester - for HIST1000/1062 – which asked students to place a current event into an historical and global context.

Faculty also used a written assignment for HIST4990. This again was a final assessment: a 5,000 word historiography paper, complete with citations in proper format.

How many teachers, sections and students are involved?

HIST 1000/HIST 1062

During the fall 2013 semester the history department offered 8 sections in History 1000 and 19 in History 1062, a total of 27 sections. 267 Kean students took History 1000, while 625 students took History 1062. Therefore in total 892 students took HIST1000 and HIST1062. 239 students from 10 HIST 1000/1062 sections were assessed using the Rubric for GE K2-Evaluating Major Theories and Concepts in Social Sciences.

In fall semester of 2013, a total of 4 faculty taught HIST 1000 – one full time and 3 adjuncts, while 17 faculty members (7 full timers and 10 adjuncts) taught HIST 1062.

Who are the population required to take the course?

HIST 1000/HIST 1062

There are at present two different history courses offered at the General Education introductory level: History 1000 American Civil Society and History 1062 Worlds of History. The former is being phased out and will no longer be offered after the academic year AY2013-2014.

Every Kean student who enters as a freshman must take one of these courses in order to fulfill their General Education requirements. This requirement means that History 1000/1062 is an excellent place to assess GE SLOs K2.

HIST4990

The students in HIST4990 are history majors, either first or second subject, BA Teacher's Education or BA Teacher's Certificate with a concentration in history. In order to be allowed to sign up for the course, the student must have achieved a minimum GPA of 2.75, they must have taken at least 30 credits in history previously (with only 2 "C" grades in history allowed).

Expectation Level:

HIST1000/1062:

It is expected that by the end of this course, students will have an initial familiarity with historical research measured by 70% of students achieving a 2.3 on a 4 point scale.

HIST4990

The expectation is that by the end of this course, students will have mastery of historical research measured by 80% of students achieving a 3.5 on a 4 point scale.

Results

GE K2 History 1000/1062

Strengths

1. Beginning students demonstrate some mastery of writing a thesis statement and introductory paragraph (mean 2.9)
2. Beginning students demonstrate some mastery of effective essay organization (mean 2.9)

Weaknesses

1. Students struggle with using the appropriate citation method for a history essay and bibliography (mean 2.5)
2. Students demonstrate a limited ability to effectively use history sources in supporting an effective argument (mean 2.6)
3. Students demonstrate a lack of proficiency in understanding the variety of historiographical debate (mean 2.6)

Closing the Loop

1. General Education-History classes will place renewed emphasis on using and applying primary source materials
2. General Education-History faculty will offer examples of how secondary source materials are used in creating a historiographical argument
3. Department faculty will explore adopting standard writing guidelines across the History-General Education curriculum and provide instruction on the appropriate citation style and technique and understanding the university plagiarism policy
4. The Department will propose a new History GE Course based on the Freshman Seminar model to provide greater opportunities to strengthen writing and critical thinking skills
5. Partner with the University Writing Center to improve grammar and style of history majors

GE K2 History 4990

Strengths

1. A majority (82% level 4) of students demonstrate competence in the ability to relate the variety of historiographical debate to major theories in the discipline (mean 3.7)
2. 79% of the students effectively use history sources in supporting an effective argument (mean 3.6)

Weaknesses

1. A majority (47% below level 4) of students failed to demonstrate mastery of writing an effective thesis statement/introduction (mean 3.3)
2. History majors demonstrate inconsistency in utilizing appropriate citation methods and techniques. 13% only met basic level (level 1) while 26% at level 2-3.
3. History majors struggle to organize a formal essay that effectively supports their argument. 11% reach level 1-2 while 18% reach level 3. 71% met level 4.

Closing the Loop

1. The faculty will give instructions on how to write an effective thesis statement/introduction in class.

2. A common writing workshop will be required of all teaching professors in 2000 level classes upwards using common standards available on our websites. The workshop will provide specific instruction on how to teach student to write thesis statement and citation method.

3. The Department of History will look to expand workshops in research and writing in both in class and online settings with emphasis on organizing the essays that effectively support the argument.

Part Two (K3):

GEK3 – HIST 1000/HIST 1062

GEK3 – HIST 4990

How was the Rubric created?

The rubric was created to help the history department recognize if our students can understand and distinguish the notions of interpretation in historical literature. At 1000/1062 level the rubric was used to see if students had moved from a pre-college level of seeing history as a collection of historical facts and events into the college mindset of seeing history as interpretation which needs analysis.

At HIST4990 level the Department expects the student to write a 5,000 word historiographical essay, fully cited with a clear thesis statement. The rubric was used there to see if indeed the students had achieved a written mastery of understanding various opinions, and schools of thought.

We put together a 4 point rubric: 1= Poor, 2= Some Improvement, 3 = Some Mastery and 4= Excellent.

In both cases we divided the Rubric into sections: first noting the idea of historical context. Did the students show understanding not only of the topic but also the consequences of the events, both in the long and short term? Second we wanted to see if the students understood the notion of debate in literature about this topic: how it is discussed and interpreted? In order to understand historical literature the students also needed to understand the idea of sources, evidence and the importance of citing these sources, both primary and secondary. These were the third and fourth areas under

discovery and finally we wanted to see if the students writing was 'academic', written according to our discipline's standards.

How did the faculty assess?

Faculty used the last written assignment of the semester - for HIST1000/1062 – which asked students to place a current event into its historical and global context.

The written assignment for HIST4990 was the culmination of the course: a 5,000 word historiography paper, complete with citations in proper format.

How many teachers, sections and students are involved?

HIST 1000/HIST 1062

During the Fall 2013 semester the history department offered 8 sections in History 1000 and 19 in History 1062, a total of 27 sections. 267 Kean students took History 1000, while 625 students took History 1062. Therefore in total 892 students took HIST1000 and HIST1062. 239 students from 10 HIST 1000/1062 sections were assessed using the Rubric for GE K3.

In fall semester of 2013, a total of 4 faculty taught HIST 1000 – 1 full time and 3 adjuncts, while 17 faculty members (7 full timers and 10 adjuncts) taught HIST 1062.

Who are the population required to take the course?

HIST 1000/HIST 1062

There are at present two different history courses offered at General Education introductory level: History 1000 American Civil Society and History 1062 Worlds of History. The former is being phased out and will no longer be offered after the academic year AY2013-2014.

As these are General Education Courses, every Kean student who enters as a freshman must take one of these courses in order to fulfill their General Education requirements, making these courses the perfect place to assess GE SLO K3.

HIST4990

The students in HIST4990 are history majors, either first or second subject, BA Teacher's Education or BA Teacher's Certificate with a concentration in history. In order to be allowed to sign up for the course, the student must have achieved a minimum GPA of 2.75, they must have taken at least 30 credits in history previously (with only 2 "C" grades in history allowed).

Expectation Level:

HIST1000/1062:

Our expectation is that by the end of this course, students will have an initial familiarity with historical research measured by 70% of students achieving a 2.3 on a 4 point scale.

HIST4990

Our expectation is that by the end of this course, students will have mastery of historical research measured by 80% of students achieving a 3.5 on a 4 point scale.

Results

GE K3 1000/1062

Strengths:

1. Beginning students demonstrate some mastery of understanding historical contexts (mean 2.9,50% at level 3 and 24% at level 4)
2. Beginning students are able to incorporate basic grammar and style conventions in their writing (mean 2.9, 46% at level 3 and 25% at level 4)

Weaknesses:

1. Students demonstrate a lack of proficiency in properly applying discipline-specific citation methods (mean 2.6, 15% at level 1 and 48% at level 2)
2. Beginning students struggle in applying sources and evidence in a history essay (mean 2.6, 11% at level 1 and 32% at level 2)
3. Beginning students struggle in understanding historiography (literature/debate) (Mean 2.6, 12% at level 1 and 28% at level 2)

Closing the Loop

1. The Department will propose a new History GE Course based on the Freshman Seminar model to provide greater opportunities to strengthen writing and critical thinking skills
2. Department faculty will explore adopting standard writing guidelines across the History-General Education curriculum and provide instruction on the appropriate citation style and technique
3. Students will be encouraged to attend lectures and other events by Department of History faculty and invited speakers in order to strengthen their ability to understand historical context
4. Increase the number of students completing tours at Liberty Hall Museum to improve their ability to make connections between documentary evidence, material culture and historical arguments

GE K3 4990

Strengths:

1. Compared with students in HIST1000/1062 (Mean 2.0, 50% at level 3 and 24% at level 4), seniors taking HIST4990 show greater understanding of Historical Context (mean 3.8, 89% at level 4)

2. While entry-level students in HIST1000/1062 are still struggling in applying sources and evidence in history essay, (Mean 2.6, 11% at level 1 and 32% at level2), seniors enrolled in HIST4990 demonstrate increased use and understanding of sources and evidence (mean 3.6, 82% at level 4)

3. Students at advanced level report greater self-confidence in understanding Historiographical Arguments (mean 3.6, 79% at level 4) when compared with students at entrance level (Mean 2.6, 12% at level 1 and 28% at level 2).

Weaknesses

1. Students continue to struggle with discipline-specific citation method (Citations mean 3.4, 68% at level 4 while 13% at level 1)
2. History majors improve only marginally with grammar and style in their writing (mean 3.6, 76% at level 4 while 8% at level 1 and 16% at level 3) when compared with entry level students.

Closing the Loop

1. Implementation of a Junior Seminar to focus on skill development including historical methods and Chicago Manual of Style technique which will help Weakness 1 mentioned above, and to strengthen historiographical skills
2. Continue to provide Department Writing Workshops (Addresses Weakness number 2 listed above)
3. Partner with the University Writing Center to improve grammar and style of history majors
4. Department of History Faculty will continue to refine rubrics to more closely assess discipline specific skills

Appendices:

1. Rubric for GEK 2 – Evaluating Major Theories and Concepts in Social Sciences

2. Results for HIST1000/1062

3. Results for HIST4990

4. Rubric for GEK3 – Relating (Historical) Literature to Historical Context

5. Results for HIST 1000/1062

6. Results for HIST 4990

Appendix 1

Major Theories	Excellent 4	Some Mastery 3	Needs Improvement 2	Poor 1
GEK2				
Thesis Statement/Introduction	Clear introduction/statement of purpose which explains the significance of the subject.	There is a thesis statement/introduction but its needs some clarity.	Thesis statement is unclear. Argument seems muddled.	There is no thesis statement/Introduction.
Variety of Historiographical Debate	Shows multiple levels of historiographical debate. Has read and shows an understanding of the main debates and authors.	Most of the main concepts in historiography are covered.	Has little historiographical debate.	Shows no historiographical debate.
Sources	Has read the main sources on the topic, has included them in the essay and has shown an understating of them	Shows student has read most of the sources but lacks one/two particular theories.	Most of major concepts are not here. Essay has only one or two major theorists.	No major concepts are discussed.
Organization[1]	The essay shows clear organization/purpose/flow from introduction to conclusion.	There essay has a great beginning but conclusion needs work.	Essay wanders and the argument is difficult to follow.	There is no organization or clarity in the essay.
Citations/Bibliography	Has adequate number of sources in the bibliography and these are reflected in the footnotes as well.	Most of the sources in the bibliography are included in the footnotes.	Essay's footnotes are based only on 2/3 sources, though bibliography claims many more.	Not enough sources either in bibliography or footnotes.

[1] Jonathan Mercantini, "Grading Rubric."

Appendix 2

GEK2: Evaluating Major Theories and concepts in Social Science

HIST 1000/1062.

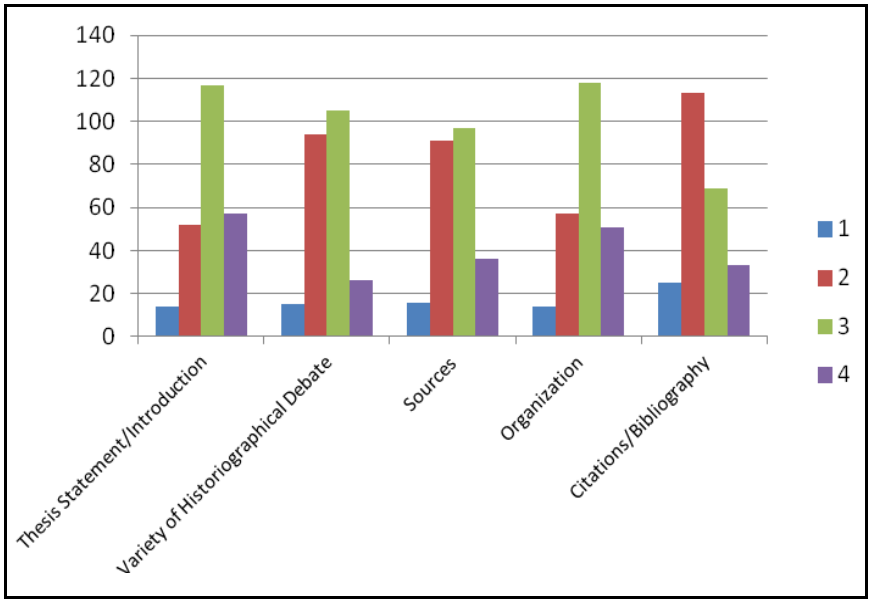
Semester: FALL 2013

REPORT DATE: 1/8/2014

Major Theories and concepts are assessed based on the student's final writing assignment using a rubric developed by the Kean University History Department.

Number of students: 240
Number of sections: 10

Distribution of Scores



Mean scores overall:

	mean
Thesis Statement/ Introduction	2.9
Variety of Historiographical Debate	2.6
Sources	2.6
Organization	2.9
Citations/ Bibliography	2.5

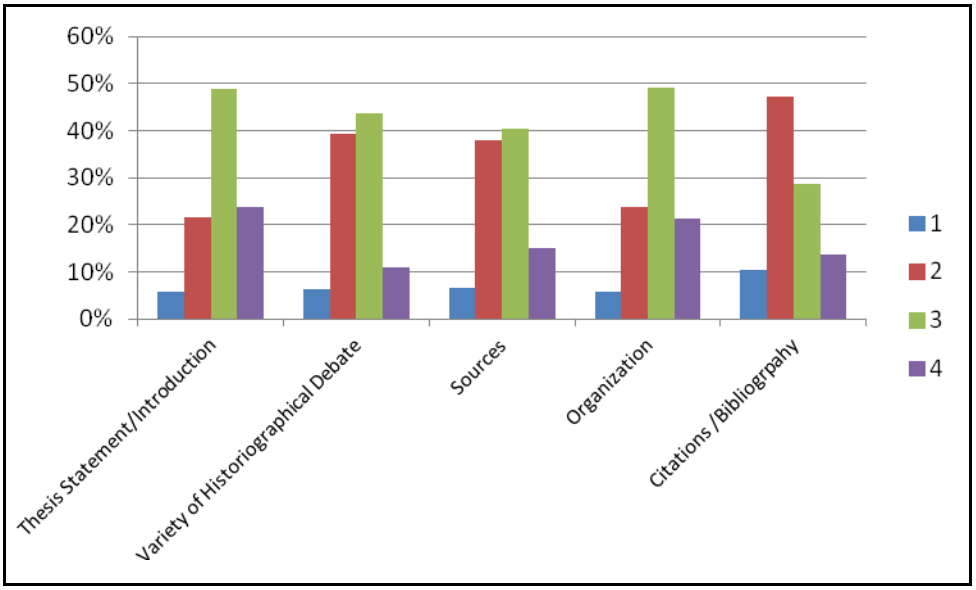
Distribution of Scores:

Frequency by score

	Thesis Statement/ Introduction	Variety of Historiographical Debate	Sources	Organization	Citations / Bibliography
1	14	15	16	14	25
2	52	94	91	57	113
3	117	105	97	118	69
4	57	26	36	51	33
total	240	240	240	240	240

Percentages of score

	Thesis Statement/ Introduction	Variety of Historiographical Debate	Sources	Organization	Citations /Bibliography
1	6%	6%	7%	6%	10%
2	22%	39%	38%	24%	47%
3	49%	44%	40%	49%	29%
4	24%	11%	15%	21%	14%



Appendix 3

GEK2: Evaluating Major Theories and concepts in Social Science

HIST 4990

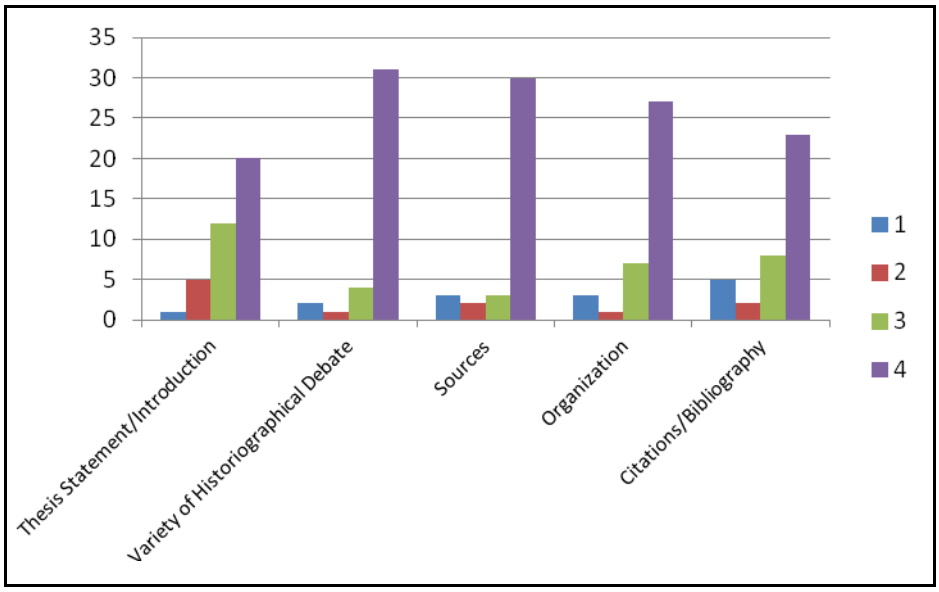
Semester: FALL 2013

REPORT DATE: 1/15/2014

Major Theories and concepts are assessed based on the student's final writing assignment using a rubric developed by the Kean University History Department.

Number of students: 38
Number of sections: 3

Distribution of Scores



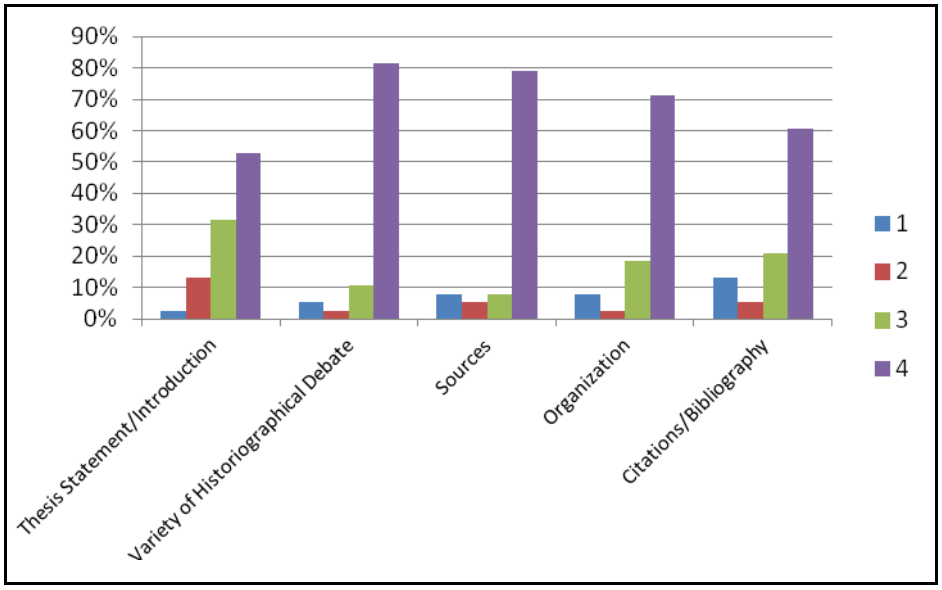
Mean scores overall:

	mean
Thesis Statement/ Introduction	3.3
Variety of Historiographical Debate	3.7
Sources	3.6
Organization	3.5
Citations/ Bibliography	3.3

Distribution of Scores

	Thesis Statement/ Introduction	Variety of Historiographical Debate	Sources	Organization	Citations/ Bibliography
1	1	2	3	3	5
2	5	1	2	1	2
3	12	4	3	7	8
4	20	31	30	27	23

Distribution of Percentages



Distribution of Percentages:

	Thesis Statement/ Introduction	Variety of Historiographical Debate	Sources	Organization	Citations/ Bibliography
1	3%	5%	8%	8%	13%
2	13%	3%	5%	3%	5%
3	32%	11%	8%	18%	21%
4	53%	82%	79%	71%	61%

Appendix 4

Historical Content	Excellent 4	Some Mastery 3	Needs Improvement 2	Poor 1
GEK3				
Understanding Historical Context	Understand the subject but also shows the consequences of the topic in the long and short term	Shows some understanding of the consequences of the events.	Shows very limited understanding of consequences of the event.	Shows no understanding of the topic outside of its own time period.
Understanding Historiography (Literature/Debate)	Shows an clear understanding of historical debate within the area in question.	Shows some understanding of historical debate, but needs to further clarify other historical viewpoints/literature.	A little understanding of debate but unclear about variety of viewpoints on the topic.	No understanding of notion of debate or variety of historical literature/debate.
Sources and Evidence[2]	Excellent use of sources which show a clear argument.	Uses an adequate number of sources but there are some gaps in the argument.	Some evidence provided. Argument however is almost lost through lack of sources.	Little or no evidence provided through sources to maintain the argument proposed.
Citations (Technical)	All sources are cited according to Chicago Style Manual.	All sources are cited but some have incorrect formatting.	There is a need for many more citations	Few if any sources are cited.
Grammar and Style[3]	Writing has complete sentences, with correct grammar, spelling and punctuation.	Some grammar and spelling errors but argument remains clear.	Spelling and punctuation errors take away from some clarity. Additional proof reading needed.	Major editing and proof-reading needed. Sentence structure leaves argument unclear.

[2] Jonathan Mercantini, "Grading Rubric."
[3] Op. Cit.

Appendix 5

GE K3: Relating Literature to Historical Context

History 1000/1062

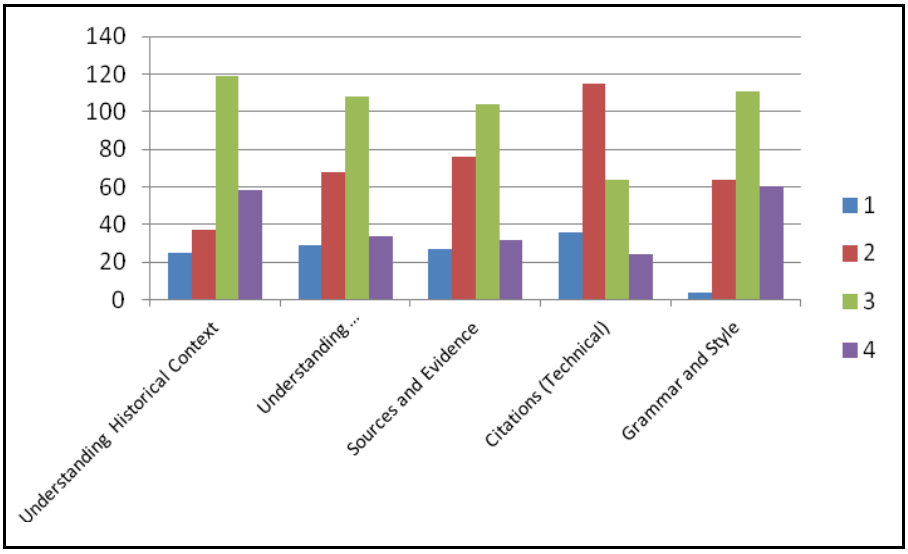
Semester: FALL 2013

REPORT DATE: 1/8/2014

Historical Context is assessed based on the student's final writing assignment using a rubric developed by the Kean University History Department.

Number of students: 239
Number of sections: 10

Distribution of Scores



Mean scores overall:

Understanding Historical Context	2.9
Understanding Historiography (Literature/ Debate)	2.6
Sources and Evidence	2.6
Citations (Technical)	2.3
Grammar and Style	2.9

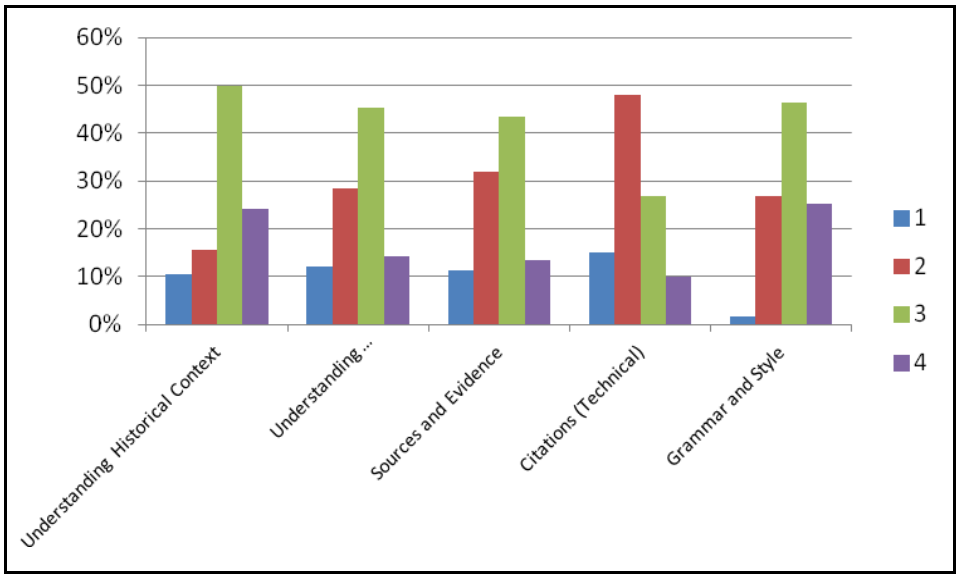
Distribution of Scores:

Frequency by score

	Understanding Historical Context	Understanding Historiography (Literature/ Debate)	Sources and Evidence	Citations (Technical)	Grammar and Style
1	25	29	27	36	4
2	37	68	76	115	64
3	119	108	104	64	111
4	58	34	32	24	60
total	239	239	239	239	239

Percentages of score

	Understanding Historical Context	Understanding Historiography (Literature/Debate)	Sources and Evidence	Citations (Technical)	Grammar and Style
1	10%	12%	11%	15%	2%
2	15%	28%	32%	48%	27%
3	50%	45%	44%	27%	46%
4	24%	14%	13%	10%	25%



Appendix 6

GE K3: Relating Literature to Historical Context

History 4990

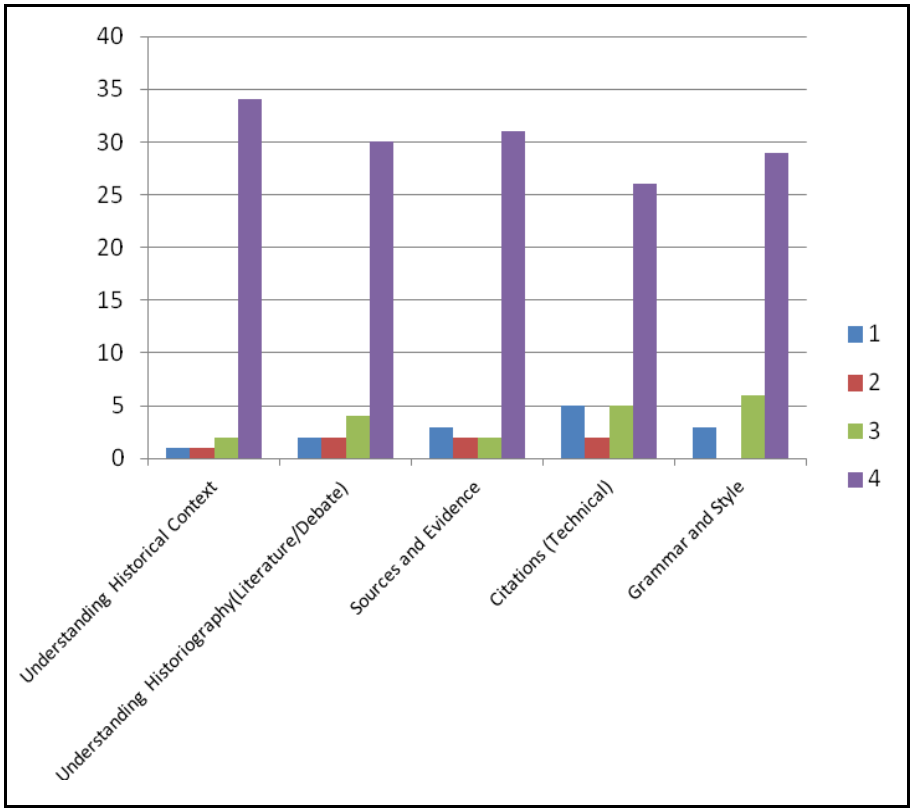
Semester: FALL 2013

REPORT DATE: 1/8/2014

Historical Context is assessed based on the student's final writing assignment using a rubric developed by the Kean University History Department.

Number of students: 38
Number of sections: 3

Distribution of Scores



Mean scores overall:

Understanding Historical Context	3.8
Understanding Historiography (Literature/ Debate)	3.6
Sources and Evidence	3.6
Citations (Technical)	3.4
Grammar and Style	3.6

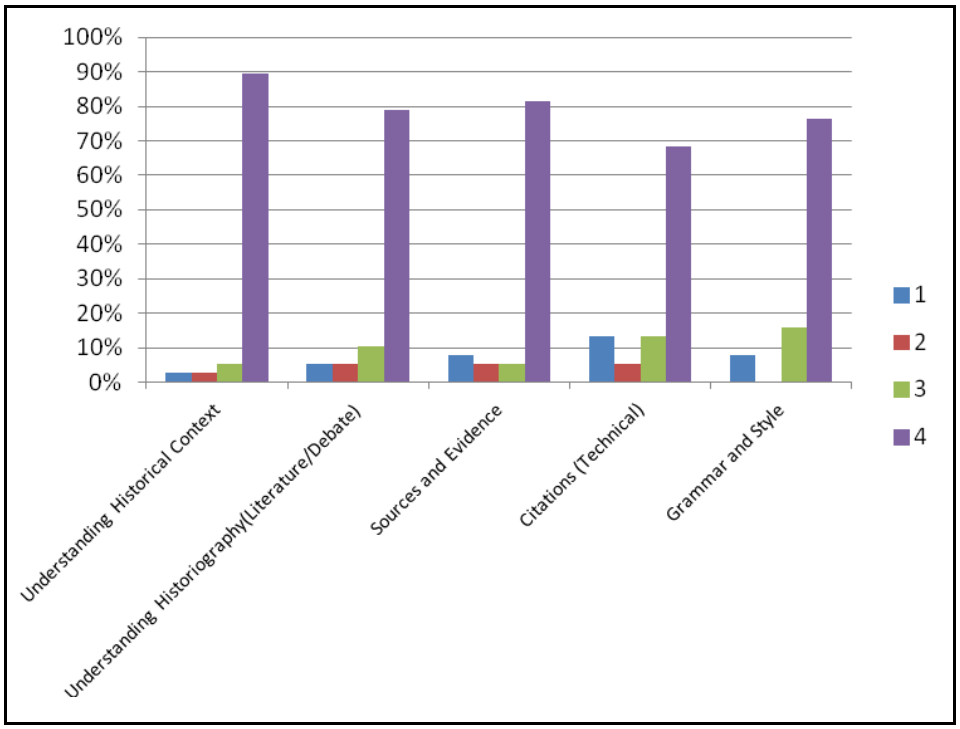
Distribution of Scores:

	Understanding Historical Context	Understanding Historiography (Literature/ Debate)	Sources and Evidence	Citations (Technical)	Grammar and Style
1	1	2	3	5	3
2	1	2	2	2	0
3	2	4	2	5	6
4	34	30	31	26	29

Distribution of Percentages

	Understanding Historical Context	Understanding Historiography (Literature/Debate)	Sources and Evidence	Citations (Technical)	Grammar and Style
1	3%	5%	8%	13%	8%
2	3%	5%	5%	5%	0%
3	5%	11%	5%	13%	16%
4	89%	79%	82%	68%	76%

Distribution of Percentages



GE SLO# K4: Evaluating major theories and concepts in the fine arts - Introductory

Art History 1700

Semester: FALL 2013

REPORT DATE: 2/3/2014

The evaluation of major theories and concepts in the fine arts is assessed at the introductory level in the AH 1700: Art History course (one of two selected Humanities GE designated courses). In this course, students are introduced to the practice of formal analysis, which is one of the major theories and concepts in the fine arts.

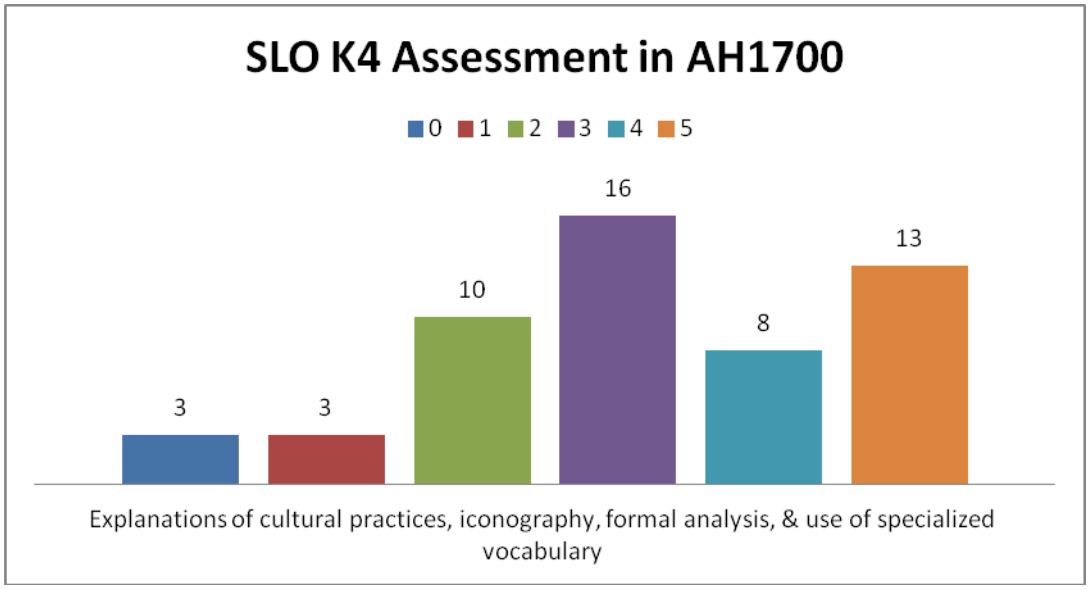
In AH 1700 this past semester, this outcome has been assessed using a three-page paper where students must analyze works of art observed at a museum. Papers were evaluated holistically using four criteria from a departmental rubric specific to evaluating formal analysis in the fine arts. Performance was rated on a 5 point scale (5 = exceeded expectations). A combined score of 3 indicates that students have met the expectations for these criteria. Faculty established a target where 70% of students will achieve a score of 3 or better on this criteria.

Number of students: 53
Number of sections: 2

Distribution of Scores:

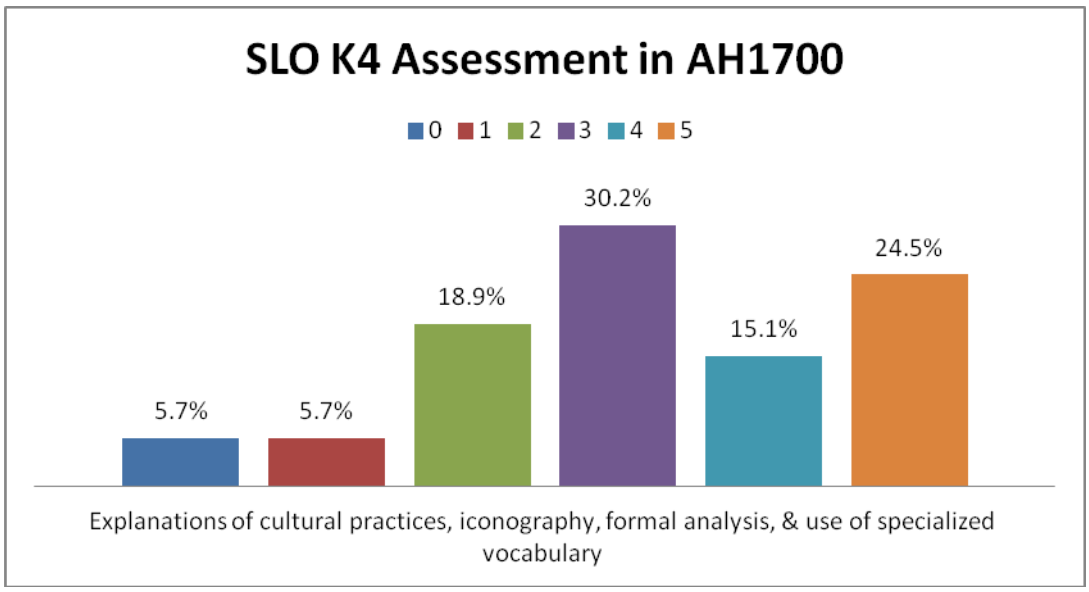
Criteria	Level 0*	Level 1	Level 2	Level 3	Level 4	Level 5	Total
Explanations of cultural practices, iconography, formal analysis, & use of specialized vocabulary	3	3	10	16	8	13	53

*Level 0: student did not provide any answer in the test.



Distribution of Percentage

Criteria	Level 0	Level 1	Level 2	Level 3	Level 4	Level 5
Explanations of cultural practices, iconography, formal analysis, & use of specialized vocabulary	5.7%	5.7%	18.9%	30.2%	15.1%	24.5%



Discussion/Action/Closing the Loop:

The data indicates that 69.8% of students were able to achieve a score of 3 or better on this assessment. These results are relatively close to the established target of 70%. To support greater student acquisition in the evaluation of major theories and concepts in the fine arts, the faculty will discuss the following proposed actions (listed below) in Spring 2014:

Actions (to be implemented in Fall 2014):

- Review and revise, as appropriate, course activities that prepare students for formal analysis of works of art.
- Work with all instructors of AH 1700, both full- and part-time, to ensure that the major assignment in the course is a paper emphasizing formal analysis of works of art appropriate to the time period covered in the class.
- In future assessments of this learning outcome, clarify what major theories and concepts in the fine arts are pertinent to an introductory course in art history in the general education sequence. Rubrics and the criteria necessary to assess student work in these areas will come from the theories and concepts identified by art history faculty in the Fine Arts Department.
- In future assessments of this learning outcome, rubric criteria will be separated out (as opposed to holistic scoring) to increase the usefulness of collected data for subsequent decision making.

Appendix: Assignment Guidelines (as articulated in the AH 1700 Syllabus)

MUSEUM PAPER COMPARING AND CONTRASTING ARTWORKS GUIDELINES

1) Visit the Metropolitan Museum in NYC on your own.

- To get there: look it up online metmuseum.org, look online for New Jersey Transit trains (www.njtransit.com) and the NYC Subway (www.mta.info/maps/submap.html) or consider driving in and parking on the street. A significant aspect to this whole paper assignment is for you to figure out how to navigate to and through New York City.
- Look around and choose any two (or three) artworks that you like to discuss in your paper.
- The artworks must all be dated before the year 1300, which is the time period that this course covers. Since you will be comparing and contrasting the artworks, you should choose ones that are similar in some ways and different in other ways. For example: two sculptures from the same culture period, or two paintings of the same subject matter.

2) While at the museum, take several photos of your chosen artwork to study from.

- While at the museum, write the identification of artworks: title, date, culture period, material, size, subject matter.
- While at the museum, write out a list of items for a visual description (about a page):
    - Things to include in the description but not limited to: date, culture, original location, material, size, texture, color, subject matter, story, emotional content, use or function, religious belief or ideology.
- You will hand in your artwork identifications and visual descriptions in the middle of the semester.

3) Go to the library and look for books or articles on the group of art that your artwork belongs to.

- No single artwork will have its own book; rather, look for books on the general culture period.
- You may use e-books and websites that end in ".edu" or ".org"
- Do not use websites that end in ".com" because they are not necessarily reliable sources of correct information.
- When you use information from a book or article or website, you must give the full bibliographic citation (author, title, etc.) so be sure to write it down when you are doing your research.
- You will hand in a working bibliography in the middle of the semester that must include 3-8 books and articles;
- Any websites would be in addition to these books and articles. In other words, you cannot use only websites; you must use at least 3 books or articles.
- You will be handing in your final bibliography alongside the paper when it is due.
- See handout on how to write a bibliography.

4) Organize your information (from your own eyes and from your research) comparing and contrasting your artworks.

- You will be handing in your final outline alongside the paper when it is due.
- See handout on how to write an outline.

5) Write your paper from the outline.

6) Format:

- 3 full pages of text (not including title page or any images) typed, double spaced, inch margins all around
- In your final paper, include:
    - an identification of artworks
    - detailed visual descriptions
    - researched information
- Along with your final paper, also hand in:
    - a title page
    - a bibliography (any books, articles, or website you used)
    - an outline of your paper

Appendix: Art History Content Rubric for GE course AH1700

Student Name: _____ Score : _____

Kean ID: _____

Course and Section: _____

Semester and Year:_____

Instructor's name: _____

GE K4: evaluating major theories and concepts in the fine arts

For use in the GE course AH 1700

Description of Content Rubric

GE K4: evaluating major theories and concepts in the fine arts

	5	4	3	2	1	0
Ideas about cultural practices including religious, sexual, political practices	Explanations are explicit, nuanced, & complex	Explanations are explicit but not complex	Explanations are in general terms	Explanations are merely a vague stance	Explanations are not clear	N/A
Art historical strategies for interpreting art such as iconography, feminism, queer theory, etc.	Explanations are explicit, nuanced, & complex	Explanations are explicit but not complex	Explanations are in general terms	Explanations are merely a vague stance	Explanations are not clear	N/A
Formal analysis (how to read the visual elements of art)	Explanations are explicit, nuanced, & complex	Explanations are explicit but not complex	Explanations are in general terms	Explanations are merely a vague stance	Explanations are not clear	N/A
Art Historical vocabulary	Explanations are explicit, nuanced, & complex	Explanations are explicit but not complex	Explanations are in general terms	Explanations are merely a vague stance	Explanations are not clear	N/A

Comments (use back if needed):

GE S1 Introductory Level

This area has now been assessed for 2 cycles. The leader of composition (and the author of Kean's writing rubric), Dr Mark Sutton, conducts norming and closing the loop meetings at the end of each academic year. Given the history of data available to us for S1 introductory, the OAA did not ask Dr Sutton to change his approach this year (to create a special end of Fall report). We are therefore presenting here the results of his 2013 work.

Results of 2013 College Composition Portfolio Assessment

Prepared for

Dr. Suzanne Bousquet
Dean, College of Humanities and Social Sciences
Kean University

Prepared by

Dr. Mark Sutton
Coordinator, College Composition Program

July 2, 2013

TABLE OF CONTENTS

LIST OF TABLES

ABSTRACT

This report presents the results of the June 2013 College Composition portfolio assessment. The first section outlines the procedures used to select and evaluate portfolios during the reading. They correspond to best practice in Composition Studies. Next, the results of the reading will be summarized. Students in all versions of the course showed improvement in their writing ability, as represented by the University Writing Rubric. There was, however, less improvement than last year. The exact cause is unclear, though I expect Hurricane Sandy may have had a strong influence. We also measured students' ability to demonstrate reflective thinking. The results imply that students seem to meet program expectations in terms of reflective thinking, though we may need to work on ensuring those standards are uniformly applied. The report ends by describing changes to the program resulting from the reading. These include requiring faculty to teach rhetorical analysis, modifying our endpoint essay procedures so that they better reflect other timed writing situations, and shifting our professional development focus to emphasize teaching students how to conduct substantive revisions.

INTRODUCTION

In 2012-2013, over 1500 College Composition students created portfolios. A portfolio is a collection of written work, usually containing multiple drafts and preceded by a reflective introduction describing how the portfolio demonstrates the creator's growth. They are considered best practice in Writing Studies because they emphasize process, revision, and reflection, fundamental concepts in the discipline. College Composition emphasizes writing as a process, where student-writers take several days to analyze a rhetorical situation; develop ideas; prepare a first draft; and revise, edit, and proofread that draft repeatedly until it meets their goals. Students learn how to personalize and adapt their writing processes to multiple rhetorical situations and genres. Portfolios are one of the few assessment methods that can display multiple genres and drafts created over time (White *Assigning* 163). Jeffrey Sommers states, "the portfolio itself tends to encourage students to revise because it suggests that writing occurs over time, not in a single sitting, just as the portfolio itself grows over time and cannot be created in a single sitting" (153-54). Overall, portfolio assessment, as The Middle States Commission on Higher Education notes, can "provide an exceptionally comprehensive, holistic picture of student learning" (51).

College Composition portfolios represent a rich data source that can inform instruction in multiple courses (including Research and Technology, College Composition, and Writing Emphasis courses), provide evidence to support institutional assessment efforts, and improve faculty members' ability to teach writing. In order to meet these goals, the College Composition program conducted a three-day portfolio assessment session on June 4-6.

See Appendix A for a description of the portfolio system used by College Composition and a history of past portfolio readings.

PORTFOLIO READING PROCDURES

GOALS

The session was guided by five goals:

- Evaluate the students' use of reflective thinking: The benefits of reflection, "the process by which we know what we have accomplished and by which we articulate accomplishment," are well-documented throughout educational research (Yancey 6). Student reflections can "give faculty members useful insights into the learning process, help students integrate what they have learned, and provide students with an understanding of the skills and strategies they need to learn most effectively" (*Middle States* 45). During the last portfolio assessment, the readers determined our students demonstrated lower ability to demonstrate reflective thinking than we wanted them to possess. We decided to incorporate more reflective assignments throughout the semester and to establish a common prompt for the portfolio's reflective introduction. The portfolios will help us determine if our changes led to student improvement in this area.

- Determine the greatest and least areas of improvement in the students' writing: The program's rubric defines the major rhetorical elements faculty teach in our courses. By examining how students apply these elements in their work, the program can see what skills and strategies the composition faculty tend to teach well. We can also determine where we should direct our professional development energies for the coming year so that we can improve in weaker categories.
- Acquire insights on writing growth to inform other programs: College Composition represents a significant point in Kean students' journey toward becoming stronger writers, a journey begun in their K-12 schooling. Other classes, such as Research and Technology and Writing Emphasis courses in the major, build on what they learned in Composition. As a result, the data from College Composition's portfolios can be used to inform instruction for those courses, increasing the chances students will continue to grow as writers throughout their time at Kean.
- Provide data for institutional analysis: Kean must continually gather data on student outcomes in order to increase the chances our students will learn what they need to be successful after graduating. College Composition does its part through the reading.
- Promote the professional development of College Composition faculty: The staff for this session was drawn mostly from College Composition faculty. Participating in this project offered them the opportunity to examine effective teaching strategies they may not have considered. Faculty can then incorporate these strategies into their own classrooms. No other professional development activity provides this opportunity for interaction through as cost-effective a fashion.

STAFFING

The College Composition program followed standard practice in the discipline when staffing the reading. Participants included:

- a chief reader who oversees the reading and resolves any disputes (White *Teaching* 200). I acted as the chief reader.
- table leaders who "maintain a consistent grading standard at their tables" (200). Kim Chen, Charles Nelson, and Lisa Sisler served as table readers.
- readers who review portfolios and assign scores based on a pre-determined set of criteria. The following faculty served as readers: Emily Axelrod, Rochelle Baltin, Neiha Bhandari, Angela Castillo, Anthony Chu, Michele Jelley, Shannon Harry, Christina Nuzzolo, Eliana Rantz, Patricia Schnepf, and Sam Schrieber. All taught in the Composition program during the 2012-2013 academic year.
- aides who "distribute and collect portfolios, conceal the scores given on first readings, discover discrepancies, and check the count" of portfolios to be reviewed (201). Students Jennifer Alverez-Otero, Karl Covington, and Andre Jones served as aides.

PREPARATORY WORK

The portfolios were divided into two strata: one for ENG 1030 and 1620, and the other for 1031/1032 and 1033/1034. A random sample representing approximately nine percent of each strata was selected. The counts by course type were:

- ENG 1030, Summer sessions: 3
- ENG 1030, Fall semester: 80
- ENG 1031, Fall semester: 23

- ENG 1030, Spring semester: 7
- ENG 1031, Spring semester: 7

No 1620 or 1033/1034 portfolios were selected this year. This is not surprising, as we only offered one section of both courses.

Portfolios were identified by number only. Student names, instructor names, and references to the course format were removed.

Several additional portfolios, taken from last year's reading, were selected for training and norming purposes. These portfolios were scored by all participants, and we discussed those rankings as a way to help everyone become part of "an assenting community that feels a sense of ownership of the standards and the process" of assessment (White *Teaching* 215). This type of norming is common practice in Writing Studies.

READING

Training session

Training took place on June 4. Participants read and evaluated four sample portfolios, discussing the scores afterwards in order to reach shared standards for the rubric criteria. We also reviewed the procedures for the reading. Along the way, we discussed our expectations for students' reflective thinking, guided by two chapters from Kathleen Blake Yancey's *Reflection in the Writing Classroom*. We developed the criteria used to evaluate reflective thinking through these discussions.

Reading sessions

The reading sessions took place on June 5 and 6. Both days started with a group norming session where we evaluated one portfolio and discussed the scores in order to maintain consensus. We renormed after lunch on June 5.

Each portfolio was evaluated by two different faculty members, focusing on two levels. See Appendix B for a copy of the scoring sheet. The first level examined the overall quality of writing in a portfolio, using the same criteria as the baseline rubric. See Appendix C for a description of these criteria. While the portfolios were read holistically, readers assigned a separate score for each criterion. For purposes of analysis, averages were rounded to the closest whole number.

Criteria strongly related to the program's mission statement were treated as critical:

- Focus
- Development
- Organization
- Revision

If readers gave scores more than two points apart on any critical criterion, or if they gave scores more than one point apart in two or more, a third reader scored the portfolio on only the contested categories. Only eighteen portfolios required a third read, implying the readers generally maintained a shared understanding of the standards throughout the reading.

Second, readers were asked to evaluate the students' ability to effectively reflect on their writing processes and products. The scale was: exceeds program expectations, meets program expectations, does not meet program expectations, and no evidence (given only if the portfolio did not include a reflective introduction).

For our purposes, reflective writing that met program expectations demonstrated the following characteristics:

- draws on text-based/class-based evidence
- makes connections between and among work in the portfolio, events from the class, and the students' overall learning
- rich, appropriate use of details
- not formulaic
- should present an objective self-assessment
- gives a sense of the student's process
- should show metacognition, or that students know what they need to learn

In addition to individual reading, tables could decide to discuss problematic portfolios as a group or take time to re-norm themselves with additional sample portfolios. These activities were conducted at the table leader's discretion.

RESULTS

METHODOLOGY

Overall quality

Scores from both portfolio readers were averaged together and rounded to the nearest whole number. These scores were then compared with data gathered through the baseline rubrics, keyed to the diagnostic taken at the beginning of each semester.

Each strata was divided in half. Students who scored from 3 to 5 on a criterion were grouped together, and students who scored 1 or 2 were grouped together.[1] At this stage, the percentage of students at each level were compared. In the future, I would like to perform statistical tests on these results to determine significance.

Reflective thinking

Scores for reflective thinking were analyzed in two ways. First, the percent of scores given for each criterion was calculated. Second, I counted the number of portfolios to which both readers gave the same results.

Results for reflective thinking are tentative. We generated descriptors for these criteria as a group, and I cannot ensure the criteria were applied consistently.

[1] See Appendix D for non-aggregated data for each strata.

SUMMARY OF RESULTS

The results of the assessment are:

- Students in both versions of the course seem to have become better writers, though not in the same ways.
- In general, the percentage of portfolios that earned passing scores in each criteria decreased from last year. While the disruptions caused by Hurricane Sandy may have been the biggest influence, I cannot determine the exact cause.
- Approximately half of the portfolios included reflective introductions that met program standards.

The tables below discuss these results in more detail.

OVERALL QUALITY

Table 1 lists the percentage of ENG 1030 students who earned a passing score in each criteria in the diagnostic (pre-test) and portfolio (post-test).

Table 1: Comparison of ENG 1030 Pre- and Post-Rubric Scores

	% rated 3 or higher (passing)		
Criteria	**pre-test (n=700)**	**post-test (n=90)**	**Post-Pre Percent Change**
Genre/Audience	80.29%	87.78%	+7.49
Focus	83.86%	94.44%	+10.58
Development	75.29%	90.00%	+14.71
Organization	85.28%	90.00%	+4.72
Grammar/Mechanics	86.14%	94.44%	+8.30
Revision	54.43%	58.89%	+4.46

Overall, it seems like students' writing ability improved through the work in the course. The most growth occurred in development and focus, which are higher-order issues the program focuses on. Revision showed the least growth, a finding supported by the readers' impressions.

Table 2 compares the passing scores of last year's portfolio reading with this year's.

Table 2: Comparison of ENG 1030 Portfolio Passing Scores for AY 11-12 and AY 12-13

	% rated 3 or higher (passing)		
Criteria	**AY 11-12 (n=97; includes 1620)**	**AY 12-13 (n=90)**	**Percent Change**
Genre/Audience	95.92%	87.78%	-8.14
Focus	98.98%	94.44%	-4.54
Development	93.87%	90.00%	-3.87
Organization	94.90%	90.00%	-4.90
Grammar/Mechanics	95.92%	94.44%	-1.48
Revision	70.41%	58.89%	-11.52

The data show a decrease in the percentage of students who earned passing scores on their portfolios from AY 11-12 to AY 12-13, though most of the decreases are small. At this point, I cannot definitively explain why this change occurred. I speculate that it might be caused by the inclusion of six ENG 1620 portfolios in the AY 11-12 reading. The students in 1620 entered the course as stronger writers and presumably became stronger through practice, so it seems plausible that they may have raised the percentages. I also wonder if the disruption of Hurricane Sandy might have had an influence on student performance. Regardless, I plan to monitor these differences with next year's results to see whether the decline reflects a long-term trend.

Table 3 lists the percentage of ENG 1031/1032 students who earned a passing score in each criteria in the diagnostic (pre-test) and portfolio (post-test).

Table 3: Comparison of ENG 1031/1032 Pre- and Post-Rubric Scores

	% rated 3 or higher (passing)		
Criteria	**pre-test (n=237)**	**post-test (n=30)**	**Post-Pre Change**
Genre/Audience	75.94%	76.67%	+0.73
Focus	74.68%	83.33%	+8.65
Development	63.72%	83.33%	+19.61
Organization	63.71%	80.00%	+16.29
Grammar/Mechanics	72.16%	93.33%	+21.17
Revision	48.53%	66.67%	+18.14

As with the 1030 results, students seem to have grown as writers through their work in the course. In particular, there was strong growth in the fundamental skills of development and organization. Students also became stronger in grammar/mechanics, which tends to be an area of weakness when they enter the course. The small increase in Genre/Audience may come from students' difficulty in writing analysis. Several readers commented that the other genres in the portfolio were much stronger. As Table 1 shows, Genre/Audience was one of the weaker categories for ENG 1030 students.

Table 4 compares the passing scores of last year's portfolio reading with this year's

Table 4: Comparison of ENG 1031/1032 Portfolio Passing Scores for AY 11-12 and AY 12-13

	% rated 3 or higher (passing)		
Criteria	**AY 11-12 (n=22)**	**AY 12-13 (n=30)**	**Percent Change**
Genre/Audience	90.91%	76.67%	-14.24
Focus	95.45%	83.33%	-12.12
Development	95.45%	83.33%	-12.12
Organization	90.91%	80.00%	-10.91
Grammar/Mechanics	95.46%	93.33%	-2.13
Revision	45.55%	66.67%	+21.12

The data show a decrease in the number of students preparing passing portfolios in each criteria except revision. Again, I cannot account for this change beyond the influence of Hurricane Sandy, though I plan to monitor it.

REFLECTIVE THINKING

Table 5 presents the results of the reflective thinking assessment. A portfolio was not placed in a particular category unless both readers independently agreed on a score.

Table 5: Results of Reflective Thinking Assessment

Criteria	1030	1031/1032
Readers did not agree	24 (26.67%)	6 (20.00%)
Readers agreed reflective elements exceeded program expectations	3 (3.33%)	1 (3.33%)
Readers agreed reflective elements met program expectations	48 (53.33%)	14 (46.67%)
Readers agreed reflective elements did not meet program expectations	10 (11.11%)	5 (16.67%)
Readers agreed portfolio did not contain evidence of reflection, primarily the final reflection	5 (5.56%)	4 (13.33%)

Based on this data, it seems many of the students were able to meet our expectations for reflective writing. At least half the portfolios in each strata contained reflective introductions that met program expectations. That said, these standards were only defined explicitly the day before the reading, and the readers did not agree on the quality of reflection for between a fifth and a fourth of all portfolios. This implies the program still needs to work on ensuring faculty share the same standards. At this point, we decided to continue our current teaching practices and revisit the criteria we developed before establishing them as program practice.

PROGRAMMATIC CHANGES

Once the reading ended, the faculty discussed their impressions of the students' work and brainstormed changes to College Composition. They include requiring faculty to teach rhetorical analysis, modifying our endpoint essay protocols so they better reflect other timed writing situations, and increasing our emphasis in professional development on encouraging substantive revision.

ASSIGNING RHETORICAL ANALYSIS

Analysis remains a difficult genre for College Composition students. The readers felt that part of the problem came from too much variation in pedagogy across sections. We

all use the same genre definition, but professors can allow very different lenses, which determine how students construct the analysis.

We decided to require all composition classes to teach rhetorical analysis, focusing on the three artistic proofs (ethos, pathos, and logos). In their teaching, faculty would emphasize that the proofs are a lens used for analysis, not the only way someone can examine the features of a text. Readers felt that emphasizing the selection of analytic lenses would help transfer analytic skills to other contexts.

I will announce this change at this year's orientation, and we will review publications on teaching rhetorical analysis. In addition, the manual includes a list of articles and websites faculty can consult for teaching strategies or use in class.

MODIFYING ENDPOINT PROTOCOLS

This year's readers expressed concerns about the role the endpoint plays in the portfolio as a whole, as well as the impressions it gives about the program's values. The endpoint assignment gives students fifty minutes to write an argumentative essay based on a short news story. The interest level of subjects are inconsistent, and there is always a good chance students will know very little about the topic. It is hard to write well about an unfamiliar topic, especially under a pressure situation. We also wondered if we were giving students a sense that this type of timed writing was more important to the program than it actually is. Our goals statement emphasizes writing as an extended process. Portfolios allow the time process writing requires, making them a valid measure for our program. Yet we do feel that students need to know how to write a good piece of writing under constrained time limits.

In response to these issues, we decided to change the protocols for the endpoint. We will use a shell argumentative prompt. Faculty will add into it a topic discussed in class, specifically referring to a couple of readings done that semester. Students will be able to use the texts during the endpoint; we are examining their writing ability, not their reading recall. Students will have either fifty or seventy-five minutes to write their answer, depending on how long their class meets. Faculty will adjust their expectations accordingly, and the difference will be labeled on the portfolio piece.

SHIFTING PROFESSIONAL DEVELOPMENT FOCUS

The readers felt that students are not completing the kind of substantive revisions we expect. Mostly, they only edit their texts, and they frequently make few changes to the content, organization, or rhetorical features of their texts, even when these types are changes are needed. We wondered if the cause might be the kind of feedback students are receiving from their professors. If we only comment on sentence-level issues, students will consider that aspect of writing the most important. They will not focus on large-scale issues like purpose, audience, and organization, essential elements for conveying one's ideas.

This year's orientation will include two workshops on responding to student work in ways that encourage substantive revision. The first will focus on the scholarship on

responding to student writing. The second, done in cooperation with Karen Harris of the Center for Professional Development, will share tools for responding to student texts electronically, as well as give faculty time to practice those tools. Karen and I conducted a version of this workshop during Kean's Technology Innovation Institute this May, and it seemed to be successful.

CONCLUSION

This year's portfolio reading was a success. The data show that most students grew as writers, in at least some areas, through the course. The event also pointed out issues that the program can explore in order to better meet students' needs. I look forward to making these improvements and seeing how they lead to student success.

WORKS CITED (including sources used in Appendix A)

Bean, John C. *Engaging Ideas: The Professor's Guide to Integrating Writing, Critical Thinking, and Active Learning in the Classroom*. San Francisco: Jossey-Bass, 1996. Print.

Carroll, Lee Ann. *Rehearsing New Roles: How College Students Develop at College*. Carbondale: Southern Illinois UP, 2002. Print.

Hamp-Lyons, Liz, and William Condon. "Questioning Assumptions about Portfolio-Based Assessment." *Assessing Writing: A Critical Sourcebook.* Ed. Brian Huot and Peggy O'Neill. Boston: St. Martin's, 2009. 315-29. Print.

Haswell, Richard H. "Beyond Outcomes: Assessment and Instruction Within A University Writing Program." *Perspectives on Writing: Theory, Research, Practice*. Ed. Richard H. Haswell. Vol. 5. Westport: Ablex, 2000. Print.

---. "Documenting Improvement in College Writing: A Longitudinal Approach." *Written Communication* 17.3 (July 2000): 307-352. Sage. Kean U. Lib., Union, NJ. 24 March, 2009. http://wcx.sagepub.com/cgi/content/abstract/173/307 Online.

---. "Error and Change in Student Writing." *Written Communication* 5.4 (1988): 479-499. Print.

Mayer, John. *Uncommon Sense: Theoretical Practice in Language Education*. Portsmouth: Boynton/Cook, 1990. Print.

Middle States Commission on Higher Education. *Student Learning Assessment: Options and Resources.* Philadelphia: Middle States Commission on Higher Education, 2003. Print.

Sommers, Jeffrey. "Bringing Practice in Line with Theory: Using Portfolio Grading in the Composition Classroom." *Portfolios: Process and Product.* Ed. Pat Belanoff and Marcia Dickson. Portsmouth: Heinemann, 1991. 153-164. Print.

"Studies Documenting Regression in Learning to Write." *CompFAQs.* 19 Jan 2006. http://compfaqs.org/Regression/Bibliography 2 Sept 2011. Online.

White, Edward M. *Assigning, Responding, Evaluating: A Writing Teacher's Guide*. 4th ed. Boston: St. Martin's, 2007. Print.

---. *Teaching and Assessing Writing*. 2nd ed. Portland, ME: Calendar Islands, 1994. Print.

Yancey, Kathleen Blake. *Reflection in the Writing Classroom*. Logan: Utah State UP, 1998. Print.

APPENDIX A: COLLEGE COMPOSITION'S PORTFOLIO SYSTEM

INITIAL PLANNING

College Composition's portfolio system was developed in Fall 2008 by the Composition Steering Committee, a volunteer group of faculty who advise me on programmatic matters. The committee members who helped in this work were Sally Chandler, Maria Montaperto, Sara Chmielewski, Johanna Church, and Tara Branch.

Students include the following assignments in their portfolio:

- one assignment that requires students to summarize and respond to a text.
- a persuasive/argumentative essay which asks students to take a specific position on a subject and attempt to persuade readers that position is valid. The following process material for this essay must be included in the portfolio:
    - planning work (ex. brainstorming, freewriting, listing)
    - at least one rough draft, preferably with instructor comments
    - a final, unmarked draft
- an analytic essay which identifies the elements within a text and describes the relationships among those elements. Text, here, is broadly defined as any aspect of culture that can be interpreted. The following process material for this essay must be included in the portfolio:
    - planning work (ex. brainstorming, freewriting, listing)
    - at least one rough draft, preferably with instructor comments
    - a final, unmarked draft
- an in-class argumentative essay written under test conditions. All students respond to the same prompt.
- a letter, addressed to the College Composition Coordinator, that introduces the portfolio. In this letter, students reflect on what they learned in the course and explain how the portfolio demonstrates that learning.

Faculty can adjust the exact requirements of portfolio assignments, as long as they stay within the program's genre definitions. Some professors, for example, may require students to analyze advertisements, while others may require textual analyses. Either of these assignments, as well as myriad others, would meet the requirements of an analysis. Faculty may also require assignments in their courses that are not included in the portfolio.

PILOT: SPRING AND SUMMER 2009

During Spring 2009, the program piloted the portfolio system described above. Faculty were given the option of having students prepare either a print or an electronic portfolio. All portfolios were submitted to me after the semester ended.

During Summer 2009, Sally Chandler, Maria Montaperto, and I reviewed a random sample of portfolios to refine the scoring rubrics needed for program assessment. This approach follows best practice. Liz Hamp-Lyons and William Condon argue that "the criteria [for portfolio assessment should be] grounded in the curriculum of the course in

which the portfolio is produced" (326). Drs. Chandler, Montaperto, and I also developed plans for helping faculty teach in ways meant to produce strong student portfolios.

FULL IMPLEMENTATION: FALL 2009

Starting Fall 2009, all portfolios were created using Google Sites. Faculty were trained in this software during the August orientation and during October follow-up sessions. By the end of Spring 2010, over 1000 College Composition students had created portfolios.

RESULTS OF 2010 PORTFOLIO READING

Writing by students in ENG 1030 improved from the diagnostic to the portfolio in almost all rubric criteria. The results for ENG 1031/1032 and 1033/1034 are more varied, though students showed growth in some rubric criteria. The results for the A-TEAM courses showed some promising results, though the sample sizes of some groups are too small to allow for statistical analysis. Closing the loop activities included the creation of a required course calendar, plans to work on improving the teaching of analytical writing, and suggestions for future professional development events.

RESULTS OF 2011 PORTFOLIO READING

Lamont Rouse analyzed the results of the portfolio reading, comparing it to the baseline rubrics. He did not find any significant differences between the sets of scores. The attitude surveys, by contrast, show that students felt they became stronger writers through their work in the course. Combined, these results imply students benefited from their time in the course.

Research in Writing Studies has shown that expecting significant gains through one course is illogical. Learning to write is a developmental process that extends throughout a student's college career (Haswell "Beyond"; Haswell "Documenting"). In addition, research has shown that people's writing ability can seem to regress when they enter an unfamiliar rhetorical situation. In his well-respected book on teaching writing across the curriculum, John Bean states that "since each new course immerses students in new, unfamiliar ideas, the quality of students' writing, predictably, degenerates" (64). Once students become more familiar with the situation, whether through writing multiple drafts or through other experiences, their writing returns to its previous levels (Carroll; Haswell "Error"; Mayer; "Studies").

College Composition is one of the transitional spaces Bean describes, the first course students take as freshmen at Kean. As a result, it is best seen as a baseline. It provides the University with a sense of how students can write at the beginning of their time here. The data currently being gathered from the capstone courses will provide the best view of how well our institution teaches students how to write.

Closing the loop activities at the 2011 reading included revising the program rubric. Our work was later adopted as the University Writing Rubric.

RESULTS OF 2012 PORTFOLIO READING

Students in all versions of the course showed improvement in their writing ability, as represented by the University Writing Rubric. Students in ENG 1031/1033 showed the most gains. In addition, we assessed students' ability to integrate outside sources into their work and their awareness of different cultures. The results for these categories are inconclusive due to the low amount of agreement among readers; more analysis is needed.

Closing the loop activities included the creation of universal prompts for the reflective introduction, an increased emphasis on teaching revision and integrating sources, and two discussions on how to best assess Composition students' intercultural awareness.

APPENDIX B: SCORING SHEET FOR PORTFOLIO READING

Portfolio Code: _____

Reader: _____

Section A: Overall Quality

Rank the overall quality of the portfolio on each criteria below. Use a 1-5 scale, with 1 being the lowest. Refer to the rubric descriptors for a specific description of each criterion.

If the portfolio includes only final drafts, a "0" should be recorded in the "Revision" category. Do not use a "0" if the portfolio contains rough drafts or any kind of planning work (even one example).

Criteria	Score
Genre/Audience	
Focus	
Development	
Organization	
Grammar/mechanics	
Revision (If the portfolio contains only final drafts, a "0" should be recorded in this category. Do not use a "0" is the portfolio contains rough drafts or any kind of planning work, even one example.)	

Consider the quality of reflective materials in the portfolio, emphasizing the reflective introduction. How effectively does the student reflect on their work? Indicate their level of skill by placing a check mark next to one of the following choices:

_____ Exceeds program expectations

_____ Meets program expectations

_____ Does not meet program expectations

_____ No evidence; does not include reflective introduction

APPENDIX C: RUBRIC DESCRIPTORS

This document contains an expanded explanation of the criteria making up the baseline and portfolio evaluation rubrics for College Composition (revised Summer 2011). Each criterion is briefly defined and linked to common terms used for it in composition textbooks. Characteristics of each level in a criterion are also included.

I would like to thank the 2011 portfolio readers for their help with revising this rubric: Tara Branch, Lisa Canino-Dymbort, Sally Chandler, Diane Danielle, Troy Diana, Sarah Ghoshal, Shannon Harry, Eloise Jacobs-Brunner, Steven Lillis, Leonard Naturman, Michael Rizza, Lisa Sisler, Christa Verem, Rachael Warmington, Tim Wenzell

Genre/Audience: The writing demonstrates an understanding of the conventions of the genres they are writing as well as for academic writing in general.
Terms related to this criterion: conventions, community of readers, discourse community, genre, style, tone

- Score of 5: the writer follows all or almost all of the conventions for the genre and academic writing in general. In addition, the writer demonstrates a skillful ability to manipulate those conventions in ways that make their work stand out while still fulfilling the reader's expectations.
- Score of 4: the writer follows most, if not all, of the conventions for the genre and academic writing in general. There is evidence of effort made to manipulate those conventions in ways that make their work stand out while still fulfilling the reader's expectations. However, those efforts are not as skillful as a level-five essay.
- Score of 3: the writer follows most of the conventions. However, they do so in a formulaic way that shows little attempt to engage the audience.
- Score of 2: the writer follows most of the conventions but does not do so consistently. They may also not follow some conventions, but the reader gets the sense the writer understands the conventions.
- Score of 1: the writer fails to follow most or any of the genre conventions and of academic writing in general.

Focus: The writing presents a unified, clear stance with respect to the characteristics of the assignment. In a given essay, each paragraph relates to that stance.
Terms related to this criterion: main idea, purpose, stance, thesis statement

- Score of 5: explicit, nuanced stance. The reader feels like the writer has constructed a complex, well thought-out point.
- Score of 4: stance is explicit and/or nuanced, but not to the degree of a five. The reader may feel like some minor points are missing or that the stance could be more complex.
- Score of 3: stance somewhat clear, but may be defined in general terms (i.e. "subject A and B are a like in some ways and different in others" or "I agree/disagree with X" without giving reasons for their stance)
- Score of 2: vague stance or purpose. It may only apply to part of the piece.
- Score of 1: no clear stance or purpose.

Development: The main ideas in the writing are supported with specific, relevant information.
Terms related to this criterion: details, evidence, examples, facts, observations, statistics, testimony

- Score of 5: all ideas are developed with specific, relevant information that clarifies, extends, and illustrates the essay's focus. The reader feels like she or he has learned a lot from reading the piece.
- Score of 4: all major and most minor ideas are developed with specific, relevant information that clarifies, extends, and illustrates the essay's focus. However, the reader occasionally raises questions or wishes for more information.
- Score of 3: ideas are not developed consistently, causing the reader to want more information about some points. Ideas, in places, are clear or made up of vague or commonplace generalizations. Some examples may not be appropriate.
- Score of 2: most ideas are not developed or are supported with inappropriate examples. The support is made up almost entirely unclear or made up of vague or commonplace generalizations. Overall, the piece seems to have been written quickly and without the writer thinking through the ideas he or she wanted to convey.
- Score of 1: ideas are stated without any development at all.

Organization: The writing uses an overall and paragraph structures appropriate to the assignment(s).
Terms related to this criterion: coherence, cohesion, mode, patterns of development, structure, transitions

- Score of 5: the writer uses a logical order for both paragraphs and the overall pieces that imparts a feeling of wholeness and skill.
- Score of 4: the writer uses a logical order for both paragraphs and the overall piece that is effective but that may not be artful. Some slight breakdowns exist, but they are almost unnoticeable and seem more like isolated gaffes than patterns of error.
- Score of 3: the structure of the essay breaks down in some places, but holds together overall. At the paragraph level, some sentences are out of place. Some transitions between sentences are abrupt or inappropriate for the kind of relationships implied among the paragraphs ideas.
- Score of 2: the structure of the essay feels rough and unclear. At the paragraph level, multiple sentences are out of place. Most of the transitions between sentences are abrupt or inappropriate for the kind of relationships implied by the paragraph's ideas. The pieces seems to have been planned quickly and not revised.
- Score of 1: the writer uses an unclear or confusing overall organization. The paragraphs lack coherence; sentences are disorganized, with little or no effective use of transitions.

Grammar/Mechanics: the essay follows the conventions of Edited Academic English. This includes conventions for citing sources, regardless of the system used. An essay does not have to be perfect to receive a score of 5 in this criteria. Instead, consider whether the errors would either distract an average reader or make them doubt the writer's credibility.
Terms related to this criterion: diction/word choice, documentation, punctuation, sentence boundaries, sentence structure, spelling

- Score of 5: errors do not detract from the essay's central focus and from the smooth delivery of the writer's ideas. Few or no errors exist, and those that appear are minor or reflect obscure rules.
- Score of 4: errors are obvious but not to the point of distracting an average reader.
- Score of 3: grammatical, mechanical, spelling, and documentation errors begin to interfere with understanding the text's meaning. Patterns of status-marking error may exist (ex. sentence boundaries, verb endings).
- Score of 2: several distracting grammatical, mechanical, spelling, and documentation errors make understanding the text's meaning difficult. Multiple patterns of error exist.
- Score of 1: numerous distracting grammatical, mechanical, spelling, and documentation errors make understanding the text's meaning difficult or impossible.

Revision: the writer made changes between drafts to the essay's focus, organization, development, and/or style that lead to a more successful final essay. These changes can take place at any level of the text (overall, paragraph, or sentence). Invention and planning work used to create a rough draft counts as evidence of revision.
Terms related to this criterion: addition, deletion, substitution, and rearrangement. (Note: The last two are not done as often, even when they are needed.)

- Score of 5: almost all of the revisions make the final draft stronger than the original. The writer used all four forms of revision as appropriate.
- Score of 4: Most, but not all, of the revisions make the final draft stronger than the original. The writer used most of the forms of revision, but may have needed to use others. (ex. the added and deleted material, but should have also rearranged it).
- Score of 3: the draft includes some revisions that make the final draft stronger, but others are needed. The writer mostly used addition and deletion, even if substitution and rearrangement was also needed. Some of the revisions may distract from the draft's quality.
- Score of 2: The draft includes few revisions, most of which have no influence on the final draft's quality. The writer may have used only one form of revision even though others are needed.
- Score of 1: the draft includes very few revisions; most either have no influence on the final draft's quality or make it worse. It seems like the writer just retyped the original draft.
- Score of 0: no evidence of revision. The writer turned in only one draft and no invention/planning work.

APPENDIX D: UNAGGREGATED DATA FOR OVERALL WRITING QUALITY

Table 6: ENG 1030 (n for pre-score=700; n for post-score=90)

Criteria	Pre-score	Post-score	Pre-score	Post-score	Pre-score	Post-score	Pre-score	Post-score	Pre-score	Post-score	Pre-score	Post-score
	5		4		3		2		1		0	
Genre/Audience	8.00%	3.33%	25.29%	30.00%	47.00%	54.44%	15.71%	11.11%	1.71%	11.11%		
Focus	9.00%	1.11%	29.29%	41.11%	45.57%	52.22%	14.71%	4.44%	1.43%	1.11%		
Development	6.57%	1.11%	24.29%	27.78%	44.43%	61.11%	21.86%	7.78%	2.86%	2.22%		
Organization	8.71%	1.11%	26.43%	35.56%	50.14%	53.33%	17.71%	10.00%	3.14%	0.00%		
Grammar/Mechanics	12.71%	16.67%	35.43%	56.67%	38.00%	21.11%	11.57%	5.56%	2.14%	0.00%		
Revision	5.14%	1.11%	19.43%	20.00%	29.86%	37.78%	29.00%	30.00%	11.57%	3.33%	2.20%	7.78%

Table 7: ENG 1031/1032 (n for pre-score=237; n for post-score=30)

Criteria	Pre-score	Post-score	Pre-score	Post-score	Pre-score	Post-score	Pre-score	Post-score	Pre-score	Post-score	Pre-score	Post-score
	5		4		3		2		1		0	
Genre/Audience	2.95%	3.33%	27.00%	30.00%	45.99%	43.33%	21.10%	20.00%	3.38%	3.33%		
Focus	2.53%	0.00%	24.47%	36.67%	47.68%	46.67%	23.21%	13.33%	2.53%	3.33%		
Development	1.69%	0.00%	21.52%	46.67%	40.51%	36.67%	32.49%	13.33%	3.80%	3.33%		
Organization	2.53%	0.00%	19.83%	33.33%	41.35%	46.67%	31.65%	16.67%	4.64%	3.33%		
Grammar/Mechanics	4.22%	13.33%	25.32%	60.00%	42.62%	20.00%	22.36%	6.67%	5.91%	0.00%		
Revision	1.27%	0.00%	8.86%	23.33%	38.40%	43.33%	32.07%	23.33%	15.19%	3.33%	2.50%	6.67%

GES1: Write to communicate and clarify learning - Intermediate

Research and Technology GE202x

Semester: FALL 2013 REPORT DATE: 1/8/2014

Research and Technology is a required General Education foundation course that introduces students to research design and methodology as well as to disciplinary and interdisciplinary perspectives of the research process. The course is geared toward second-semester freshman and sophomores, although students from all levels are represented. Students take Research and Technology after English Composition and before Capstone. As student writing is assessed at the introductory level in English Composition and the advanced level in Capstone, Research and Technology has been designated as the intermediate level.

Measurement

Writing in Research and Technology courses is assessed using the students' final research papers and the Standard Kean University Writing Rubric. The paper is a minimum of 15 typed pages and contains the students' original research on their topics. Each paper must contain an abstract, a statement of the research problem, an introduction, a literature review, a description of the method (including specification of participants, materials, and procedures), a description of results and findings, a discussion of the findings (including limitations and recommendations for future research) and a properly formatted reference page. The papers must also have properly formatted citations and adhere to the rules of Standard English grammar, spelling, and punctuation. Students are required to submit various parts of the paper throughout the semester as well as a rough draft prior to their final paper.

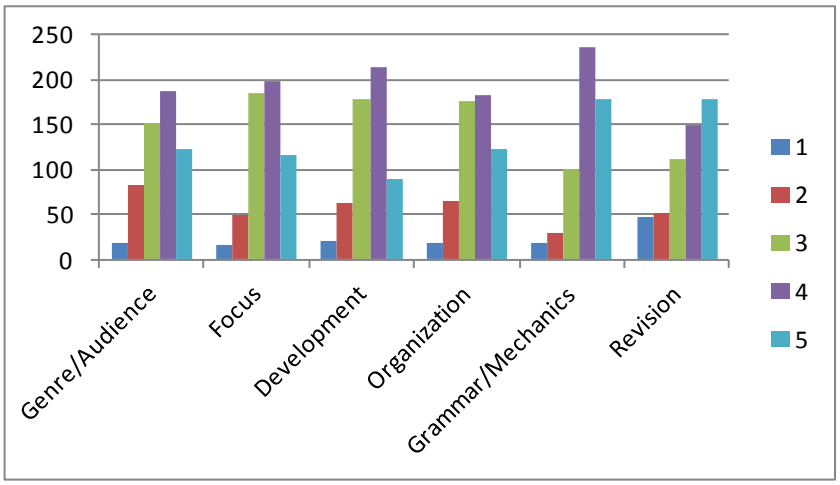
The Standard Kean University Writing Rubric was developed by faculty from Kean's Composition Program (see attached rubric). This rubric uses a five-point Likert scale to evaluate students' writing on genre/audience, focus, development, organization, grammar/mechanics, and revision. Since Research and Technology is considered an intermediate level course, students are expected to achieve scores of 3 or higher in each category of the rubric. As an intermediate course, the percentage of students expected to achieve this passing level was established at 80%.

Using the Standard Kean University Writing Rubric, the writing of 581 students across all 29 sections of Research and Technology were analyzed to assess students' progress in writing.

Number of students: 581
Number of sections: 29

Mean scores overall:

Genre/Audience	3.6
Focus	3.6
Development	3.5
Organization	3.6
Grammar/Mechanics	3.9
Revision	3.5

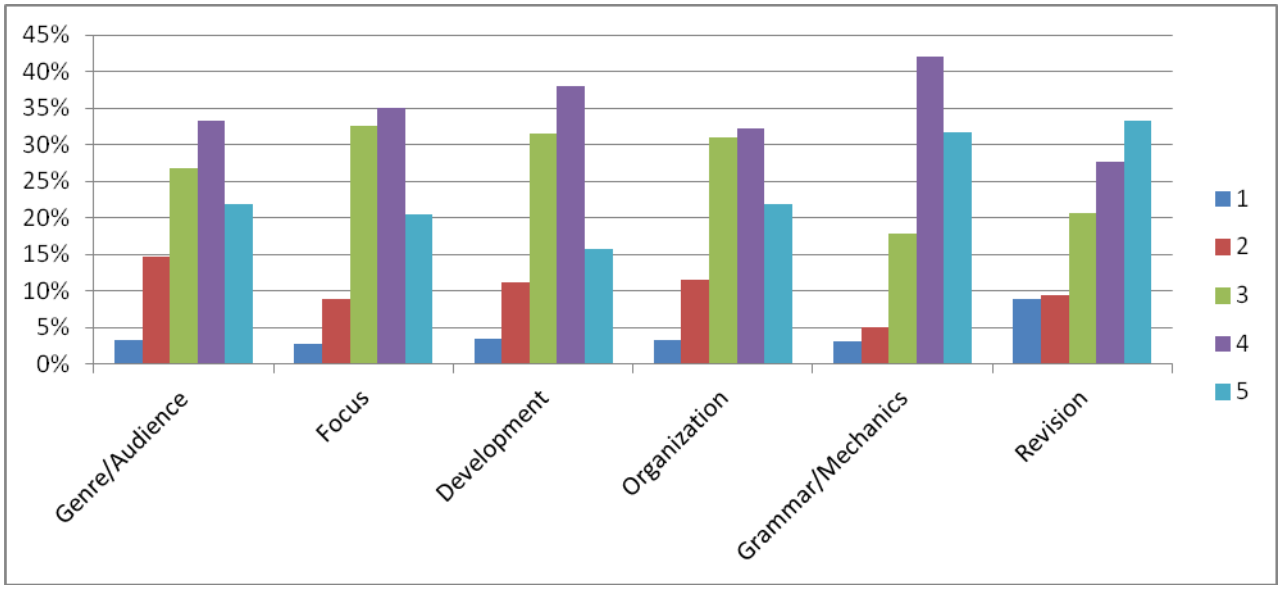


Distribution of Scores:

Frequency by score

	Genre/ Audience	Focus	Development	Organization	Grammar/ Mechanics	Revision
1	19	16	20	19	18	48
2	83	50	63	65	29	51
3	151	184	178	175	101	111
4	188	198	214	182	237	149
5	123	116	89	123	179	179
Total	564	564	564	564	564	538

Level	Genre/ Audience	Focus	Development	Organization	Grammar/ Mechanics	Revision
1	3%	3%	4%	3%	3%	9%
2	15%	9%	11%	12%	5%	9%
3	27%	33%	32%	31%	18%	21%
4	33%	35%	38%	32%	42%	28%
5	22%	21%	16%	22%	32%	33%
Total	100%	100%	100%	100%	100%	100%
Level 1-2	18%	12%	15%	15%	8%	18%
Level 3-5 (Passing)	82%	88%	85%	85%	92%	82%



Discussion/Action/Closing the Loop:

Reviewing the data, overall mean scores average between 3.5 and 3.6 in genre/audience, focus, development, organization, and revision. The mean score for grammar and mechanics is the highest at 3.9. Ninety-two of the students met the 3-5 passing level for grammar and mechanics. This indicates that in this area, students' papers, though not error-free, did not reveal errors that are distracting or that impede meaning. In terms of focus, 88% of students met the 3-5 target, showing they are developing general and/or explicit and nuanced stances in their research papers. On the criterion of organization, the vast majority of students (85%) met the 3-5 target level. This means that students' writing is organized with an overall solid structure. In genre/audience, 82% of students achieved score levels of 3-5. This indicates they are using genre/audience in either a formulaic or more advanced way. Eighty-two percent of students also achieved level 3-5 in revision, revealing that some to all of these students made revisions improved their drafts.

Overall, writing scores were strong, though not as high in genre/audience and revision as they were in focus, development, organization, and grammar/mechanics. The percentage of students who failed to pass the expected level of 3 or higher was 18% in both genre/audience and revision indicating that this portion of students is not using conventions of genre/audience appropriately and not revising their papers as well as they could be. That said, as an intermediate level course, a skillful demonstration of genre/audience is not yet expected. It bears mention that research is a genre that many of these students have never encountered before. In the area of revision, students are expected to continue to strive to make revisions that improve the quality of their work.

With the above in mind, professors will continue to work with students to have them achieve passing levels in the aforementioned areas with special attention given to genre/audience and revision. Professors will emphasize conventions of genre/audience and meet in March 2014 to discuss curricular/pedagogical adaptations or changes and to design specific additional assignments to help students better understand genre/audience for research. Professors will also put renewed emphasis on the importance of revision and take steps to teach students how to revise properly to improve their work. Professors will meet in March 2014 to discuss curricular/pedagogical adaptations or changes to help students improve their revision skills. Specific assignments and requirements, such as having students highlight, explain, and submit all revisions, will be discussed at said meeting.

GE Writing Rubric Descriptors for Rubric: Condensed

	5	4	3	2	1	0
Genre/ Audience	Uses conventions in skillful way	Uses conventions in a somewhat skillful way	Uses conventions in formulaic way	Does not follow conventions consistently	Fails to follow most or any conventions	Not applicable
Focus	Explicit, nuanced, complex stance	Explicit and nuanced, but not complex, stance	Stance defined in general terms	Vague stance	No clear stance	Not applicable
Development	All ideas developed with specific, relevant information	Most ideas developed with specific, relevant information. Reader raise few questions	Ideas not developed consistently. Supported with vague generalization or inappropriate examples	Most ideas not developed or supported with inappropriate examples	Ideas stated, not developed	Not applicable
Organization	Structure imparts feeling of wholeness and skill	Structure imparts a feeling of wholeness but not skill	Structure breaks down in some places, though solid overall	Structure feels rough or unclear	Structure clear or confusing	Not applicable
Grammar/ Mechanics	Few or no errors exist; those present have no effect on reading	Errors obvious but not distracting	Errors begin with interfere with reading	Several distracting errors or multiple patterns of error	Numerous errors make understanding text difficult or impossible	Not applicable
Revision	Almost all revisions make draft stronger	Most revisions make draft stronger.	Some revisions strengthen, but some weaken draft	Few revisions, with little effect on quality	Very few revisions; may make final worse	No evidence of revision

GES1: Write to communicate and clarify learning

CAPSTONE COURSES

Semester: FALL 2013

REPORT DATE: 1/8/2014

Writing in capstone courses is assessed based on the student's final presentation using the Standard Writing Rubric used by Kean University. Student work samples vary by course and subject.

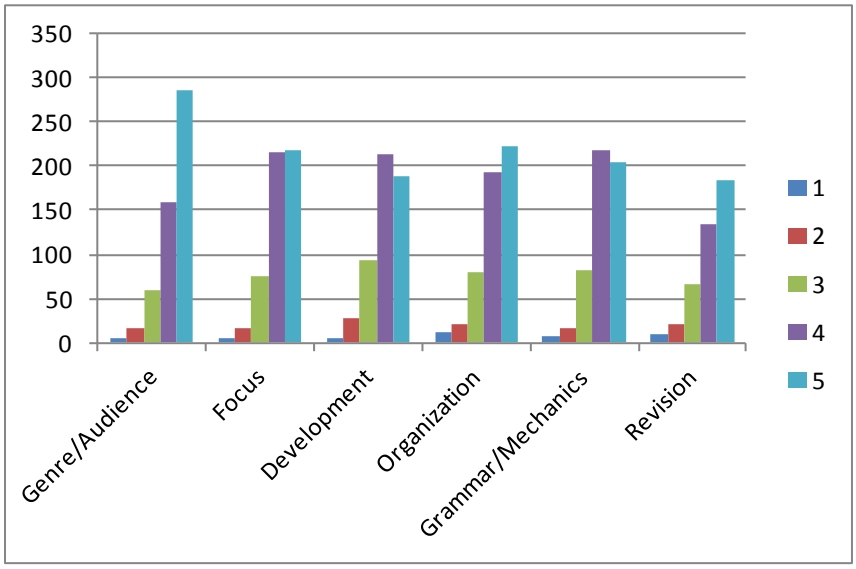
Number of Students: 527

Number of Sections: 38

Mean scores overall:

Genre/ audience	4.3
Focus	4.2
Development	4.1
Organization	4.1
Grammar/ mechanics	4.1
Revision	4.0

Distribution of Scores

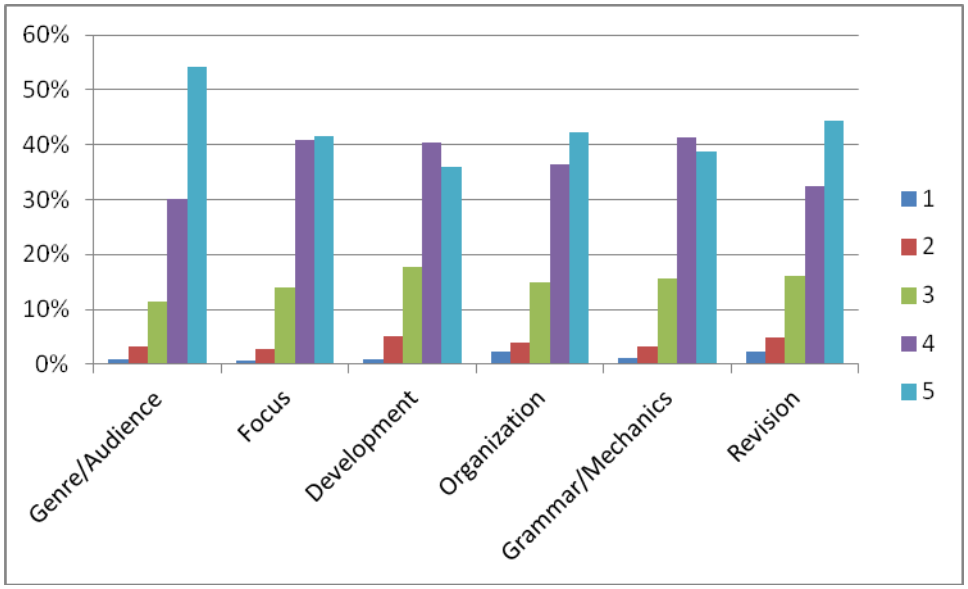


Frequency by score

	Genre/Audience	Focus	Development	Organization	Grammar/Mechanics	Revision
1	5	4	5	12	6	10
2	17	15	27	21	17	20
3	60	74	93	79	82	67
4	159	215	213	192	218	135
5	286	219	189	223	204	185
Total	527	527	527	527	527	417

Percentages by Score

	Genre/Audience	Focus	Development	Organization	Grammar/Mechanics	Revision
1	1%	1%	1%	2%	1%	2%
2	3%	3%	5%	4%	3%	5%
3	11%	14%	18%	15%	16%	16%
4	30%	41%	40%	36%	41%	32%
5	54%	42%	36%	42%	39%	44%



Analysis

550 senior students enrolled in 39 capstone course sections were assessed against the 5-level Written Communications Rubric designed by the School of General Studies. Students were assessed on six dimensions: Genre/Audience, Focus, Development, Organization, Grammar/Mechanics, and Revision. It is expected that students will reach level 4 or higher at this stage in their college career. The results indicate that the strengths of seniors at Kean are Genre/Audience (Using conventions in a skillful way, 84% at level 4-5) and Focus (Explicit, nuanced, complex stance, 83% at level 4-5) while they are slightly lower on Development, Organization and Revision (76%-78% at level 4-5). All six dimensions are significantly correlated ($P<.001$), which suggest that students need to be introduced to written practice that comprehensively improve their written communication skills. There are still 15%-24% of the seniors who failed to meet the expectations (level 4), thus suggesting that improvement in teaching and instruction is needed to address the common issues of these students who need help more than others in writing. Teachers need to refine the teaching strategies to help students to form structures in their writing that impart wholeness and skill. Additionally, students should be given instructions on how to correct mistakes and improve their writing by revision.

Discussion/Action/Closing the Loop:

Norming the Standard Writing Rubric at the capstone level among faculty within individual majors and across departments would obviously be helpful in establishing a framework for scoring as well as teaching these concepts. As well, discussing and norming across levels (ENG 103X, GE202X, CAPSTONE) can only improve teaching and student learning. But even without horizontal norming, we should consider these results given the significant correlation across the six dimensions for an important percentage of our seniors. We are offering them to the Director of the Academic Writing Center, asking her to create a strategy for additional writing support for our seniors, special support to Capstones who are assessing Composition and perhaps 'Composition for the Major' programming. A list of suggestions – potentially a Manual for Teaching Composition in the Capstone – should be forthcoming. Finally, we need to examine this SLO at the junior level too – the fourth point – to see where the skill 'gap' is occurring.

GE Writing Rubric (Descriptors for Rubric: Condensed)

	5	4	3	2	1	0
Genre/Audience	Uses conventions in skillful way	Uses conventions in a somewhat skillful way	Uses conventions in formulaic way	Does not follow conventions consistently	Fails to follow most or any conventions	Not applicable
Focus	Explicit, nuanced, complex stance	Explicit and nuanced, but not complex, stance	Stance defined in general terms	Vague stance	No clear stance	Not applicable
Development	All ideas developed with specific, relevant information	Most ideas developed with specific, relevant information. Reader raise few questions	Ideas not developed consistently. Supported with vague generalization or inappropriate examples	Most ideas not developed or supported with inappropriate examples	Ideas stated, not developed	Not applicable
Organization	Structure imparts feeling of wholeness and skill	Structure imparts a feeling of wholeness but not skill	Structure breaks down in some places, though solid overall	Structure feels rough or unclear	Structure clear or confusing	Not applicable
Grammar/Mechanics	Few or no errors exist; those present have no effect on reading	Errors obvious but not distracting	Errors begin with interfere with reading	Several distracting errors or multiple patterns of error	Numerous errors make understanding text difficult or impossible	Not applicable
Revision	Almost all revisions make draft stronger	Most revisions make draft stronger.	Some revisions strengthen, but some weaken draft	Few revisions, with little effect on quality	Very few revisions; may make final worse	No evidence of revision

Appendix Capstone Courses for S1 Written Communication Assessment

Course	Number of Students with valid results
MATH 4890 1	21
BIO 4970 1	21
BIO 4970 2	18
BIO 4970 4	14
COMM 4962 1	15
COMM 4962 2	16
COMM 4962 3	14
COMM 4962 5	14
DSN 4000 2	15
ENG 4800 1	11
ENG 4817 1	12
FA 4800 1	15
HIST 4990 01 02	24
HIST 4990 K1	14
MATH 4890 2	22
MGS 4999 3	17
MGS 4999 6	16
MGS 4999 K1	24
NURS 4900 1	10
NURS 4900 A2	10
NURS 4900 A3	13
PA 4000 1	18
PED 4610 K1	13
PSY 4940 1	6
PSY 4940 10	10
PSY 4940 11	11
PSY 4940 13	8
PSY 4940 2	9
PSY 4940 4	7
PSY 4940 6	9
PSY 4940 7	10
PSY 4940 8	12
PSY 4940 9	13
PSY 4940 K1	11
SOC 4600 1	14
SOC 4600 2	15
SPAN 4700 1	17
SPED 4200 K1	8
Grand Total	527

Overall Summary of GES1: Write to communicate and clarify learning

1/14/2014

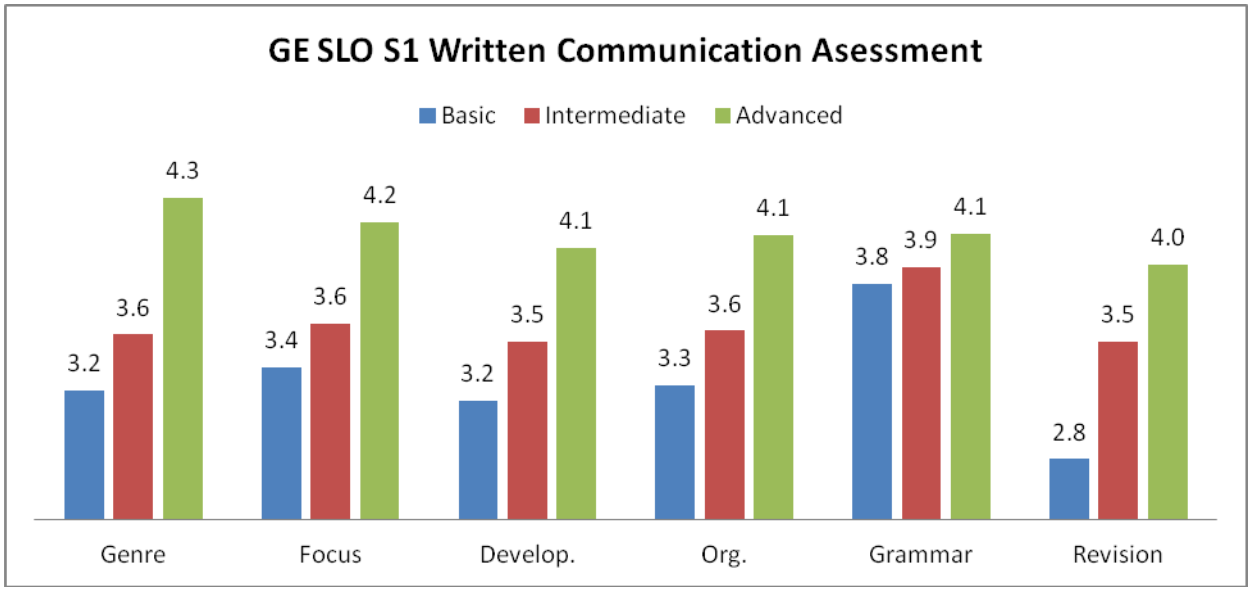
For Fall 2013, the Standard Kean University Writing rubric was used to assess writing for three courses: College Composition, Research and Technology, and Capstone courses, which respectively assess writing at the introductory, intermediate, and advanced level. For College Composition, the sample included 120 students (90 from ENG1030 post test and 30 from ENG1031 post test) from 60 different course sections from two types of courses, which are similar in all regards except in one course (EN 1031/32), students receive additional class time. Although the two composition courses were assessed separately, the difference between their scores is small and thus averaged in the following discussion. For Research and Technology, the sample included 541 students from 28 sections; and for Capstone courses, 558 students from 39 sections. The rubric uses a 1-5 scale and measures six categories in writing: genre/audience, focus, development, organization, grammar, and revision. Within these six categories, focus, development, and organization are considered high-order issues.

GE SLO S1 Written Communication Average Score						
Course/level	Genre	Focus	Develop.	Org.	Grammar	Revision
Basic	3.2	3.4	3.2	3.3	3.8	2.8
Intermediate	3.6	3.6	3.5	3.6	3.9	3.5
Advanced	4.3	4.2	4.1	4.1	4.1	4.0
Difference between Basic & Intermediate	0.32	0.25	0.33	0.31	0.10	0.67
Difference between Basic & advanced	1.10	0.83	0.87	0.86	0.29	1.11

Basic level ENG 1030/1031

Intermediate Level GE202x

Advanced Capstone



For each category, there was an improvement from one level to the next. From introductory to advanced, genre/audience increased from 3.2 to 4.3; focus from 3.4 to 4.2; development 3.2 to 4.1; organization from 3.3 to 4.1; grammar from 3.8 to 4.1; revision from 2.8 to 4. Thus, grammar, which is a small-order issue, started at higher level and has the least amount of improvement (.28), yet still remains high. Revision refers to substantive changes between drafts of student writing, in which material has been cut, added, moved, or substituted, rather than surface level changes, in which style, diction, syntax, or grammar has been changed without affecting the ideas that are being conveyed. Revision improved the most. In future assessments, the gap between introductory and advanced revision should possibly diminish (1.1), given that the GES1 report for composition indicates revision as an area needing improvement, and action has been taken to improve revision at this level: two workshops were recently offered to instructors on how to respond to student writing in ways that encourage substantive revision, and, secondly, instructors received hands-on training in electronic responding. Revision is the only category in which the greater portion of the increase occurred between introductory and intermediate level (0.67). This possibly indicates Research and Technology's recent emphasis on revision and/or the need for greater emphasis on revision in Composition.

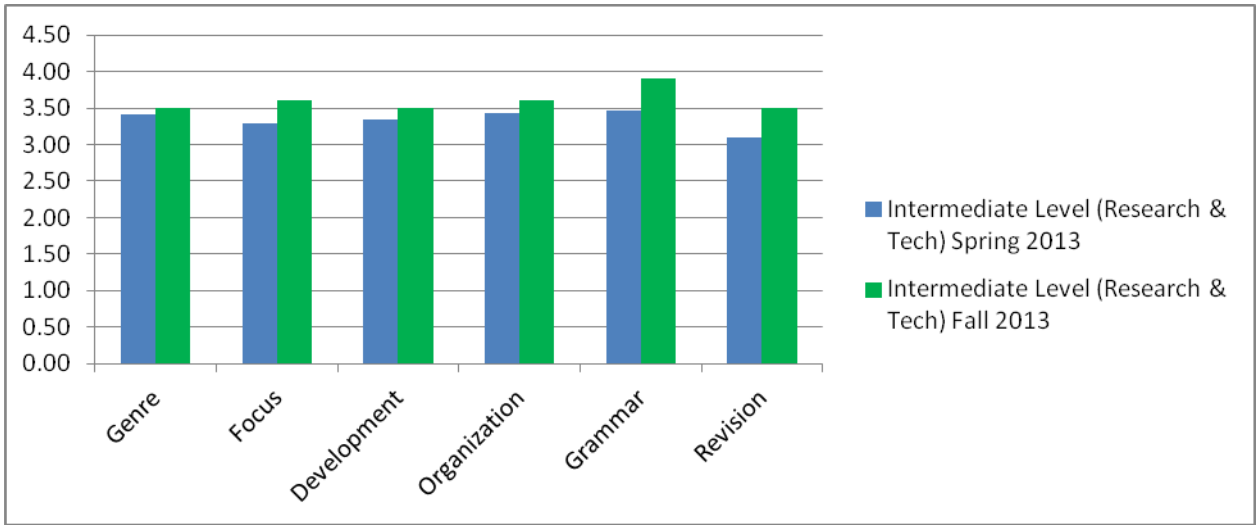
Furthermore, genre/audience also reveals a solid improvement. Yet the increase from introductory to intermediate (0.32) is smaller than the increase from intermediate to advanced (1.1). The larger increase possibly indicates that students have been working in their majors for multiple semesters, and thus learning genre/audience expectations in preparation for the capstone in their major. The smaller increase possibly reflects that Research and Technology provides an introduction to students writing in their particular major; thus, at this level, students are not yet familiar with genre/audience expectations. The high-order issues of focus, development, and organization all made similar improvements (approximately 0.9) from introductory to advanced level with the greater portion of the increase (.6) occurring between intermediate to advanced. To determine whether there is indeed a lag in increase between the introductory and intermediate level, perhaps a fourth point of assessment could be conducted between the intermediate and advanced levels or, rather, at the junior level.

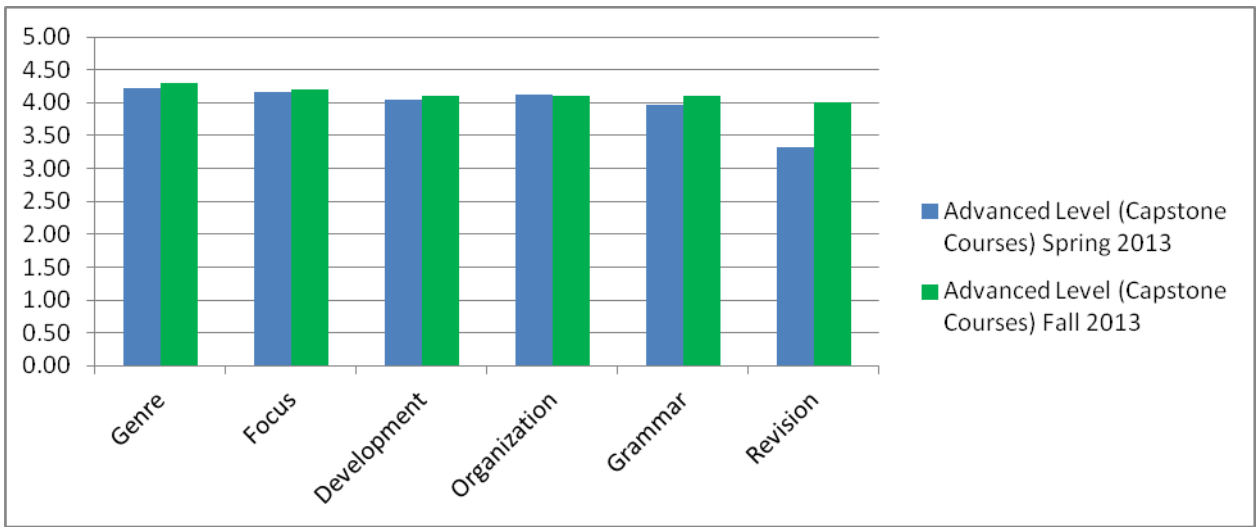
Overall, the assessment tells a positive story of improvement in every category. As a side note, however, this improvement could reflect the different make-up of students at the advanced level. Students at the introductory level may not have succeeded to the advanced level. Thus, individual tracking from introductory to advanced would provide a more accurate story of improvement.

Comparing present reports with earlier reports from Spring 2013 reveals longitudinal growth, as well as potential areas for instructional improvement. At both the intermediate and advanced levels, all categories increased from Fall 2012 to Spring 2013, except for organization at the Capstone level, which remained nearly the same in both semesters (4.1).

Criteria	Intermediate Level (Research & Tech) Spring 2013	Intermediate Level (Research & Tech) Fall 2013
Genre	3.41	3.50
Focus	3.29	3.60
Development	3.34	3.50
Organization	3.43	3.60
Grammar	3.46	3.90
Revision	3.10	3.50

Criteria	Advanced Level (Capstone Courses) Spring 2013	Advanced Level (Capstone Courses) Fall 2013
Genre	4.22	4.30
Focus	4.16	4.20
Development	4.04	4.10
Organization	4.12	4.10
Grammar	3.97	4.10
Revision	3.33	4.00





At the intermediate level, revision increased from 3.1 to 3.5. This .4 improvement was coupled with improvements of .44 in grammar and .31 in focus, while the other categories of genre/audience, development, and organization revealed small improvements, ranging from .04 to .17. This suggests that when students revised their writing, the revisions sharpened the focus and improved the grammar, but did little to improve the other categories. Thus, while one high-order issue (focus) improved, the two other high-order issues (development and organization) could be furthered emphasized during the revision process. One solution is that instructor comments or feedback on student papers could be targeted on these two high-order issues.

At the advanced level, revision improved solidly from 3.33 to 4.0. With this .67 increase in revision, one would expect to find increases in the other categories. However, the other categories revealed little to no change, ranging from 0 to .08. This data raises the question that if nothing improved, then what kinds of revision were made and how were they measured? In other words, despite increased revisions, students did not make substantial revisions that affected the focus, organization, or development of the essay. One possible explanation confirms the recommendation in the Fall 2012 Research and Technology report that instructors needed training in how to use the rubric. College composition already employs regular norming sessions. Additional norming would be useful at the intermediate and advanced levels. At the Capstone level, which is where the courses are more varied and possibly given to a greater likelihood of imbalanced scoring, training in the rubric across disciplines would ensure that writing is taught and measured in a consistent manner. Even so, the rubric needs to be flexible and adaptable to various disciplines. A norming session would provide Capstone faculty the opportunity to address how to make the rubric accommodate particular expectations and practices within the disciple.

Moreover, the fact that all categories except revision revealed negligible improvement indicates that instructor feedback of written work should target high-order issues. Given that Research and Technology also revealed limited growth in two of the three high-order issues, there needs to be additional training on how instructors could foster substantive revisions. At the Composition level, there is already in place regular training sessions every August on best practices regarding instructor feedback on student papers. These sessions could be extended to the intermediate and advanced levels.

SLO S2: COMMUNICATE EFFECTIVELY THROUGH SPEECH

COMM 1402

Semester: FALL 2013

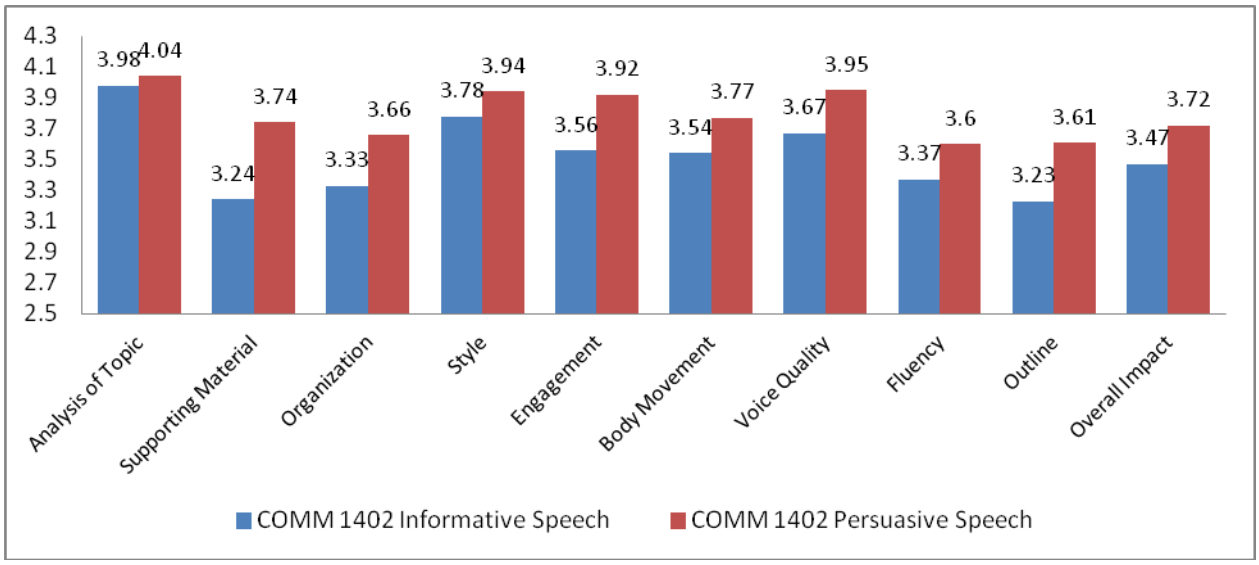
REPORT DATE: 1/9/2014

Each student in COMM 1402 is required to give two 7-minute speeches. One is informative and one is persuasive. Instructors evaluate these presentations according to the Speaker Evaluation rubric, created by the Communication Department, which analyzes each speech's content, delivery, preparation and overall impact. Each professor rated these key areas on a Likert-type scale of 1-5 with 1 being unacceptable and 5 being superior. The data was compiled for both speeches for 22 of 43 sections to evaluate the progress of the student in each area of assessment. In total, 482 evaluations for students who completed both speeches were analyzed. With a confidence level of 95%, a series of paired samples t-tests that assume equal variance were used to analyze the significance of the difference of means (two-tail) between the informative and the persuasive speeches.

Number of students: 482
Number of sections: 22

Mean Score Comparison

GE SLO S2 Oral Communication Fall 2013 Mean Scores										
	Analysis of Topic	Supporting Material	Organization	Style	Engagement	Body Movement	Voice Quality	Fluency	Outline	Overall Impact
COMM 1402 Informative Speech	3.98	3.24	3.33	3.78	3.56	3.54	3.67	3.37	3.23	3.47
COMM 1402 Persuasive Speech	4.04	3.74	3.66	3.94	3.92	3.77	3.95	3.6	3.61	3.72
Difference between Basic Informative and Basic persuasive	0.1	0.5	0.3	0.2	0.4	0.2	0.3	0.2	0.4	0.3



Paired Samples Test

		t	df	Sig. (2-tailed)
Pair 1	Analysis1 - Analysis2	-1.473	480	.141
Pair 2	Material1 - Material2	-9.101	480	.000
Pair 3	Organization1 - Organization2	-7.188	480	.000
Pair 4	Style1 - Style2	-4.504	480	.000
Pair 5	Engagement1 - Engagement2	-3.940	480	.000
Pair 6	Movement1 - Movement2	-6.008	480	.000
Pair 7	Voice1 - Voice2	-7.056	480	.000
Pair 8	Fluency1 - Impact2	-7.602	480	.000
Pair 9	Preparation1 - Preparation2	-6.368	480	.000
Pair 10	Impact1 - Impact2	-6.252	480	.000

Paired Samples Correlations

		Correlation	Sig.
Pair 1	Analysis1 & Analysis2	.414	.000
Pair 2	Material1 & Material2	.483	.000
Pair 3	Organization1 & Organization2	.460	.000
Pair 4	Style1 & Style2	.567	.000
Pair 5	Engagement1 & Engagement2	.309	.000
Pair 6	Movement1 & Movement2	.569	.000
Pair 7	Voice1 & Voice2	.570	.000
Pair 8	Fluency1 & Impact2	.419	.000
Pair 9	Preparation1 & Preparation2	.450	.000
Pair 10	Impact1 & Impact2	.523	.000

Analysis of Data

While the difference between the means for the informative speech and the persuasive speech show overall improvement, the following areas of improvement are highly significant (p=.000): Supporting material, Organization, Style, Engagement, Body movement, Voice quality, Fluency, Preparation, Overall impact. (See the attached report for more detailed analysis.)

The area of non-significant improvement is Topic Analysis (p=.141). (See the attached report for more detailed analysis.)

Significant correlations (P<.001) were found between the informative and persuasive speech on all 10 dimensions, with stronger correlation (>+0.5) on Style, Body movement, Voice quality and Overall impact. This result indicates a positive relationship between students' performed on informative speech and persuasive speech. Students' high score on informative speech is associated with a high score on the persuasive speech.

Discussion

For the Fall semester of 2013, we observe that students show significant to highly significant improvement in 9 of the 10 areas upon which they are evaluated.

We note that one area of significant improvement that changed from the spring semester of 2013 is the area of style (verbal communication). During the training session prior to the fall semester, we discussed the frequent lack of significance in the area of verbal communication. As a group, we decided to make a minor alteration in the rubric. The indicator "vivid terms" was changed to "uses metaphors and analogies." We also added an additional indicator to this area, "precise vocabulary." We note that now the difference in style is highly significant implying that the adjustments in the rubric allows for more precise measurement.

The area of non-significant improvement is that of topic analysis. This was surprising because this has always been an area of high significance in all previous measurements. This will need to be discussed in the training session in January 2014.

One possible explanation for the lack of significance could be due to a change in the data we were collecting. In addition to reporting scores for the 10 items of the rubric, this semester instructors were also asked to give the names of the topics. A column on the spreadsheet called "Topic" was created for this purpose. The purpose for tracking the topics is to determine the frequency of topics and also to check for possible plagiarism of speeches used in the past. The column "Topic" for nominal data was next to the column "Topic Analysis" used for interval data. While some instructors entered nominal data for "Topic," others inserted numbers indicating that they may have placed the scores of "Topic Analysis" in the "Topic" column. Obviously, the innovation was not clearly communicated to all instructors and the data entry was confused.

It should also be noted that all the other areas of high significance were extremely high with p = .000. This significant improvement could possibly be related to a change in textbook technology. During the Fall semester, a new textbook was adopted through McGraw-Hill. Their experts offered special training to our instructors on the textbook tool "LearnSmart." The tool uses quizzing and gaming strategies to encourage students to read and understand the concepts of the text. While not mandatory, a number

of instructors employed the technology in their instruction. This might, in part, explain the more significant improvement between the two speeches.

Action/Closing the Loop

1. Continue to use the newly adopted textbook.
2. Promote increased use of “LearnSmart” instructional technology by all instructors.
3. With regard to the confusion in data entry regarding “Topic” and “Topic Analysis,” instructors should receive clearer instructions in subsequent training sessions.
4. Training of all COMM 1402 instructors on new pedagogies needs to continue to be a priority in General Education.

SLO S2: Communicate Effectively Through Speech – Intermediate GE202x

Semester: FALL 2013

REPORT DATE: 1/8/2014

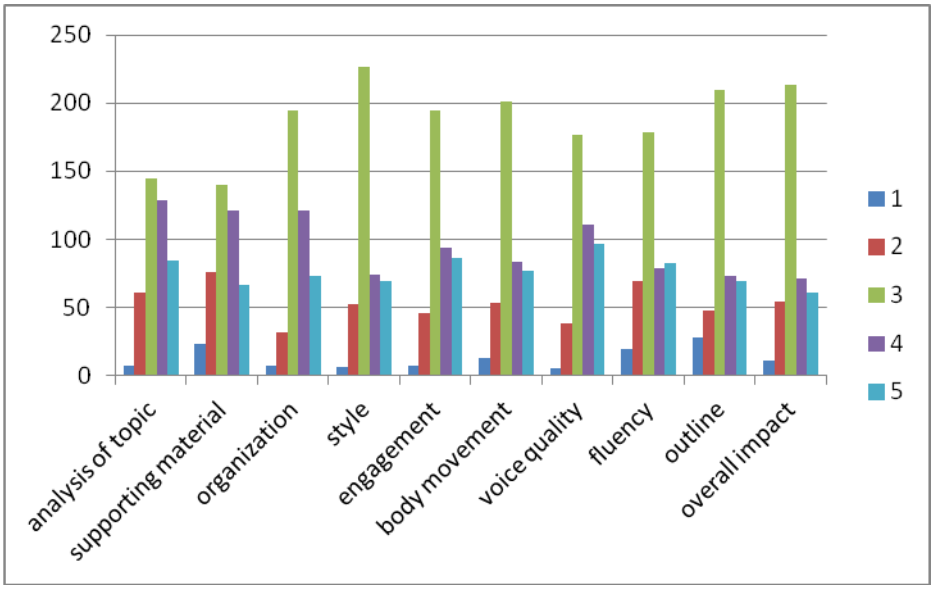
Effective Speech Communication is assessed at the intermediate level in GE 202x: Research and Technology. As evidenced in the School of General Studies Action & Assessment Plan (Monitoring Report - Appendix 12.7, p. 14), this learning outcome is first introduced in COMM 1402: Speech Communication (GE Foundation Course). It is then reinforced in this course where students build on speech communication skills previously acquired.

In Research and Technology, this learning outcome is assessed based on the student's final oral presentation using the Speaker Evaluation rubric created by the Kean University Communications Department (see Appendix A of this report). The rubric consists of 10 criteria and student performance is rated on a five point scale (5 = excellent). A score of 3 or higher indicates that students have either met or exceeded expectations at this intermediate level. Since this is an intermediate level course, the expectation was that 80% of students would achieve a score of 3 or higher on each criterion.

The oral presentation assignment (15% of student's final grade) asks students to present their research papers, and while most students choose to use a Power Point, that medium is optional.

Number of students: 438
Number of courses: 8
Number of sections: 22

Distribution of Scores



Mean scores overall:

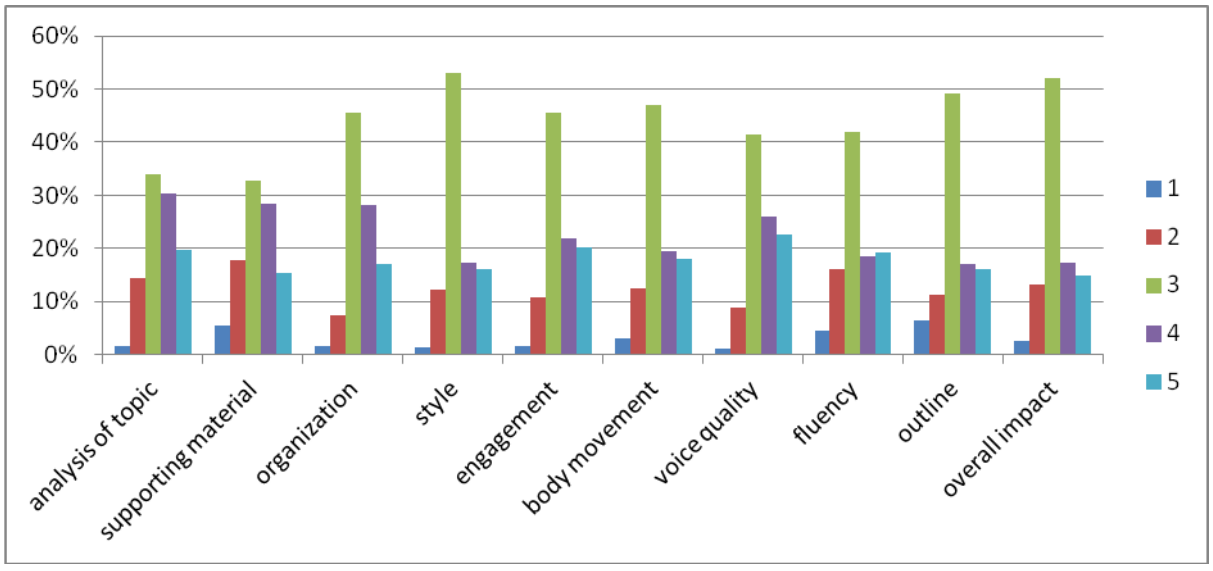
Analysis of Topic	3.5
Supporting Material	3.3
Organization	3.5
Style	3.3
Engagement	3.4
Body Movement	3.3
Voice Quality	3.6
Fluency	3.3
Outline	3.2
Overall Impact	3.2

Distribution of Scores:

	analysis of topic	supporting material	organization	style	engagement	body movement	voice quality	fluency	outline	overall impact
1	7	23	7	6	7	13	5	19	28	11
2	61	76	32	52	46	53	38	69	48	54
3	145	140	195	227	195	201	177	179	210	213
4	129	121	121	74	94	83	111	79	73	71
5	84	66	73	69	86	77	97	82	69	61
total	426	426	428	428	428	427	428	428	428	410

Frequency by Percentage

	analysis of topic	supporting material	organization	style	engagement	body movement	voice quality	fluency	outline	overall impact
1	2%	5%	2%	1%	2%	3%	1%	4%	7%	3%
2	14%	18%	7%	12%	11%	12%	9%	16%	11%	13%
3	34%	33%	46%	53%	46%	47%	41%	42%	49%	52%
4	30%	28%	28%	17%	22%	19%	26%	18%	17%	17%
5	20%	15%	17%	16%	20%	18%	23%	19%	16%	15%
≥3	84%	76%	91%	86%	88%	84%	90%	79%	82%	84%



Discussion/Action/Closing the Loop:

The data indicates that a mean score of 3 or higher for each criterion was achieved. With respect to the established target of 80% of students achieving a 3 or higher in each criterion, the results indicate that in 8 out 10 criteria, this target was reached. The two criteria that fell below this target were "supporting material" (76%) and "fluency" (79%).

Although these two areas were close in range to the target (1 to 4% below), it is worth further exploration to determine ways to improve on these communication components.

Implementing a mini-presentation along with the first draft of the paper, with audience (student) feedback, will be a useful step in the process in the formative assessment of students' ability to utilize supporting material and communicate with fluency. Research and Technology colleagues will meet in March 2014 to develop additional activities that target these weak areas.

Appendix A: Speaker Evaluation rubric created by the Kean University Communications Department

Speaker Evaluation Form

Name of Speaker _____ Section _____

Student ID _____ Speech (1or 2)_____

Key: 1=Unacceptable 2=Fair 3= OK/acceptable 4=good/above average 5=excellent

Rating	Item	☑ =Postive,Effective 0=Needs Work	Comments
Content			
	Analysis of Topic	__Clear Purpose __Multi-sided argumentation __Clear central ideas __ Relevant topic	
	Supporting Material	__Credible Sources __Varied Sources __Cited Sources __Sufficient Sources __Appropriate visual aid	
	Organization	__Introduction __Transitions __Main Points Clear	

		__Conclusion	
	Style	__Defined terms __Grammar ___Vivid Terms __Avoids clichés, jargon	
Delivery			
	Engagement	__Audience Awareness __Poise __Eye Contact __Manages Anxiety	
	Body Movement	__Posture __Facial Expression __Gestures	
	Voice Quality	__Volume __Extemporaneous ___Tone __Articulation ___Variety __Vocal Control	
	Fluency	__Freedom from notes __Effective pace __Avoids vocal filters __Effective use of Pauses __Effective rate	
Preparation			
	Outline	__Structure __Bibliography __Annotation	
Impact			
	OVERALL IMPACT	_Speaker is credible __Speech is Memorable __Appropriate use of time __Speech Accomplishes Purpose	
	FINAL GRADE		

Using the Speaker Evaluation Form

The Speaker Evaluation Form was created for the evaluation of speeches for the basic communication course, COMM 1402, Communication as Critical Citizenship. Because the course focuses on public speaking, the form seeks to address all the dimensions of a public speech. In spite of its

comprehensiveness, the rubric is designed to facilitate evaluation. It is divided into 4 major components: Speech Content, Speech delivery, Speech Preparation, and Speech Impact.

Here is a brief explanation of each dimension of these categories:

Speech Content: The message of the speaker

- **Analysis of Topic**: How well does the speaker understand the topic and is able to convey that understanding authoritatively to the listeners.
    - **Clear purpose**: A standard speech is presented to either inform (relay information/teach) or to persuade (to change the listeners attitude or behavior toward the topic). Does the speaker identify his/her purpose? Does he/she stick to the purpose throughout the speech?
    - **Clear central idea (thesis statement):** Every speech focuses on a clear statement or claim. It is not the topic but a statement about the topic. Can you clearly identify that idea/thesis?
    - **Multi-sided argumentation**: An effective speaker represents various perspectives about his topic. Does the speech represent these various perspectives? Has the speaker considered possible objections to the claims the speech is making?
    - **Relevant topic**: A college-level speech should be about a topic that is consistent with higher learning. Is the topic "college level," i.e. not a demonstration speech or a definitional speech whose only source is an encyclopedia article? Is the topic socially relevant?
- **Supporting Material**: An effective speech is not a repetition of what the listeners already know about the topic. IT should add to their knowledge or offer a new perspective about that knowledge. The speech should reflect preparation and research.
    - **Credible sources**: Has the speaker cited sources that go beyond what one could learn in a elementary encyclopedia? Are the sources more than just ".com" sources?
    - **Cited sources:** is the speaker relaying where the information comes from? Is he/she only citing sources in vague ways ("studies show," or "the news reported") or are the citations detailed using the names of authors, names of publications, and dates of these publications.
    - **Varied sources**: Speeches that are "just the facts" are usually boring. Has the speaker gone beyond the facts to include the "human element" in the forms of anecdotes, narratives, and illustrations?
    - **Sufficient sources:** Has the speaker cited the minimal number of sources required by the speech assignment?
    - **Appropriate visual aid:** If a visual aid is required for the speech assignment, is the visual aid used appropriately? Does it complement and not pull attention away from the speaker? Can it be seen clearly from the back of the room?
- **Organization:** As you are listening to a speech, you should be able to discern a progression of ideas that flow out of a clear central idea. These ideas should be clear and concise enough for you to recall the speech's basic content.
    - **Introduction:** How well do the first statements of the speaker do the following?
        - Get your attention?
        - Identify the topic?
        - Establish the speaker's authority to speak about the topic?
        - Preview the main points of the speech?

        - An effective speech does <u>not</u> begin with "Hello, my name is ___ and I'm going to talk about ___."
    - **Main points clear:** Are the main ideas of the speech sufficiently clear so that they can be remembered?
    - **Transitions:** Does the speaker use connectors (previews and summaries of information, signposts) so that the speech does not sound like a list of facts but a constructed argument?
    - **Conclusion:** Do the final statements of the speaker summarize the thesis statement and review the main points to help you recall them later? Does the final statement provide a sense of closure?
- **Style:** Speeches are crafted with words that are used effectively. Here you are listening for how well the speaker uses language.
    - **Defined terms**: Does the speaker take the time to define or explain terms that may be unclear to the audience? Does the speaker use concrete language instead of words like "thing" and "stuff."
    - **Vivid terms:** Does speaker know how to "turn a phrase" and choose words that engage the imagination? Is alliteration used in main points? How well does the speaker use allegory and metaphor?
    - **Grammar:** Is the speaker careful to observe grammatical rules such as subject-verb agreement and politically correct speech.
    - **Avoids clichés and jargon:** Does the speaker use terms that both recognizable and appreciated? Is the speaker overusing terms such as "like" or "you know"?

<u>Speech Delivery:</u> How does the speaker say the speech? Speeches are not like reports where the focus is simply on the content of the message. Speeches are relational. The speaker thinks about the audience and makes effective use of nonverbal communication and message adaptation to ensure that audience will be affected by the message.

- **Engagement:** How well does the speaker "connect" with the listeners? Does the speaker apply techniques to convey *goodwill* and *charisma* to those listening?
    - **Audience Awareness:** Is the speaker more focused on whom he/she is communicating with the speech itself. From the beginning of the speech, is the speaker working on audience rapport?
    - **Eye contact:** is the speaker spending a majority of the speech looking into the faces of his/her listeners? This is especially important during the introduction and conclusion of the speech. If using a visual aid, is the speaker looking at the audience or the visual aid?
    - **Poise:** Does the speaker demonstrate confidence in himself or herself so as to set the audience at ease? Does his/her manner encourage attentiveness to the message of the speech?
    - **Manages anxiety:** How well does the speaker manage the fear of public speaking? Do you become overly aware of tension in the voice or body so that effectiveness of the words diminished?
- **Body Movement:** An effective speaker uses his or her body movement, gestures, and overall behavior to enhance the speech message.
    - **Posture:** Does the speaker communicate confidence by standing tall? If using a podium, is she or he free from it and not clutching or tapping it? Is the speaker so tied to his or her notes that he or she is bent over or slouched?
    - **Gestures (including body movement):** Are hand and arm movements used to complement the words of the speech rather than express the nervousness of the

speaker. If the speaker moves, does he or she avoid pacing and move naturally to enhance his or her words.
    - **Facial expressions:** Is the speaker's face expressive? Does he or she take the time to smile and convey the emotions that are compatible with the content of the speech.
- **Voice quality:** Here the focus is on the speaker's ability to use his/her voice to embellish and enhance the words of the message.
    - **Volume:** Can the speaker be heard clearly from any points of the room?
    - **Tone:** Is the speaker's voice pleasant to listen to? Is their sufficient modulation in the tone so that the speech sounds like the speaker is conversing rather than reading?
    - **Variety:** Omit
    - **Extemporaneous:** Does the speaker give you the sense that he or she is talking *to* the audience and not *at* the audience? Is there sufficient freedom from the notes so that speech sounds like a conversation and not a reporting of "the facts"?
    - **Articulation:** Are the words of the speech clearly identifiable? Has the speaker taken the time to learn the correct pronunciation of key terms, phrases, or names in the speech?
    - **Vocal control:** How consistently does the speaker use her or his voice? Are there places in the speech where vocal control is lost because of nervousness? (For example, are there drops in volume, continual fumbling over works, or running out of breath?)
- **Fluency:** Like a good storytelling, a public speaker uses variety the pace of the speech to enhance comprehension and retention of the message.
    - **Freedom from notes:** Is the speaker sufficiently free from the notes so that the audience feels they are the focus of his or her attention? Is the speech frequently interrupted because the speaker is not sufficiently familiar with the material?
    - **Avoids vocal fillers:** Does the speaker frequently us "uhs" and "ums" to cover for lapses in memory or moments of silence?
    - **Effective pace (rate):** Does the speaker speak too fast so that the speech is difficult to understand? Or does the speaker speak to slow so that the information gets bogged down? Is there enough variety in the pace to make the delivery interesting?
    - **Effective use of pauses:** Does the speaker insert pauses for effect allowing the listeners to appreciate the importance of a point or time to process the information? How much are pauses due to memory lapses?

<u>Speech Preparation</u>

- **Outline:** While a speaker once to give a sense of spontaneity when he or she is speaking, an effective speech requires proper planning and orchestration of information. Instructors will teach students proper outlining procedures and will most likely require students to submit an outline to be graded prior to the actual delivery of the speech. This component should reflect the student's outline score.
    - **Structure:** Does the outline include the basic components of the speech with enough information so that the instructor can evaluate the flow of ideas and the analysis of the topic. Most outlines should include:
        - **Speech topic**
        - **Speech purpose**
        - **Central idea or Thesis Statement**
        - **Introduction**
        - **Main points with their supporting subpoints**
        - **Conclusion**
        - **Transitions: Connectives between the main points**

- **Bibliography or References:** Does the outline include the required number of references that *are actually used in the speech*? Are the references in proper APA or MLA format?
- **Annotation:** Does the bibliography include a brief statement about the content of each sources (optional).

Impact: The impact is not where you evaluate the speaker but where you evaluate yourself after having heard the speech. If the speech was informative, have you learned something about the topic? If the speech was persuasive, have you been influenced to think or act differently with regard to the topic?

- **Overall impact:** Often an effective speech can be more (or less) the sum of its parts. A speech itself may have some deficiencies, but as you reflect on the speech as a whole, you realize that it has been impactful. On the other hand, a speech may be technically flawless in each component, but the overall effect is not as strong. These are the items to consider:
  - **Speaker is credible:** Has the speaker demonstrated sufficient mastery of the material so that he or she has spoken authoritatively? At any point in the speech did you feel that the speaker was playing fast and loose with the information or did not care whether or not audience was affected?
  - **Speech is memorable:** Have you retained the essential information of the speech so that could talk about or share it's content with someone else? If you were given a test on the speech content, could you pass it?
  - **Appropriate use of time:** Did the speaker stay within the time constraints of the assignment? Neither too long nor too short?
  - **Speech accomplishes purpose:** Did the speaker accomplish what she or he set out to do? If speech was to inform, have the listeners learned? If the speech was to persuade, have the listeners been influenced attitudinally or behaviorally by the speech?

Scoring the Speech Rubric

The speech rubric was originally designed to assess the public speaking instruction of COMM 1402. Each of the ten categories receives a score of 1-5 (with 5 being the superior score) for both the informative and the persuasive speeches. The means of these scores given to the components on the first speech was compared to the corresponding means of the components on the second speech. Using a statistical measure called a T-test, the comparison should determine if there has been significant improvement in the areas measured. Special instructions are given to COMM 1402 on how to report this data for assessment purposes.

The four column format of the rubric is designed to give a student meaningful and timely feedback for his or her speech. You should be able to evaluate the speech completely while the speech is being given. The first column (Rating) is where you will place the 1-5 score for each component measured, the second names the component that you are evaluating, the third serves as *shorthand* for you to simply indicate the areas where the speaker has been effective or ineffective, and the fourth is an area where you can provide your own verbal feedback to the student about the speech.

For assessment purposes, The Department of General Studies suggests you base your numerical scores in column 1 (Rating) on the number of items checked or unchecked for each dimension in column 3.

If a dimension has 5 indicators, you can simply consider each indicator worth one point. If the student has been successful in all 5 dimensions, the score would be 5. All 4, the score would be 4, etc. (Please note: For the purpose of statistical analysis, the lowest score is a “1” and not a “0”)

If a dimension has 4 indicators….4 out of 4 is scored 5, 3 out of 4 can be scored a either as a 4 or 3, 2 out of 4 can be scored as a 3 or 2, and 1 out of 4 can be scored as a 2 or a 1.

If a dimension has 3 indicators…3 out of 3 is scored a 5, 2 out of 3 is scored a 4 or 3, 1 out of 3 is scored a 2 or 1.

It needs to be understood that evaluating a speech is a subjective process and the meaning of the scores need to be interpreted as such. Nonetheless, the rubric is applied so that we can approximate an overall consistency as to how speeches and presentations are evaluated both the COMM 1402 as well as other General Studies courses.

GES2: Communicate effectively through speech - Advanced

CAPSTONE COURSES

Semester: FALL 2013 **REPORT DATE:** 1/8/2014

Speech in capstone courses is assessed based on the student's final oral presentation using the Speaker Evaluation created by the Kean University Communications Department. Student work sample varied by course and subject.

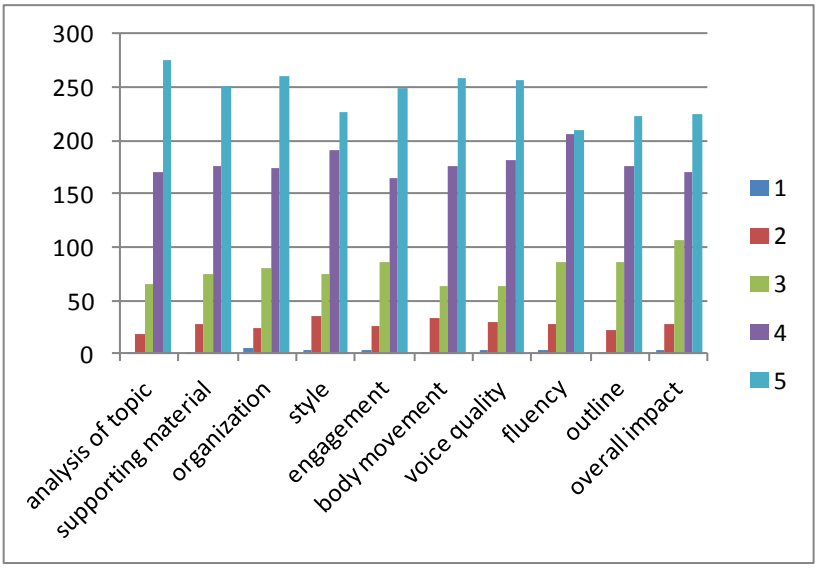
Number of students: **593**
Number of sections: **41**
Number of courses: **16**

Mean scores overall:

Analysis of topic	4.3
Supporting material	4.2
Organization	4.2
Style	4.1
Engagement	4.2
Body Movement	4.2
Voice Quality	4.2
Fluency	4.1
Outline	4.2
Overall Impact	4.1

Key: 1=Unacceptable 2=Fair 3= OK/acceptable 4=good/above average 5=excellent

Distribution of scores:

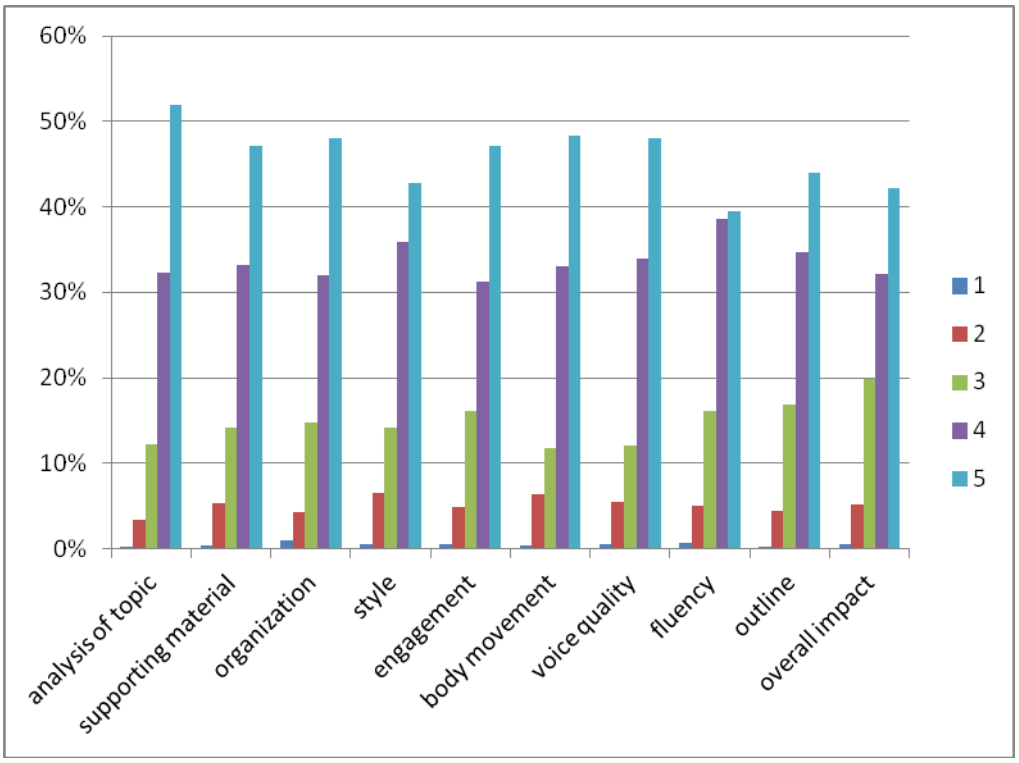


Frequency by Score

	analysis of topic	supporting material	organization	style	engagement	body movement	voice quality	fluency	outline	overall impact
1	1	2	5	3	3	2	3	4	1	3
2	18	28	23	35	26	34	29	27	22	28
3	65	75	80	75	85	63	64	86	85	106
4	171	176	174	191	165	176	181	205	175	171
5	275	250	261	227	249	258	256	210	222	225
total	530	531	543	531	528	533	533	532	505	533

Frequency by score

	analysis of topic	supporting material	organization	style	engagement	body movement	voice quality	fluency	outline	overall impact
1	0%	0%	1%	1%	1%	0%	1%	1%	0%	1%
2	3%	5%	4%	7%	5%	6%	5%	5%	4%	5%
3	12%	14%	15%	14%	16%	12%	12%	16%	17%	20%
4	32%	33%	32%	36%	31%	33%	34%	39%	35%	32%
5	52%	47%	48%	43%	47%	48%	48%	39%	44%	42%



Students in Kean University capstones were assessed for speech with the following dimensions: Analysis of Topic (Mean 4.3, 84% of the students met level 4 or 5), followed by Voice Quality (82%), Body Movement (81%), Organization (80%) and Supporting Material (80%).

To be improved: Engagement (22% at level 1-3), followed by Fluency (22%), Outline (21%), and Style (21%). The result indicating the lowest percentage of seniors met level 5 in Fluency (39%). 26% of the seniors only met level 3 (acceptable) for overall impact, suggesting more practice is need for overall impact too.

Discussion/Action/Closing the Loop:

In Fall 2014, 593 students in capstone courses from 41 different sections were assessed on their presentation skills based on the Kean University speaker evaluation form.

In the 10 dimensions assessed, all means were over a 4, which is the target for students in capstone courses. While the means met the goal, 22% of students assessed scored at a 3 or lower in Fluency and 26% of students assessed scored at a 3 or lower in Overall Impact. Looking at this distribution of scores, there are two key areas that would benefit from immediate attention. These are:

- Fluency: Fluency in presentations refers to the ability of the presenter to vary pace, and match presentation style to the audience.

  This dimension of communication assesses the speaker's ability to present the information in the speech effectively in terms of managing the pace of information and the audience reaction. Specifically, this dimension refers to the ability of the presenter to manage the speed of delivery, pauses and silence (while avoiding vocal fillers) and freedom from notes which indicates familiarity with the content.

- Overall impact:

  This dimension of communication assesses the overall effect of the presentation. The type of presentation may vary, but impact is a standard- and highly important- part of speech communication. Specifically, this dimension refers to the success of the presentation including the audience's belief that the speaker is credible and has demonstrated mastery of the material, the presentation itself was memorable in that the audience has retained the essential information in order to use, talk or share the content as needed, appropriate use of time and accomplishment of purpose in that the audience has an increase or change in knowledge, understanding or behavior.

Both skills, fluency and overall impact, are key for graduating seniors regardless of major as they assess the student's ability to prepare and communicate in a way that meets the goals/need of the communication.

Actions to be taken in Spring 2014

- Training to be designed and presented to capstone faculty in both areas- covering what each skill is, verifying that the identification of a specific level is accurate and strategies for increasing student performance
- Resources made available for the two specific areas of focus for the next year to students including standard videos which demonstrate a variety of presentations along with how they would be scored using the rubric so that students can "see" what they are expected to do and not do.
- Explanation to students of the rubric and what the specific expectations are for capstone courses in that discipline.

Specific Course/Sections Included for Fall 2013

BIO 4970 – 4
DSN 4000 - 2
FA 4800 - 1
MATH 4890 - 2
MGS 4999 - 1
MGS 4999 - 2
MGS 4999 - 4
NURS 4900 - A1
PA 4000 – 1
PED 4610 - K1
PSY 4940 – 4
PSY 4940 – 7
PSY 4940 - 11
PSY 4940 – K1
SOC 4600 - 1
SPAN 4700 - 1
SPED 4200 - 2
SOC 4600 - 2
MGS 4999 - 6
MGS 4999 - 3
MGS 4999 - K1
HIST 4490 - K1
ENG 4817 - 1
COMM 4962 - 3
PS 4130 -1
NURS 4900 - A2
BIO 4970 – 1
NURS 4900 - A3
BIO 4970 – 2
COMM 4962 - 1
COMM 4962 - 5
COMM 4962 - 2
MATH 4890 - 1
PSY 4940 – 6
PSY 4940 – 1
PSY 4940 - 13
PSY 4940 - 10
PSY 4940 – 9
PSY 4940 – 8
PSY 4940 – 2
SPED 4200 - 1

Appendix

Speaker Evaluation Form

Name of Speaker _____ Section _____

Student ID _____ Speech (1or 2)_____

Key: 1=Unacceptable 2=Fair 3= OK/acceptable 4=good/above average 5=excellent

Rating	Item	☑ =Postive,Effective 0=Needs Work	Comments
Content			
	Analysis of Topic	__Clear Purpose __Multi-sided argumentation __Clear central ideas __ Relevant topic	
	Supporting Material	__Credible Sources __Varied Sources __Cited Sources __Sufficient Sources __Appropriate visual aid	
	Organization	__Introduction __Transitions __Main Points Clear __Conclusion	
	Style	__Defined terms __Grammar ___Vivid Terms __Avoids clichés, jargon	
Delivery			
	Engagement	__Audience Awareness __Poise __Eye Contact __Manages Anxiety	
	Body Movement	__Posture __Facial Expression __Gestures	
	Voice Quality	__Volume __Extemporaneous ___Tone __Articulation ___Variety __Vocal Control	
	Fluency	__Freedom from notes __Effective pace __Avoids vocal filters __Effective use of Pauses __Effective rate	
Preparation			
	Outline	__Structure __Bibliography __Annotation	
Impact			
	OVERALL IMPACT	_Speaker is credible __Speech is Memorable __Appropriate use of time __Speech Accomplishes Purpose	
	FINAL GRADE		

Using the Speaker Evaluation Form

The Speaker Evaluation Form was created for the evaluation of speeches for the basic communication course, COMM 1402, Communication as Critical Citizenship. Because the course focuses on public speaking, the form seeks to address all the dimensions of a public speech. In spite of its comprehensiveness, the rubric is designed to facilitate evaluation. It is divided into 4 major components: Speech Content, Speech delivery, Speech Preparation, and Speech Impact.

Here is a brief explanation of each dimension of these categories:

Speech Content: The message of the speaker

- **Analysis of Topic**: How well does the speaker understand the topic and is able to convey that understanding authoritatively to the listeners.
    - **Clear purpose**: A standard speech is presented to either inform (relay information/teach) or to persuade (to change the listeners attitude or behavior toward the topic). Does the speaker identify his/her purpose? Does he/she stick to the purpose throughout the speech?
    - **Clear central idea (thesis statement):** Every speech focuses on a clear statement or claim. It is not the topic but a statement about the topic. Can you clearly identify that idea/thesis?
    - **Multi-sided argumentation**: An effective speaker represents various perspectives about his topic. Does the speech represent these various perspectives? Has the speaker considered possible objections to the claims the speech is making?
    - **Relevant topic**: A college-level speech should be about a topic that is consistent with higher learning. Is the topic "college level," i.e. not a demonstration speech or a definitional speech whose only source is an encyclopedia article? Is the topic socially relevant?
- **Supporting Material**: An effective speech is not a repetition of what the listeners already know about the topic. IT should add to their knowledge or offer a new perspective about that knowledge. The speech should reflect preparation and research.
    - **Credible sources**: Has the speaker cited sources that go beyond what one could learn in a elementary encyclopedia? Are the sources more than just ".com" sources?
    - **Cited sources:** is the speaker relaying where the information comes from? Is he/she only citing sources in vague ways ("studies show," or "the news reported") or are the citations detailed using the names of authors, names of publications, and dates of these publications.
    - **Varied sources**: Speeches that are "just the facts" are usually boring. Has the speaker gone beyond the facts to include the "human element" in the forms of anecdotes, narratives, and illustrations?
    - **Sufficient sources:** Has the speaker cited the minimal number of sources required by the speech assignment?
    - **Appropriate visual aid:** If a visual aid is required for the speech assignment, is the visual aid used appropriately? Does it complement and not pull attention away from the speaker? Can it be seen clearly from the back of the room?

- **Organization:** As you are listening to a speech, you should be able to discern a progression of ideas that flow out of a clear central idea. These ideas should be clear and concise enough for you to recall the speech's basic content.
    - **Introduction:** How well do the first statements of the speaker do the following?
        - Get your attention?
        - Identify the topic?
        - Establish the speaker's authority to speak about the topic?
        - Preview the main points of the speech?
        - An effective speech does <u>not</u> begin with "Hello, my name is ___ and I'm going to talk about ___."
    - **Main points clear:** Are the main ideas of the speech sufficiently clear so that they can be remembered?
    - **Transitions:** Does the speaker use connectors (previews and summaries of information, signposts) so that the speech does not sound like a list of facts but a constructed argument?
    - **Conclusion:** Do the final statements of the speaker summarize the thesis statement and review the main points to help you recall them later? Does the final statement provide a sense of closure?
- **Style:** Speeches are crafted with words that are used effectively. Here you are listening for how well the speaker uses language.
    - **Defined terms**: Does the speaker take the time to define or explain terms that may be unclear to the audience? Does the speaker use concrete language instead of words like "thing" and "stuff."
    - **Vivid terms:** Does speaker know how to "turn a phrase" and choose words that engage the imagination? Is alliteration used in main points? How well does the speaker use allegory and metaphor?
    - **Grammar:** Is the speaker careful to observe grammatical rules such as subject-verb agreement and politically correct speech.
    - **Avoids clichés and jargon:** Does the speaker use terms that both recognizable and appreciated? Is the speaker overusing terms such as "like" or "you know"?

<u>Speech Delivery:</u> How does the speaker say the speech? Speeches are not like reports where the focus is simply on the content of the message. Speeches are relational. The speaker thinks about the audience and makes effective use of nonverbal communication and message adaptation to ensure that audience will be affected by the message.

- **Engagement:** How well does the speaker "connect" with the listeners? Does the speaker apply techniques to convey *goodwill* and *charisma* to those listening?
    - **Audience Awareness:** Is the speaker more focused on whom he/she is communicating with the speech itself. From the beginning of the speech, is the speaker working on audience rapport?
    - **Eye contact:** is the speaker spending a majority of the speech looking into the faces of his/her listeners? This is especially important during the introduction and conclusion of the speech. If using a visual aid, is the speaker looking at the audience or the visual aid?

    - **Poise:** Does the speaker demonstrate confidence in himself or herself so as to set the audience at ease? Does his/her manner encourage attentiveness to the message of the speech?
    - **Manages anxiety:** How well does the speaker manage the fear of public speaking? Do you become overly aware of tension in the voice or body so that effectiveness of the words diminished?
- **Body Movement:** An effective speaker uses his or her body movement, gestures, and overall behavior to enhance the speech message.
    - **Posture:** Does the speaker communicate confidence by standing tall? If using a podium, is she or he free from it and not clutching or tapping it? Is the speaker so tied to his or her notes that he or she is bent over or slouched?
    - **Gestures (including body movement):** Are hand and arm movements used to complement the words of the speech rather than express the nervousness of the speaker. If the speaker moves, does he or she avoid pacing and move naturally to enhance his or her words.
    - **Facial expressions:** Is the speaker's face expressive? Does he or she take the time to smile and convey the emotions that are compatible with the content of the speech.
- **Voice quality:** Here the focus is on the speaker's ability to use his/her voice to embellish and enhance the words of the message.
    - **Volume:** Can the speaker be heard clearly from any points of the room?
    - **Tone:** Is the speaker's voice pleasant to listen to? Is their sufficient modulation in the tone so that the speech sounds like the speaker is conversing rather than reading?
    - **Variety:** Omit
    - **Extemporaneous:** Does the speaker give you the sense that he or she is talking *to* the audience and not *at* the audience? Is there sufficient freedom from the notes so that speech sounds like a conversation and not a reporting of "the facts"?
    - **Articulation:** Are the words of the speech clearly identifiable? Has the speaker taken the time to learn the correct pronunciation of key terms, phrases, or names in the speech?
    - **Vocal control:** How consistently does the speaker use her or his voice? Are there places in the speech where vocal control is lost because of nervousness? (For example, are there drops in volume, continual fumbling over works, or running out of breath?)
- **Fluency:** Like a good storytelling, a public speaker uses variety the pace of the speech to enhance comprehension and retention of the message.
    - **Freedom from notes:** Is the speaker sufficiently free from the notes so that the audience feels they are the focus of his or her attention? Is the speech frequently interrupted because the speaker is not sufficiently familiar with the material?
    - **Avoids vocal fillers:** Does the speaker frequently us "uhs" and "ums" to cover for lapses in memory or moments of silence?
    - **Effective pace (rate):** Does the speaker speak too fast so that the speech is difficult to understand? Or does the speaker speak to slow so that the information gets bogged down? Is there enough variety in the pace to make the delivery interesting?
    - **Effective use of pauses:** Does the speaker insert pauses for effect allowing the listeners to appreciate the importance of a point or time to process the information? How much are pauses due to memory lapses?

Speech Preparation

- **Outline:** While a speaker once to give a sense of spontaneity when he or she is speaking, an effective speech requires proper planning and orchestration of information. Instructors will teach students proper outlining procedures and will most likely require students to submit an outline to be graded prior to the actual delivery of the speech. This component should reflect the student's outline score.
    - **Structure:** Does the outline include the basic components of the speech with enough information so that the instructor can evaluate the flow of ideas and the analysis of the topic. Most outlines should include:
        - **Speech topic**
        - **Speech purpose**
        - **Central idea or Thesis Statement**
        - **Introduction**
        - **Main points with their supporting subpoints**
        - **Conclusion**
        - **Transitions: Connectives between the main points**
    - **Bibliography or References:** Does the outline include the required number of references that *are actually used in the speech*? Are the references in proper APA or MLA format?
    - **Annotation:** Does the bibliography include a brief statement about the content of each sources (optional).

Impact: The impact is not where you evaluate the speaker but where you evaluate yourself after having heard the speech. If the speech was informative, have you learned something about the topic? If the speech was persuasive, have you been influenced to think or act differently with regard to the topic?

- **Overall impact:** Often an effective speech can be more (or less) the sum of its parts. A speech itself may have some deficiencies, but as you reflect on the speech as a whole, you realize that it has been impactful. On the other hand, a speech may be technically flawless in each component, but the overall effect is not as strong. These are the items to consider:
    - **Speaker is credible:** Has the speaker demonstrated sufficient mastery of the material so that he or she has spoken authoritatively? At any point in the speech did you feel that the speaker was playing fast and loose with the information or did not care whether or not audience was affected?
    - **Speech is memorable:** Have you retained the essential information of the speech so that could talk about or share it's content with someone else? If you were given a test on the speech content, could you pass it?
    - **Appropriate use of time:** Did the speaker stay within the time constraints of the assignment? Neither too long nor too short?
    - **Speech accomplishes purpose:** Did the speaker accomplish what she or he set out to do? If speech was to inform, have the listeners learned? If the speech was to persuade, have the listeners been influenced attitudinally or behaviorally by the speech?

Scoring the Speech Rubric

The speech rubric was originally designed to assess the public speaking instruction of COMM 1402. Each of the ten categories receives a score of 1-5 (with 5 being the superior score) for both the informative and the persuasive speeches. The means of these scores given to the components on the first speech was compared to the corresponding means of the components on the second speech. Using a statistical measure called a T-test, the comparison should determine if there has been significant improvement in the areas measured. Special instructions are given to COMM 1402 on how to report this data for assessment purposes.

The four column format of the rubric is designed to give a student meaningful and timely feedback for his or her speech. You should be able to evaluate the speech completely while the speech is being given. The first column (Rating) is where you will place the 1-5 score for each component measured, the second names the component that you are evaluating, the third serves as *shorthand* for you to simply indicate the areas where the speaker has been effective or ineffective, and the fourth is an area where you can provide your own verbal feedback to the student about the speech.

For assessment purposes, The Department of General Studies suggests you base your numerical scores in column 1 (Rating) on the number of items checked or unchecked for each dimension in column 3.

If a dimension has 5 indicators, you can simply consider each indicator worth one point. If the student has been successful in all 5 dimensions, the score would be 5. All 4, the score would be 4, etc. (Please note: For the purpose of statistical analysis, the lowest score is a “1” and not a “0”)

If a dimension has 4 indicators….4 out of 4 is scored 5, 3 out of 4 can be scored a either as a 4 or 3, 2 out of 4 can be scored as a 3 or 2, and 1 out of 4 can be scored as a 2 or a 1.

If a dimension has 3 indicators…3 out of 3 is scored a 5, 2 out of 3 is scored a 4 or 3, 1 out of 3 is scored a 2 or 1.

It needs to be understood that evaluating a speech is a subjective process and the meaning of the scores need to be interpreted as such. Nonetheless, the rubric is applied so that we can approximate an overall consistency as to how speeches and presentations are evaluated in COMM 1402 as well as other General Studies courses.

SLO S2: COMMUNICATE EFFECTIVELY THROUGH SPEECH

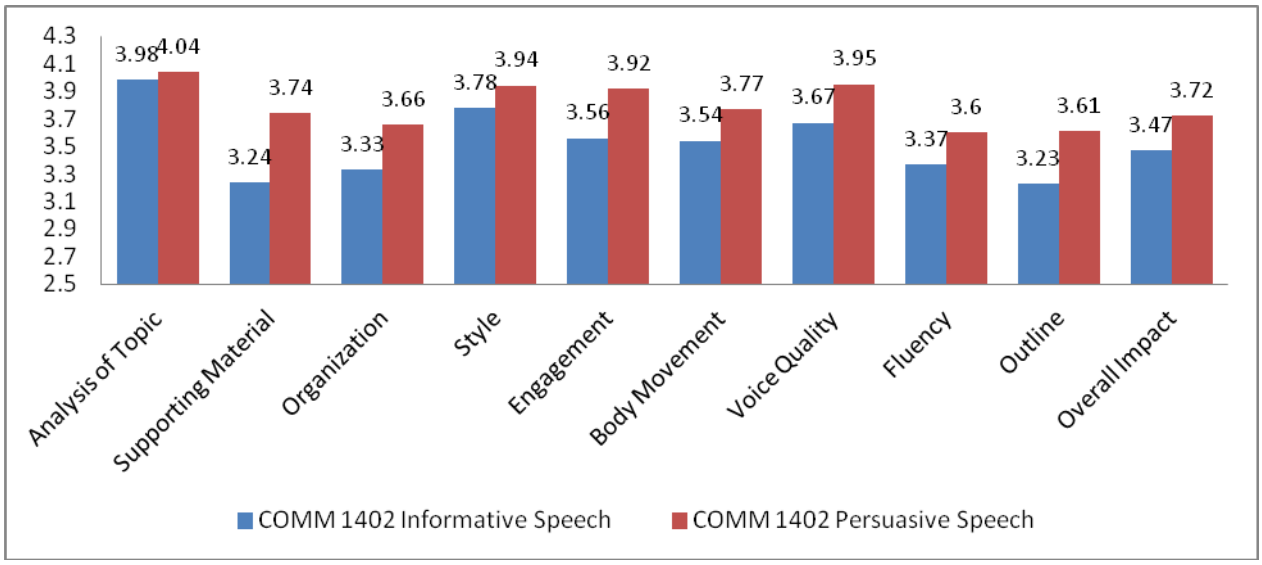
OVERALL SUMMARY

Semester: FALL 2013

REPORT DATE: 1/9/2014

The courses being assessed range from the beginning to the intermediate to the advanced level. All courses have been scored based on the Speaker Evaluation Rubric developed by the Kean University Communications Department. At the beginner level, COMM 1402, each student is required to give two 7-minute speeches. One is informative and one is persuasive. Both speeches have been scored. Instructors evaluate each speech's content, delivery, preparation and overall impact. For the fall semester of 2013, 458 students in every section of the course have been assessed. At the intermediate level, GE 202X, each student is required to present their research topic and findings, and while the medium is optional, many students choose to use a Power Point presentation. Twenty-two sections of GE202X (8 courses) containing 438 students were assessed in Fall 2013. Speech at the capstone level is assessed, usually, but not always, by a final presentation of work. The content and style of presentation varies as it is based on the individual course of learning. Five hundred ninety-three students in forty-one sections of capstone courses (N=16) have been assessed.

GE SLO S2 Oral Communication Fall 2013 Mean Scores										
	Analysis of Topic	Supporting Material	Organization	Style	Engagement	Body Movement	Voice Quality	Fluency	Outline	Overall Impact
COMM 1402 Informative Speech	3.98	3.24	3.33	3.78	3.56	3.54	3.67	3.37	3.23	3.47
COMM 1402 Persuasive Speech	4.04	3.74	3.66	3.94	3.92	3.77	3.95	3.6	3.61	3.72
Difference between Basic Informative and Basic Persuasive Speech	0.1	0.5	0.3	0.2	0.4	0.2	0.3	0.2	0.4	0.3



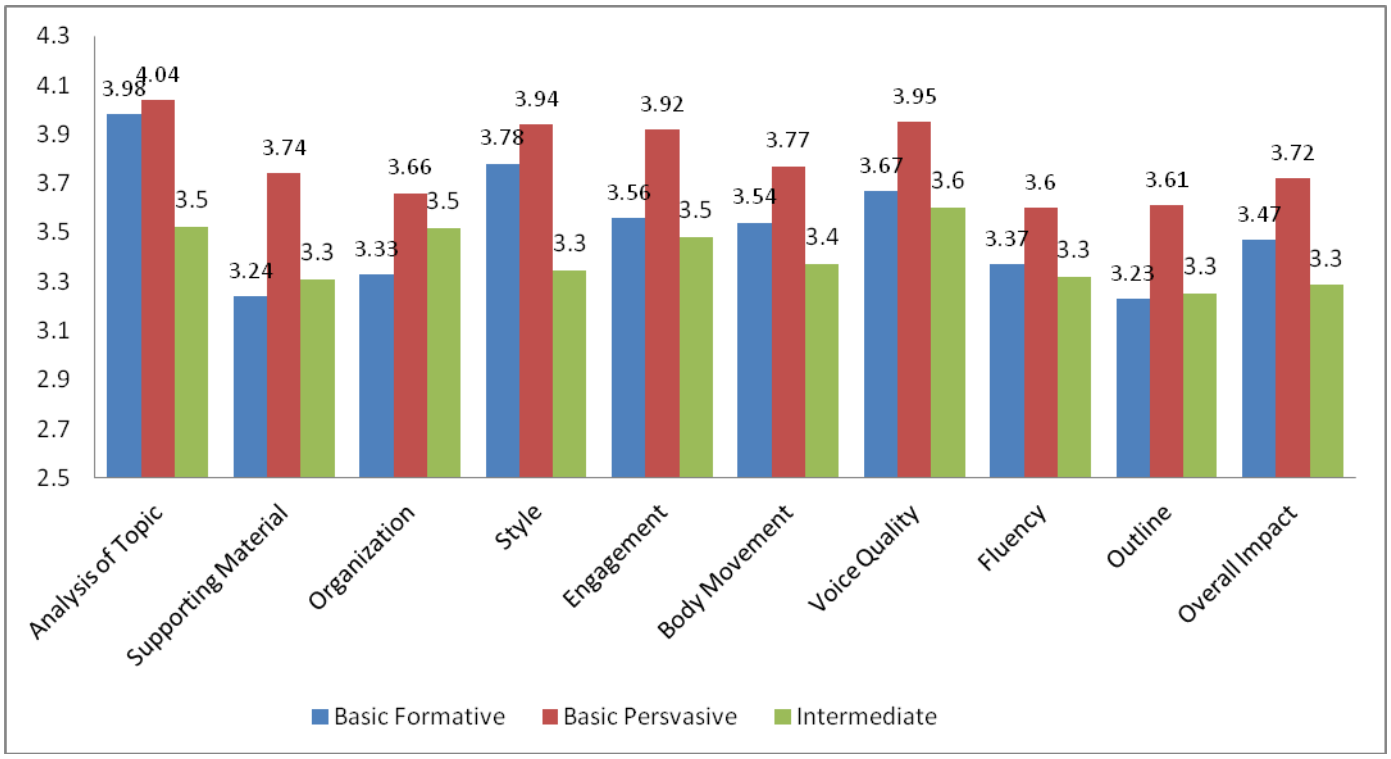
Data collected (see chart on pg. 1) suggests that students in COMM 1402 achieve slightly better results in persuasive speeches than in their informative counterparts. While students appear to improve in each skill, provided the informative speech precedes the persuasive, it is difficult to know from this data alone if students are improving because they are learning the skills being assessed in the rubric or if students are more competent in persuasion than in informative speech making. Specific categories of the rubric, such as supporting material, fluency, and outlining (low scores in both speeches), are consistent with weaknesses in similar skills found in data assessed from both the University Writing Rubric and the AACU Critical Thinking Rubric. Categories of development and organization (writing) and evidence and conclusions (critical thinking) echoed areas in College Composition that beginning students often struggle with. As these courses are at similar skill levels, the data suggests that students are at the benchmark for beginning learning.

GE SLO S1 Oral Communication Average Score										
Course/ level	Analysis of Topic	Supporting Material	Organization	Style	Engagement	Body Movement	Voice Quality	Fluency	Outline	Overall Impact
Basic Informative	3.98	3.24	3.33	3.78	3.56	3.54	3.67	3.37	3.23	3.47
Basic Persuasive	4.04	3.74	3.66	3.94	3.92	3.77	3.95	3.6	3.61	3.72
Intermediate	3.5	3.3	3.5	3.3	3.5	3.4	3.6	3.3	3.3	3.3
Difference between Basic Informative & Intermediate	-0.46	0.07	0.19	-0.43	-0.08	-0.17	-0.07	-0.05	0.02	-0.18
Difference between Basic Persuasive & Intermediate	-0.52	-0.43	-0.14	-0.59	-0.44	-0.40	-0.35	-0.28	-0.36	-0.43

Basic level Informative COMM 1402 Informative Speech

Basic level Persuasive: COMM 1402 Persuasive Speech

Intermediate Level GE202x

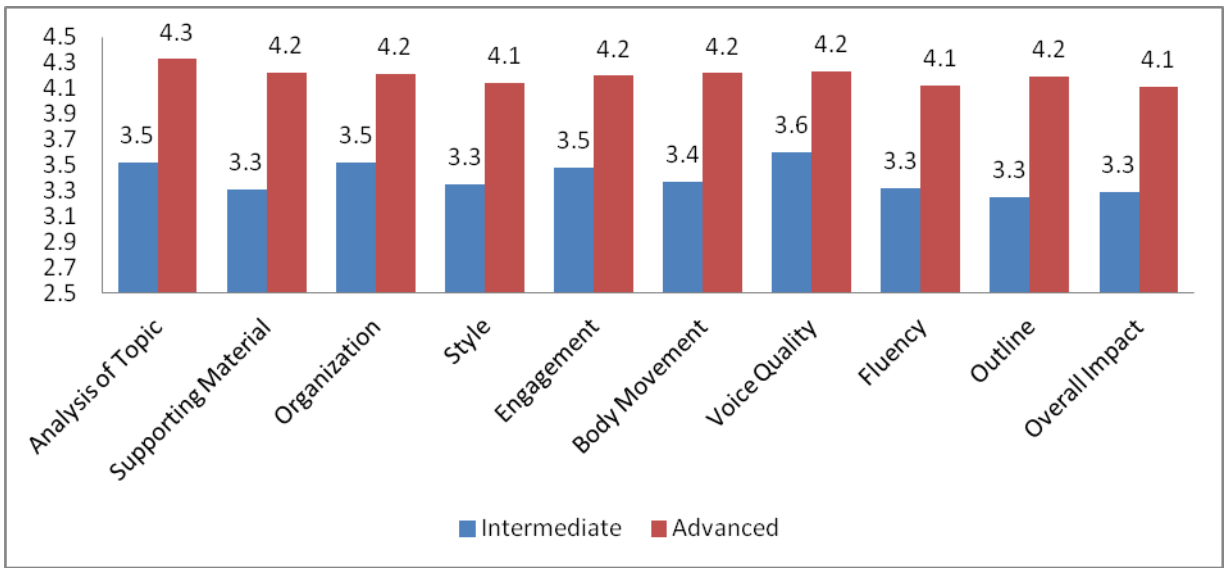


At the intermediate level, data suggests that student scores in GE 202X make only minimal improvement from the beginning level, especially when compared to the persuasive speech of COMM 1402 (decrease rather than increase). However, comparing the scores of COMM 1402's informative speech and the scores of GE 202X (see charts on pg. 2) the numbers appear to be identical in all categories except analysis of topic and style (both lower by .40+ at the intermediate level), and organization (higher by .19 at the intermediate level). While other scores such as overall impact and body movement were also lower in GE 202X than in COMM 1402, the margin was .18 and less making these scores almost identical. As GE 202X requires a presentation that is more closely allied with COMM 1402's Informative Speech, it can be inferred that students, while quite capable at persuasive techniques, as shown in the data, struggle more with solely imparting academic information in a spoken medium.

GE SLO S1 Oral Communication Average Score										
Course/level	Analysis of Topic	Supporting Material	Organization	Style	Engagement	Body Movement	Voice Quality	Fluency	Outline	Overall Impact
Intermediate	3.5	3.3	3.5	3.3	3.5	3.4	3.6	3.3	3.3	3.3
Advanced	4.3	4.2	4.2	4.1	4.2	4.2	4.2	4.1	4.2	4.1
Difference between Intermediate & Advanced	0.81	0.91	0.69	0.80	0.72	0.85	0.63	0.80	0.94	0.83

Intermediate Level GE202x

Advanced Capstone

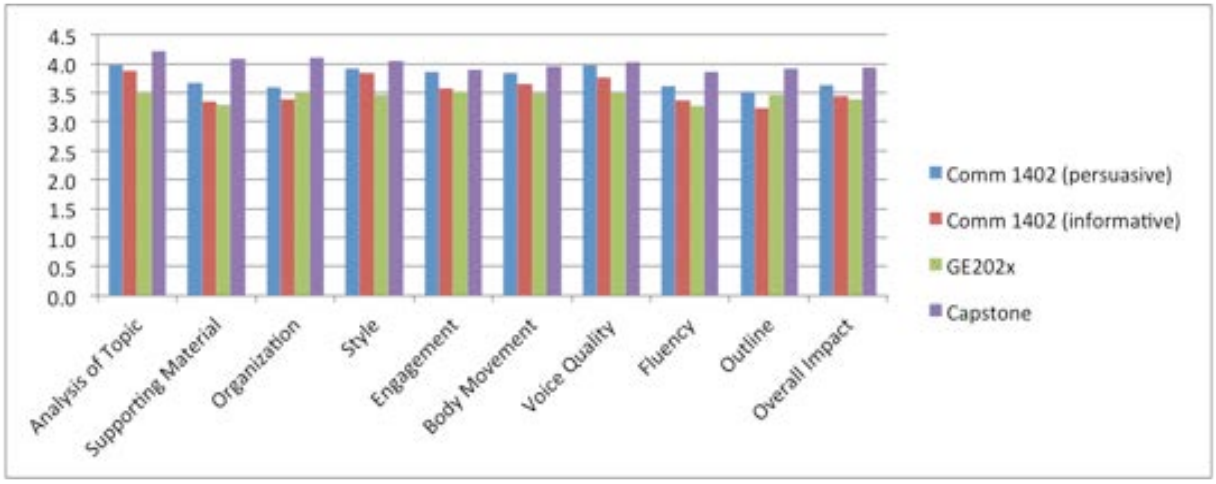


Students at the capstone level make significant progress from the intermediate level (from +0.6 to 1.0) in every area indicated on the rubric. Areas of difficulty appear to be resolved by the capstone level. From the beginning level supporting materials have increased by scores of +.91; fluency increased by +.8; and organization increased by +0.69. These three areas were students' weakest in COMM 1402's informative speech, yet at the capstone level data shows marked improvement. Likewise, in the areas of analysis of topic, organization, style, and overall impact, areas that challenged students in GE 202X, scores improved by +0.7-+0.8 (see charts on pg. 3).

Spring 2013 Mean Scores

Supporting Material	Organization	Style	Engagement	Body Movement	Voice Quality	Fluency	Outline	Overall Impact
3.7	3.6	3.9	3.9	3.8	4.0	3.6	3.5	3.6
3.3	3.4	3.8	3.6	3.7	3.8	3.4	3.2	3.5
3.3	3.5	3.5	3.5	3.5	3.5	3.3	3.5	3.4
4.1	4.1	4.0	3.9	4.0	4.0	3.9	3.9	3.9

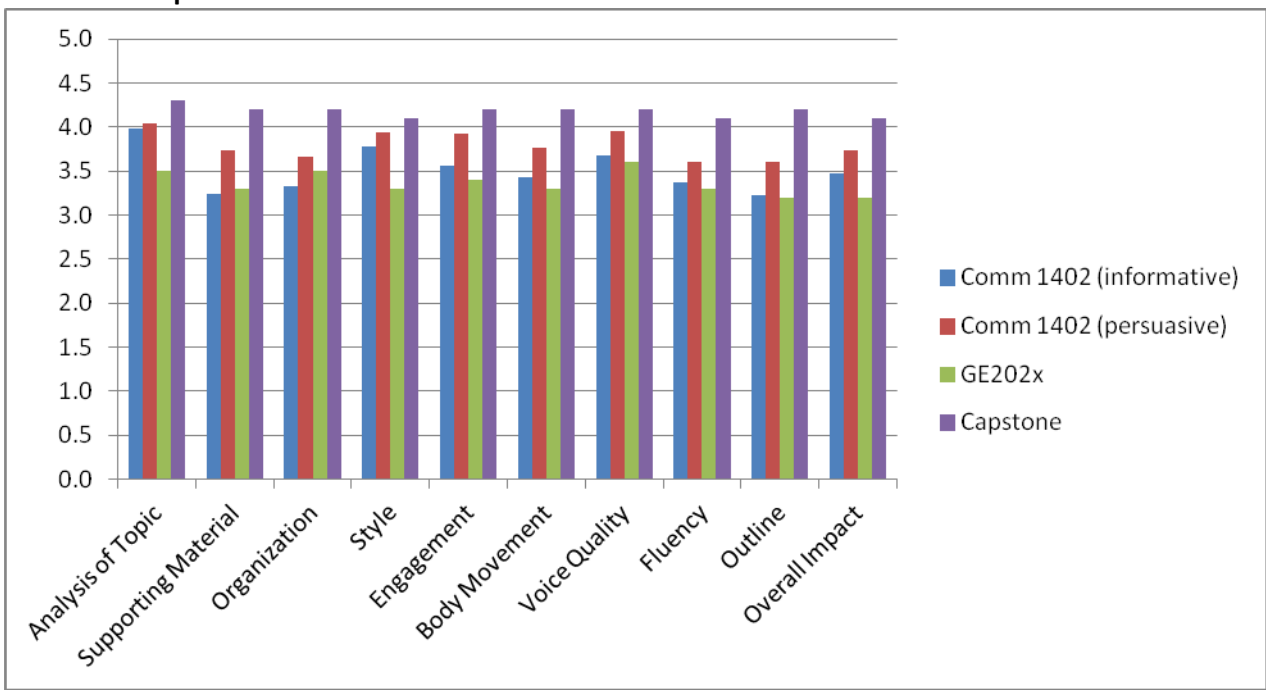
Spring 2013 Comparison of Means



Fall 2013 Mean Scores

Supporting Material	Organization	Style	Engagement	Body Movement	Voice Quality	Fluency	Outline	Overall Impact
3.7	3.7	3.9	3.9	3.8	4.0	3.6	3.6	3.7
3.2	3.3	3.8	3.6	3.4	3.7	3.4	3.2	3.5
3.3	3.5	3.3	3.4	3.3	3.6	3.3	3.2	3.2
4.2	4.2	4.1	4.2	4.2	4.2	4.1	4.2	4.1

Fall 2013 Comparison of Means



In looking at the data for Spring 2013 and Fall 2013, data stays consistent with a .2 or less difference in the mean. Areas to focus remain consistent throughout all levels.

RECOMMENDATIONS:

Discussing and norming across levels (COMM 1402, GE202X, CAPSTONE) can only improve teaching and student learning. Further recommendations will be developed through discussions with the capstone faculty and Fred Fitch of the Communications Department.

Other Questions to consider:

- Should speech at the intermediate level be measured in a course(s) other than Research & Technology/ GE 202X?
- Should the persuasive speech come first in COMM 1402 since it appears that these are the skills that students are strongest in?
- Can the COMM 1402 faculty work with GE 202X faculty to both prepare students and streamline expectations between courses?
- How many students do we lose to drop out/ failure because of lower scores/ less success in beginning/ intermediate courses? What can be done to increase their success in G2? In general?
- Consider transfers: How many students by-pass beginning/ intermediate courses and move on to capstone courses without the G2 skills needed for these courses?
- Capstone success: is success in capstone courses in G2 skills due to comfort with subject matter or with skill? Should we insist students work outside their majors in various skills such as G2 to increase success beyond undergraduate coursework?

Appendix

GE SLO S1 Oral Communication Average Score										
Course/level	Analysis of Topic	Supporting Material	Organization	Style	Engagement	Body Movement	Voice Quality	Fluency	Outline	Overall Impact
Basic Informative	3.98	3.24	3.33	3.78	3.56	3.54	3.67	3.37	3.23	3.47
Basic Persuasive	4.04	3.74	3.66	3.94	3.92	3.77	3.95	3.6	3.61	3.72
Intermediate	3.5	3.3	3.5	3.3	3.5	3.4	3.6	3.3	3.3	3.3
Advanced	4.3	4.2	4.2	4.1	4.2	4.2	4.2	4.1	4.2	4.1
Difference between Basic Informative and Basic Persuasive	0.1	0.5	0.3	0.2	0.4	0.2	0.3	0.2	0.4	0.3

Difference between Basic Informative & Intermediate	-0.46	0.07	0.19	-0.43	-0.08	-0.17	-0.07	-0.05	0.02	-0.18
Difference between Basic Informative & Advanced	0.35	0.98	0.88	0.36	0.64	0.68	0.56	0.75	0.96	0.64
Difference between Intermediate & Advanced	0.81	0.91	0.69	0.80	0.72	0.85	0.63	0.80	0.94	0.83

Basic level Informative COMM 1402 Informative Speech
Basic level Persuasive: COMM 1402 Persuasive Speech
Intermediate Level GE202x
Advanced Capstone

GES3: Solve Problems using Quantitative Reasoning

MATH 0901 Introductory Algebra

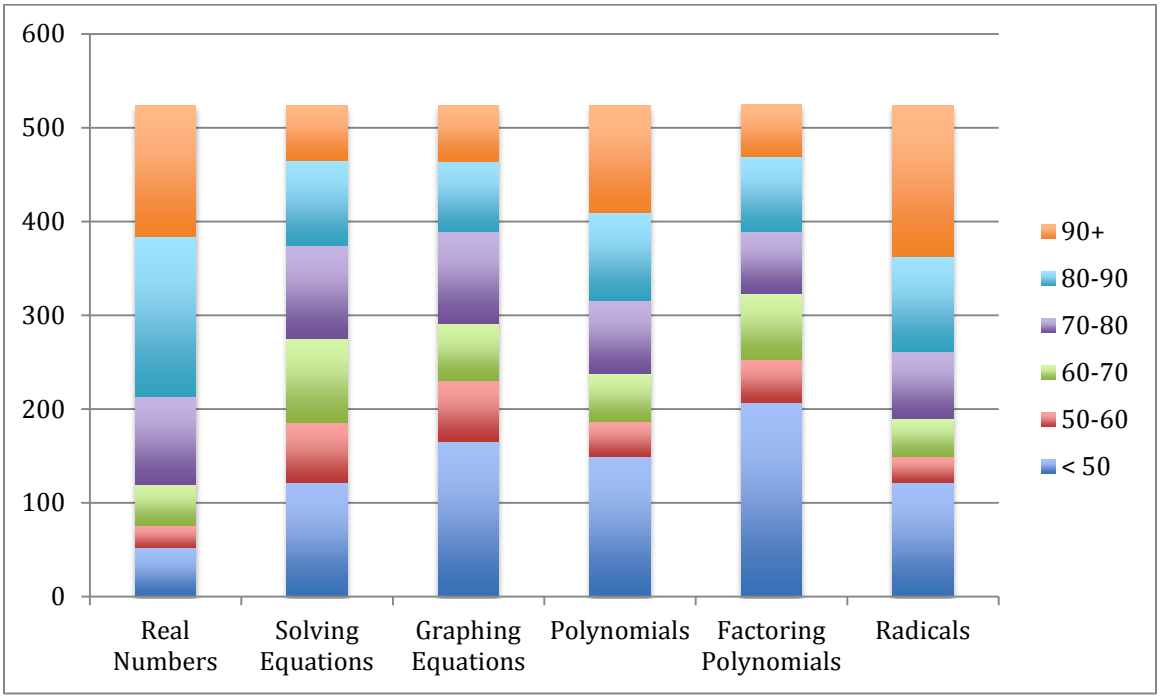
Semester: FALL 2013

REPORT DATE: 2/11/2014

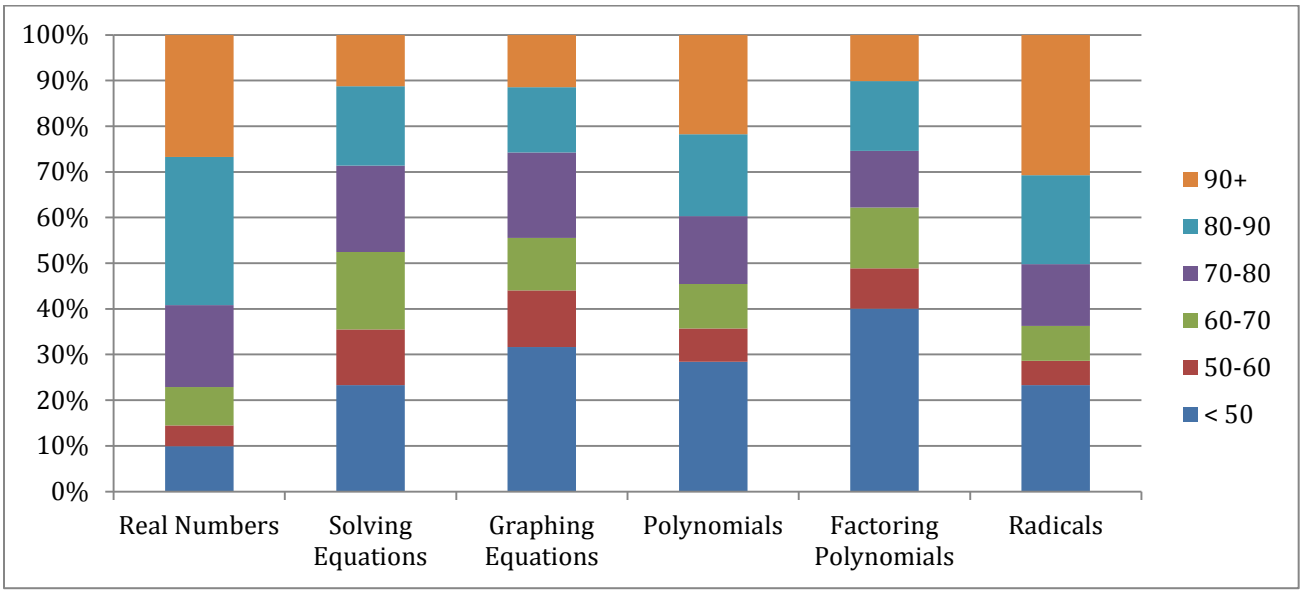
Student subject mastery is assessed through Chapter tests. Each Chapter covers one content area and the students are assessed on their mastery of each topic. The scores were grouped into categories by test score.

Number of students: 524
Number of sections: 12

Score	Real Numbers	Solving Equations	Graphing Equations	Polynomials	Factoring Polynomials	Radicals
< 50	52	122	166	149	210	122
50-60	24	64	65	38	46	28
60-70	44	89	60	51	70	40
70-80	94	99	98	78	65	71
80-90	170	91	75	94	80	102
90+	140	59	60	114	53	161
Total	524	524	524	524	524	524



Score	Real Numbers	Solving Equations	Graphing Equations	Polynomials	Factoring Polynomials	Radicals
< 50	10%	23%	32%	28%	40%	23%
50-60	5%	12%	12%	7%	9%	5%
60-70	8%	17%	11%	10%	13%	8%
70-80	18%	19%	19%	15%	12%	14%
80-90	32%	17%	14%	18%	15%	19%
90+	27%	11%	11%	22%	10%	31%
Total	100%	100%	100%	100%	100%	100%
Above 70	77%	48%	44%	55%	38%	64%



Discussion/Action/Closing the Loop:

This was the first semester using the Emporium model for this course. The Emporium model allows students to work independently with the teacher and graduate assistants as facilitators. Students can progress through the course at their own pace. The course enrolled 50 students per section and we discovered that class size was an issue. We were not able to give the students the necessary support within the class time, so we reduced the number of students to 35 students per section. The students are expected to complete this course with a grade of 65 or better, as this is a Pass/Fail course. We had a 73% pass rate.

Students showed the most difficulty in two Chapters: Graphing Linear Equations (32% scored below 50) and Factoring Polynomials (38% scored below 50). The faculty will be implementing several new techniques to improve the mastery of these topics. Students will be required to keep a notebook, which they will setup as a reference guide. They will be required to create sections for each chapter with all the formulas, properties and processes written out. They are to create reference guides for each topic that is covered, with an emphasis on Graphing Linear Equations and Factoring Polynomials. Each professor throughout the semester will review the notebooks. More instruction will be

given in the classroom on the topics that have proven to be more difficult for the students to master, instead of just working independently with the software. The faculty has also instituted at least one mandatory tutoring session prior to each test. This will allow the students to work in a small group environment with a knowledgeable tutor to work through any difficulties they are having with the material in each chapter. There will no longer be an individual test for Radicals, the topic will be tested on the cumulative final instead. This will allow for more time to be spent on Graphing Equations and Factoring Polynomials which have proven to be the most difficult concepts for students to master.

GES3 Solve problems using quantitative reasoning.

MATH1000 – Algebra for College Students

Semester: FALL 2013

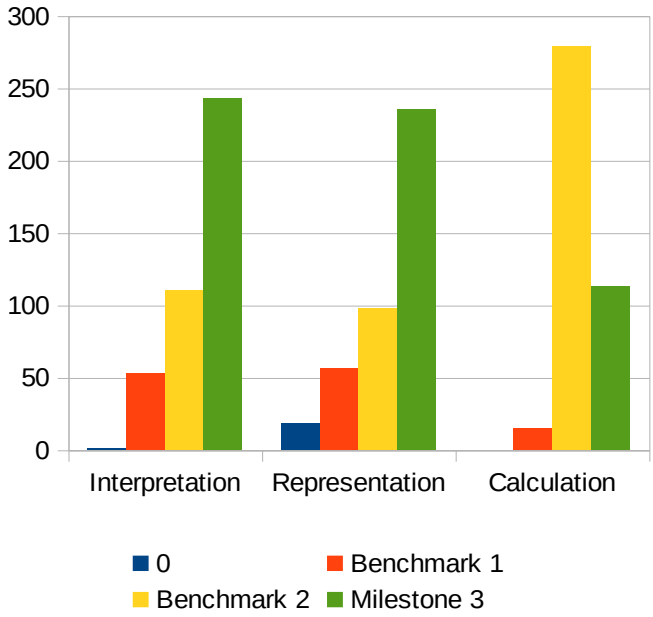
REPORT DATE: 1/13/2014

Algebra for College student is an introductory level algebra course that is the pre-requisite course for Pre-Calculus, Calculus I, etc., the mathematics series serving STEM programs and other higher level math requiring programs such as business, economics, etc. QR assessment was composed of selected questions given on the common final exam that were scored using the AAC&U Quantitative Literacy Value Rubric.

Number of students:
811 enrolled
407 assessed

Number of sections:
38 registered
21 assessed

Distribution of Scores



Mean scores overall:

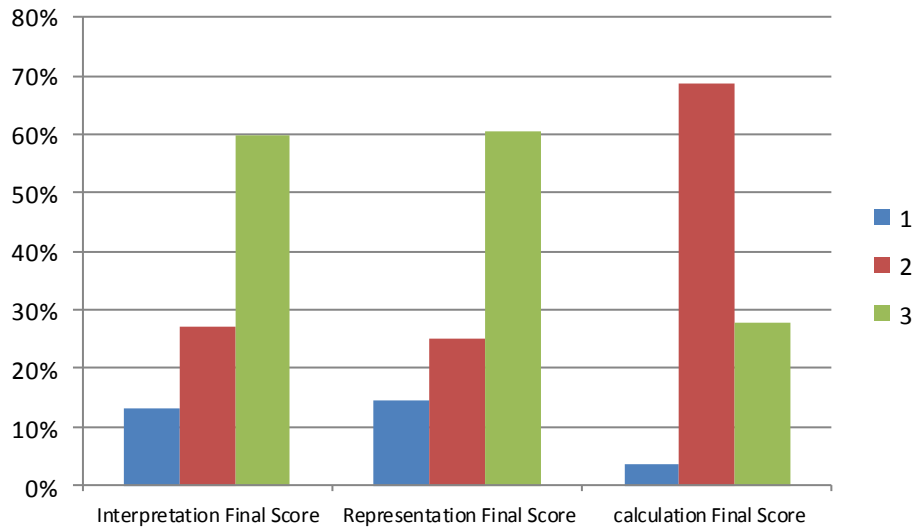
Criteria	Mean
Interpretation	2.4619
Representation	2.3514
Calculation	2.2408
Analysis	NA
Assumptions	NA
Communication	NA

	Interpretation	Representation	Calculation
0	1	18	0
Benchmark 1	53	56	15
Benchmark 2	110	98	279
Milestone 3	243	235	113
Total	407	407	407

Percentages of score

	Interpretation Final Score	Representation Final Score	Calculation Final Score
1	13%	14%	4%
2	27%	25%	69%
3	60%	60%	28%

Passing rate: level 3



Discussion/Action/Closing the Loop:

Background

Math1000, Algebra for College Students, is an introductory level algebra course that is the pre-requisite course for Pre-Calculus, and the Calculus series serving STEM programs and other higher level math requiring programs such as business, economics, etc. This course may be partially affected by the incorrect placement of students[1]. Additionally, nearly half (43% in fall 2013) of incoming first time full time freshmen at Kean are African American and/or Latino students[2]. Janellen's NJ Public Education Report[3] indicated that there is a wide gap in 8th grade between students of color and their white

1 Students in non-STEM programs etc are often required to take Math1000. The appropriateness and value of Math1000 for non-STEM programs needs to be reevaluated.

2 IR Profile: http://ir.kean.edu/irhome/Student/StuProfile/Student.asp?EDR=E&StuGrp=FR&Category=Eth

3 The State of New Jersey Public Education Report, Janellen Duffy, 2013 http://www.jerseycan.org/sites/jerseycan.org/files/research/reports/SoE2013/index.html

classmates in their mathematics skills. It is possible African American and Latino students at Kean are still struggling with their math courses. Math1000 is therefore heavily dependent on the learning outcomes of Math0901, the developmental course for students who are placed below college level math based on their Elementary Algebra Accuplacer® scores. Math1000 is a traditionally taught algebra course, where procedural fluency and calculation using traditional exercises is emphasized to provide students with the basic tools to succeed in the Calculus sequence.

Results Interpretation

The Quantitative Reasoning assessment was composed of selected questions given on the common final exam that were scored using the AAC&U Quantitative Literacy Value Rubric. The numbers of questions selected for interpretation, representation and calculation are 5, 5 and 15.

Students performed better on interpretation and representation rather than calculation. While 60% of Math1000 students met the expectation (level 3) on Interpretation and representation (60%), only 28% reached the passing line on calculation. This result is not surprising given the algebraic weaknesses that our students enter the university with. In order to improve student outcomes in Math1000 we need to focus on the following.

1. The institution has suggested that the Math department create Math0902 – a developmental math course for those who will be pursuing STEM subjects and will therefore need to proceed to Math1000. We will be working on this course in Spring 2014.

2. For the time being, coordinate and communicate with the GE department on ensuring Math1000 readiness of students who succeed in Math0901.

3. Coordinate and communicate with other (non-calculus sequence) programs in the university which require Math1000 to make sure that this course is an appropriate mathematics course for their students.

4. Study our current Math1000 curriculum and the respective mathematics education research to see what models for successful algebraic development could enhance algebra learning at Kean.

5. Continue to develop economical and effective means of communication and curriculum/pedagogy dispersion to our adjunct faculty to ensure uniformity of learning opportunities in all sections of the course.

Other Future Considerations

Develop/Initiate multiple longitudinal study(s) of student performance to answer the following questions:

- Do students who succeed (pass) Math0901 succeed in Math1000 (pass)?
- Do students who succeed in Math1000 (pass) succeed in Math1054 (or other higher level math courses)?
- What do students who succeed (pass) in Math0901 learn? (What skills and/or conceptual understanding do they have that those who do not pass do not have?)
- What do students who succeed (pass) Math1000 know or can do at the beginning of Math1000 that other students who fail do not? (What skills and/or conceptual understanding do they have that those who do not pass do not have?)
- Do our Accuplacer® cut scores function appropriately?

Quantitative Literacy VALUE Rubric

for more information, please contact value@aacu.org

Association of American Colleges and Universities

Definition

Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a "habit of mind," competency, and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone	Milestones		
	4	3	2	1
Interpretation *Ability to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words).*	Provides accurate explanations of information presented in mathematical forms. Makes appropriate inferences based on that information. *For example, accurately explain the trend data shown in a graph and make reasonable predictions regarding what the data suggest about future events.*	Provides accurate explanations of information presented in mathematical forms. *For instance, accurately explain the trend data shown in a graph.*	Provides somewhat accurate explanations of information presented in mathematical forms, but occasionally makes minor errors related to computations or units. *For instance, accurately explain trend data shown in a graph, but may miscalculate the slope of the trend line.*	Attempts to explain information presented in mathematical forms, but draws incorrect conclusions about what the information means. *For example, attempt to explain the trend data shown in a graph, but will frequently misinterpret the nature of that trend, perhaps by confusing positive and negative trends.*
Representation *Ability to convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words).*	Skillfully converts relevant information into an insightful mathematical portrayal in a way that contributes to a further or deeper understanding.	Competently converts relevant information into an appropriate and desired mathematical portrayal.	Completes conversion of information but resulting mathematical portrayal is only partially appropriate or accurate.	Completes conversion of information but resulting mathematical portrayal is inappropriate or inaccurate.
Calculation	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem. Calculations are also presented elegantly (clearly, concisely, etc.)	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem.	Calculations attempted are either unsuccessful or represent only a portion of the calculations required to comprehensively solve the problem.	Calculations are attempted but are both unsuccessful and are not comprehensive.
Application / Analysis *Ability to make judgments and draw appropriate conclusions based on the quantitative analysis of data, while recognizing the limits of this analysis.*	Uses the quantitative analysis of data as the basis for deep and thoughtful judgments, drawing insightful, carefully qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for competent judgments, drawing reasonable and appropriately qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for workmanlike (without inspiration or nuance, ordinary) judgments, drawing plausible conclusions from this work.	Uses the quantitative analysis of data as the basis for tentative, basic judgments, although is hesitant or uncertain about drawing conclusions from this work.
Assumptions *Ability to make and evaluate important assumptions in estimation, modeling, and data analysis.*	Explicitly describes assumptions and provides compelling rationale for why each assumption is appropriate. Shows awareness that confidence in final conclusions is limited by the accuracy of the assumptions.	Explicitly describes assumptions and provides compelling rationale for why assumptions are appropriate.	Explicitly describes assumptions.	Attempts to describe assumptions.
Communication *Expressing quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized).*	Uses quantitative information in connection with the argument or purpose of the work, presents it in an effective format, and explicates it with consistently high quality.	Uses quantitative information in connection with the argument or purpose of the work, though data may be presented in a less than completely effective format or some parts of the explication may be uneven.	Uses quantitative information, but does not effectively connect it to the argument or purpose of the work.	Presents an argument for which quantitative evidence is pertinent, but does not provide adequate explicit numerical support. (May use quasi-quantitative words such as "many," "few," "increasing," "small," and the like in place of actual quantities.)

GES3 Solve problems using quantitative reasoning.

MATH1010 Foundations of Math

Semester: FALL 2013

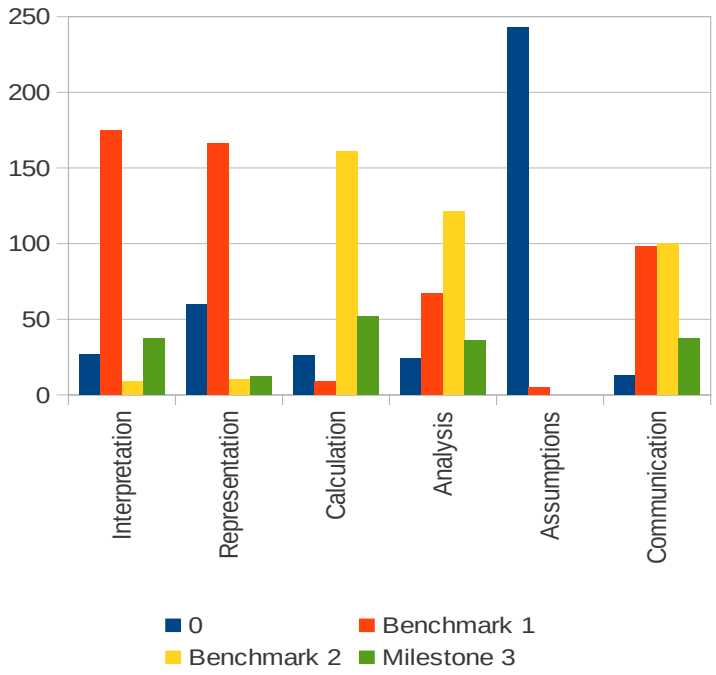
REPORT DATE: 1/13/2014

Foundations of Math is an introductory level mathematics course that serves non-stem/business majors such as liberal arts, education, or fine arts. QR assessment was composed of selected questions given on the third (and final) common exam scored by one instructor using the AAC&U Quantitative Literacy Value Rubric.

Number of students:
314 enrolled
248 completed
assessment (test 3)

Number of sections:
11 registered
11 assessed

Distribution of Scores



Mean scores overall:

Criteria	Mean
Interpretation	1.2258
Representation	0.8952
Calculation	1.9637
Analysis	1.6815
Assumptions	0.0202
Communication	1.6492

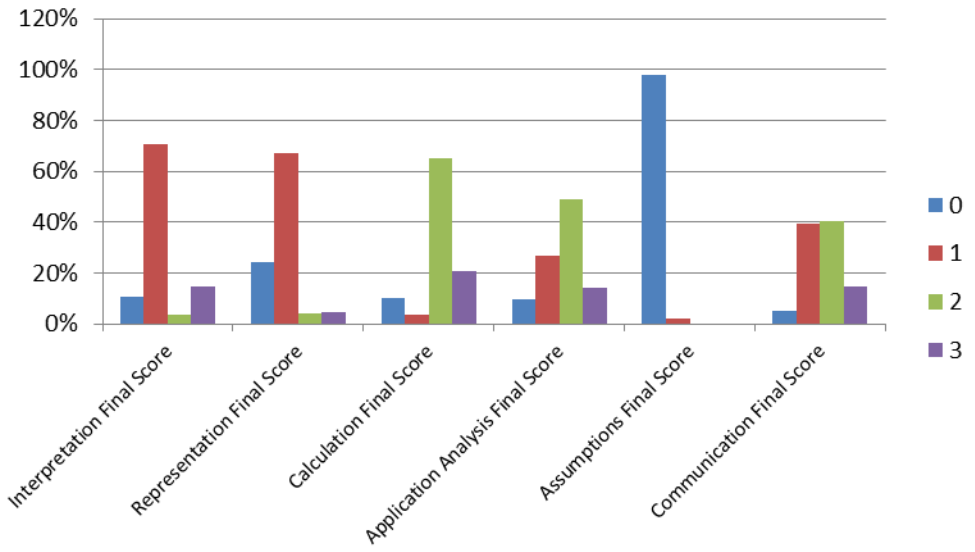
Distribution of Scores:

	Interpretation	Representation	Calculation	Analysis	Assumptions	Communication
0	27	60	26	24	243	13
Benchmark 1	175	166	9	67	5	98
Benchmark 2	9	10	161	121	0	100
Milestone 3	37	12	52	36	0	37
Total	248	248	248	248	248	248

Percentages of Score

	Interpretation Final Score	Representation Final Score	Calculation Final Score	Application Analysis Final Score	Assumptions Final Score	Communication Final Score
0*	11%	24%	10%	10%	98%	5%
1	71%	67%	4%	27%	2%	40%
2	4%	4%	65%	49%	0%	40%
3	15%	5%	21%	15%	0%	15%

**0: no response*



Discussion/Action/Closing the Loop:

Background

Math1010 is a terminal course developed for non-STEM majors (nor other programs such as business, economics, psychology, that require pre-calculus or higher level math.) Quantitative Reasoning in the context of this course we have defined as Proportional Reasoning. Our goal for our students is for them to be able to make reasonable proportional judgments within their fields of study (for example be able to compare the age of Egyptian or Chinese cultures with that of the US proportionally and have that comparison inform judgments about History, Politics, economic development, human rights, etc.) or in the context of their own economic and political lives (for example be able to judge the size of the US national debt, or compare proportionally local property tax rates to those of other states, etc.) To this end we focus Math1010 mathematical content on sets, number and numeral (especially rational numbers), linear equations, variation, geometrical (and other) formulas, percents, and probability. We then are in the process of embedding this content within realistic contexts that relate to a wide range liberal arts programs.

The Fall 2013 assessment was the first analysis of Math1010 students' learning based on the AAC&U Literacy Value Rubric applied to open-ended quantitative reasoning questions designed using data from 2 semesters of smaller pilot studies within Math1010 of proportional reasoning and open-ended problem solving.

Results Interpretation

1. Students show weakness in interpretation (15% met level 3) and representation (5% met level 3). This weakness is not surprising as students (in particular freshmen) may have had little experience with such problems and in answering such without typical categorical clues (test is on probability so interpret everything as probability etc.) Additionally, students may have had little experience explaining their thinking, conclusions, analysis[1] and must be given many more opportunities to practice these skills. To this end we must begin to revise the course curriculum and pedagogy as follows:

    - All assignments (Mathlab homework, quizzes, and tests) must be expanded/enriched with instructor designed open-ended authentic problems (at least one per assignment) that require students to go beyond calculation to explain their solution processes and reflect upon and evaluate their answers.

    - Class time must include additional practice with open-ended authentic problems and the analysis there of. To that end all quizzes will include open ended problems that will be reviewed and analyzed in class.

2. Students were successful with calculations on familiar problems but less so on problems with unfamiliar or not previously seen contexts. For example, 146 students reached Milestone 3 on a pay-cut pay raise question, while only 25 students reached Milestone 3 on the interpret the size of the National Debt question. In particular it is difficult to trigger students' multiplicative, and therefore

1 Majority of our student may not have experienced the Common Core Curriculum throughout their secondary education as the Common Core State Standards were adopted in NJ in 2010 (http://www.state.nj.us/education/sca/).

proportional thinking. Student' inappropriate use of solely additive thinking (59 students subtracted a sum of college tuition and of median income from 17.5 trillion and used that result to judge 17.5 trillion to be large) may originate from poor instruction on multiplication which defined multiplication as repeated addition instead of a unit-changing operation2 Therefore, students do not engage in multiplicative thinking in unit changing mathematical situations, rather they fall back on additive comparisons when asked to evaluate the size of a quantity. Within the topic of numbers we need to expand the curriculum to in particular explore the meaning of multiplication and the limits of additive comparison. This concept can be further reinforced and connected in the geometry, percent, and probability components of the course. Homework assignments must be expanded to underscore these connections.

3. Students were least ready to address the assumptions underlying quantitative situations. We do not address assumptions at all in most of Math1010 content. Up to this point we have been satisfied with discussion of assumptions mostly left to Statistics (Math1016). Assumptions, however, are particularly important in probability (especially in thinking about the difference between theoretical and empirical probability) and in large scale estimations (for example the size of the National Debt, US population, etc.) We need to evaluate our current curriculum to see how we can introduce, connect, and emphasize the consideration of assumptions throughout the content of Math1010.

4. Students were very willing to analyze and make judgments but often based their opinions on previous experiences and not on the quantitative information within the problems or their solutions. Again, we can begin to address this weakness by including open-ended problems throughout our curriculum and providing student with opportunities to practice throughout the course (see 1).

5. Continue to develop economical and effective means of communication and curriculum/pedagogy dispersion to our adjunct faculty to insure uniformity of learning opportunities in all sections of the course.

Other Future Considerations

1. Align our course curriculum and pedagogy with the needs of relevant programs. Initiate cross program discussion(s) of GE level quantitative reasoning and use it to improve our courses.

2. Explore developing 2 new (offshoots) GE mathematics courses:

    - Math for elementary school teachers
    - Math for fine and performing arts

3. Review entire Math1010 curriculum and use of Mathlab.

2 http://www.maa.org/external_archive/devlin/devlin_06_08.html

Appendix – Assessment Questions

1. The current U.S. National Debt is about 17.2 trillion dollars ($17,200,000,000,000). Use some or all of the information below to make sense of the National Debt, then type your answer to the questions below:

In-State Kean University Tuition, Books, Fees, Room & Board (2012):	$ 29,515
Out-of-state Kean University Tuition, Books, Fees, Room & Board (2012):	$ 35,557
Median Price of a New Home Sold in United States (2010):	$221,800
Average Student Loan Debt for U.S. Undergraduates (2010):	$ 25,119
Median U.S. household income, (2007-2011)	$ 52,762

In your opinion, is the U.S. National Debt large or small? Can you describe how large or how small? Show any and all calculations you do below. Explain your reasoning as clearly as possible.

2. Rhena's salary is $45,000.00 a year at her first job, but unfortunately the bad economy results in all employees getting a 15% pay cut for 2011. Then in 2013 because things get better, everyone gets a 15% pay raise. Why is Rhena's 2013 salary NOT $45,000.00 like it was before the pay cut in 2011? Explain and support your explanation with appropriate calculations!

3. Consider the following two events:

Event A
You watch a news program during which a US Senator rails against wasteful government spending. Two video clips are shown of this politician. In the first he is shown giving a speech at a political fund-raiser complaining about the spending of 40 million dollars on highway improvements. In the second clip he is giving a speech at a rally where he mentions the same highway spending, but this time he says 40 billion dollars is being wasted.

Event B
You decide to grab a quick meal at a McDonald's drive-through and order 3 items from the dollar menu; small fries, a double cheeseburger, and a small coke. When you pull up to the window to pay, the cashier asks you for 3 thousand dollars instead of the 3 dollars that you were expecting. These two situations present obvious mistakes, but are these mistakes equally bad? Are they similar or different? How similar? How different? Is one situation (mistake) worse than the other? Explain as fully as possible!

4. Suppose that in Lottery A you have to choose 6 numbers from 1-69, and in Lottery B you have to choose 7 numbers from 1-55. Which lottery would you rather play and why? Justify your answer by calculating the probability (or odds) of winning in BOTH lotteries.

Quantitative Literacy VALUE Rubric

for more information, please contact value@aacu.org

Association of American Colleges and Universities

Definition

Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a "habit of mind," competency, and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone	Milestones		
	4	3	2	1
Interpretation *Ability to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words).*	Provides accurate explanations of information presented in mathematical forms. Makes appropriate inferences based on that information. *For example, accurately explain the trend data shown in a graph and make reasonable predictions regarding what the data suggest about future events.*	Provides accurate explanations of information presented in mathematical forms. *For instance, accurately explain the trend data shown in a graph.*	Provides somewhat accurate explanations of information presented in mathematical forms, but occasionally makes minor errors related to computations or units. *For instance, accurately explain trend data shown in a graph, but may miscalculate the slope of the trend line.*	Attempts to explain information presented in mathematical forms, but draws incorrect conclusions about what the information means. *For example, attempt to explain the trend data shown in a graph, but will frequently misinterpret the nature of that trend, perhaps by confusing positive and negative trends.*
Representation *Ability to convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words).*	Skillfully converts relevant information into an insightful mathematical portrayal in a way that contributes to a further or deeper understanding.	Competently converts relevant information into an appropriate and desired mathematical portrayal.	Completes conversion of information but resulting mathematical portrayal is only partially appropriate or accurate.	Completes conversion of information but resulting mathematical portrayal is inappropriate or inaccurate.
Calculation	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem. Calculations are also presented elegantly (clearly, concisely, etc.)	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem.	Calculations attempted are either unsuccessful or represent only a portion of the calculations required to comprehensively solve the problem.	Calculations are attempted but are both unsuccessful and are not comprehensive.
Application / Analysis *Ability to make judgments and draw appropriate conclusions based on the quantitative analysis of data, while recognizing the limits of this analysis.*	Uses the quantitative analysis of data as the basis for deep and thoughtful judgments, drawing insightful, carefully qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for competent judgments, drawing reasonable and appropriately qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for workmanlike (without inspiration or nuance, ordinary) judgments, drawing plausible conclusions from this work.	Uses the quantitative analysis of data as the basis for tentative, basic judgments, although is hesitant or uncertain about drawing conclusions from this work.
Assumptions *Ability to make and evaluate important assumptions in estimation, modeling, and data analysis.*	Explicitly describes assumptions and provides compelling rationale for why each assumption is appropriate. Shows awareness that confidence in final conclusions is limited by the accuracy of the assumptions.	Explicitly describes assumptions and provides compelling rationale for why assumptions are appropriate.	Explicitly describes assumptions.	Attempts to describe assumptions.
Communication *Expressing quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized).*	Uses quantitative information in connection with the argument or purpose of the work, presents it in an effective format, and explicates it with consistently high quality.	Uses quantitative information in connection with the argument or purpose of the work, though data may be presented in a less than completely effective format or some parts of the explication may be uneven.	Uses quantitative information, but does not effectively connect it to the argument or purpose of the work.	Presents an argument for which quantitative evidence is pertinent, but does not provide adequate explicit numerical support. (May use quasi-quantitative words such as "many," "few," "increasing," "small," and the like in place of actual quantities.)

Appendix rubric

GES3: Solve problems using Quantitative Reasoning

MATH 1016- Statistics

Semester: FALL 2013

REPORT DATE: 1/8/2014

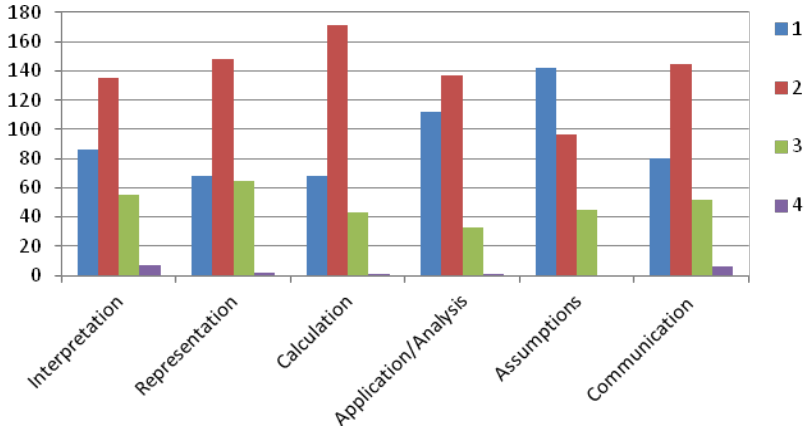
Quantitative Reasoning is assessed in Math 1016 based on the student's final project using the AAC&U Quantitative Literacy Value Rubric. The project and rubric were used in all sections of the course. This statistics course has students at the Freshman through Senior level. The course serves as an introduction to descriptive and inferential statistics. The topics include graphical representation of data, characteristics of distributions, statistical models, correlation, regression, confidence intervals and hypothesis testing. Math 1016 focuses on techniques and application rather than theory. It is a blend of collaborative learning, technology, written and oral reports. Attention focuses on student understanding of the uses of statistics and the correct application and analysis of statistical methods and results.

Number of students: 283
Number of sections: 11

Analysis:

Criteria	Mean	Median
Interpretation	1.94	2
Representation	2.00	2
Calculation	1.92	2
Application/ Analysis	1.73	2
Assumptions	1.66	1
Communication	1.94	2

Distribution of Scores:



Analysis:

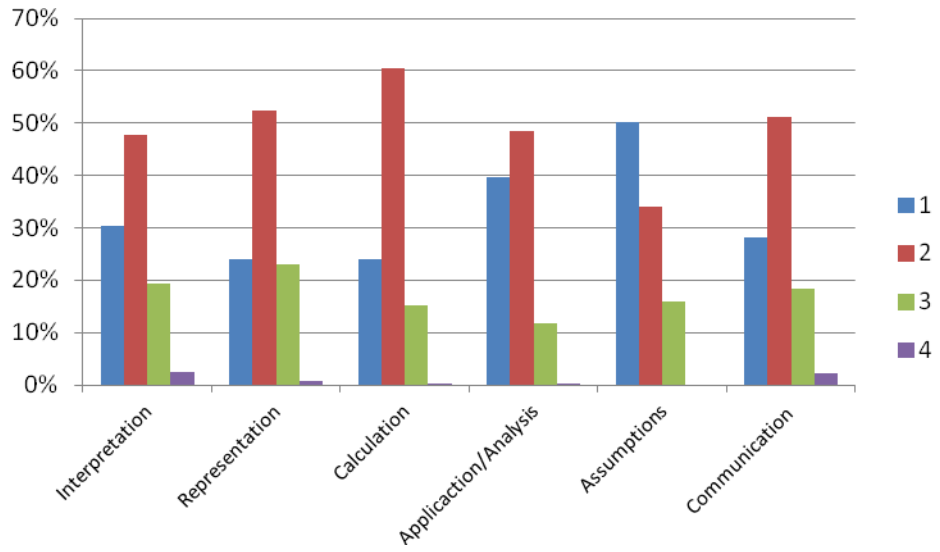
Criteria	Scored at level 2 or above
Interpretation	70%
Representation	76%
Calculation	76%
Application/ Analysis	60%
Assumptions	50%
Communication	72%

Distribution of Scores:

	Interpretation	Representation	Calculation	Application/ Analysis	Assumptions	Communication
1	86	68	68	112	142	80
2	135	148	171	137	96	145
3	55	65	43	33	45	52
4	7	2	1	1	0	6
Total	283	283	283	283	283	283

Percentages of score

	Interpretation	Representation	Calculation	Application/ Analysis	Assumptions	Communication
1	30%	24%	24%	40%	50%	28%
2	48%	52%	60%	48%	34%	51%
3	19%	23%	15%	12%	16%	18%
4	2%	1%	0%	0%	0%	2%
Score at level 2 or above	70%	76%	76%	60%	50%	72%



Discussion/Action/Closing the Loop:

At the end of this course the student is responsible for completing a final project. In this project they must create the statistical test, gather and analysis data, draw conclusions, make predictions and communicate the results (See the appendix for the guidelines of the project). These finding are written in a paper and presented to the class. As the initial implementation of this rubric to the final paper it was assumed that the course would fall around low intermediate level, with an average score of 2. The content of the course is set and delivered in such a way that a score of 2 on the rubric is a reasonable expectation.

The students do best in their ability to convert information/data into graphs and equations and to perform calculations; with over 75% of the students reaching or exceeding the expected level 2. This concept is seen when the data is put into the scatterplot, the regression line is calculated and then used to make predictions. The students scored the lowest in their ability to make assumptions (50% failed to meet level 2), followed by application/analysis (40% failed to meet level 2).

To hopefully improve this weakness with assumptions, specific lessons will be designed that go into more detail on this topic. There are many assumptions involved in linear regression. To date, so far, the discussion has been predominately on assumptions involving the sample; that is large enough and is it representative of the population. We will now introduce and focus on another assumption- that all predictors are linearly independent. These models will be used throughout all sections in the upcoming Spring semester, by incorporating this new concept into classwork, homework and the final project. Also, we will better define the assumption requirement in the final project guidelines.

There will be two changes put into effect this Spring semester to better improve teaching and learning. First, there will be departmental group work and hands on activities, beside the project, that will be used in every section of the course. A student learns best when actively engaged in the process. Second, all faculty teaching this course will meet once a month; with a focus on the topic of assumptions and rubric norming. These meetings will also serve as a time for collaborative discussions on the best, and worst, practices in the classroom.

Quantitative Literacy VALUE Rubric

for more information, please contact value@aacu.org

Association of American Colleges and Universities

Definition

Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a "habit of mind," competency, and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	Milestones 3	2	1
Interpretation *Ability to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words).*	Provides accurate explanations of information presented in mathematical forms. Makes appropriate inferences based on that information. *For example, accurately explain the trend data shown in a graph and make reasonable predictions regarding what the data suggest about future events.*	Provides accurate explanations of information presented in mathematical forms. *For instance, accurately explain the trend data shown in a graph.*	Provides somewhat accurate explanations of information presented in mathematical forms, but occasionally makes minor errors related to computations or units. *For instance, accurately explain trend data shown in a graph, but may miscalculate the slope of the trend line.*	Attempts to explain information presented in mathematical forms, but draws incorrect conclusions about what the information means. *For example, attempt to explain the trend data shown in a graph, but will frequently misinterpret the nature of that trend, perhaps by confusing positive and negative trends.*
Representation *Ability to convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words).*	Skillfully converts relevant information into an insightful mathematical portrayal in a way that contributes to a further or deeper understanding.	Competently converts relevant information into an appropriate and desired mathematical portrayal.	Completes conversion of information but resulting mathematical portrayal is only partially appropriate or accurate.	Completes conversion of information but resulting mathematical portrayal is inappropriate or inaccurate.
Calculation	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem. Calculations are also presented elegantly (clearly, concisely, etc.)	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem.	Calculations attempted are either unsuccessful or represent only a portion of the calculations required to comprehensively solve the problem.	Calculations are attempted but are both unsuccessful and are not comprehensive.
Application / Analysis *Ability to make judgments and draw appropriate conclusions based on the quantitative analysis of data, while recognizing the limits of this analysis.*	Uses the quantitative analysis of data as the basis for deep and thoughtful judgments, drawing insightful, carefully qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for competent judgments, drawing reasonable and appropriately qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for workmanlike (without inspiration or nuance, ordinary) judgments, drawing plausible conclusions from this work.	Uses the quantitative analysis of data as the basis for tentative, basic judgments, although is hesitant or uncertain about drawing conclusions from this work.
Assumptions *Ability to make and evaluate important assumptions in estimation, modeling, and data analysis.*	Explicitly describes assumptions and provides compelling rationale for why each assumption is appropriate. Shows awareness that confidence in final conclusions is limited by the accuracy of the assumptions.	Explicitly describes assumptions and provides compelling rationale for why assumptions are appropriate.	Explicitly describes assumptions.	Attempts to describe assumptions.
Communication *Expressing quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized).*	Uses quantitative information in connection with the argument or purpose of the work, presents it in an effective format, and explicates it with consistently high quality.	Uses quantitative information in connection with the argument or purpose of the work, though data may be presented in a less than completely effective format or some parts of the explication may be uneven.	Uses quantitative information, but does not effectively connect it to the argument or purpose of the work.	Presents an argument for which quantitative evidence is pertinent, but does not provide adequate explicit numerical support. (May use quasi-quantitative words such as "many," "few," "increasing," "small," and the like in place of actual quantities.)

Math 1016- Section _____ Fall 2013
Name:_____

MATH 1016 PROJECT
(to be calculated out of a total of 40 points)

Partner(s) in your group:_____

Choose an option: (1) Regression (2) Hypothesis Test

Topic:_____

Partner, Option and Topic in by due date:_____ (5 points)

Outline in by due date:_____(5 points)

Rough draft in by due date:_____ _(5 points)

Presentation:_____ (10 points)

Paper:_____(10 points)

Participation_____(5 points)

Math 1016 Project- Fall 2012

Choose from one of the following topics:

1) **Regression Analysis**

Step One- Form a small team of classmates (2 – 3)

Step Two- Choose a topic of interest

Example: A topic that interests me is shopping. I want to see if there is a relationship between a person's age and the total amount of money he/she spends on Holiday shopping. Does age determine the amount of money someone spends? If so, is the older someone is mean that more money is spent... or is the opposite true?

Step Three- Get your data. Decide if you are using data off the internet or collecting your own data.

Step Four- Make a scatterplot of the data. Identify the independent and dependent variables.

Step Five- Regression Analysis. Calculate the correlation coefficient, regression line and equation. You must show the scatterplot with the regression line.

Step Six- Conclusions. What does the correlation coefficient tell you? Is it negative or positive? Do you see a trend in the data? Make a future prediction.

Step Seven- Write a brief paper (1 ½ - 2 pages) describing your topic, your data, what you wanted to prove and the conclusions.

Step Eight- Project presentation to class and answer any questions from fellow students

NOTE:

- The most important part of any analysis is asking questions and collecting the data. Therefore, to get the entire experience you should gather your own data to analyze. However, you are allowed to get data from the internet, but **you** must be the one who creates the data set and comes up with the analysis.
- Excellent projects start with well thought out ideas. The most important thing is choosing a topic that has meaning to you. What is important to you?
- If the data is collected from the internet you must supply the website where it was found. If you use any books or the internet for any information- you must have a bibliography page.
- Each person in the group must type an anonymous "who did what" page, fold it in thirds, and turn it in at the end of their presentation.
- You are responsible for helping to grade others presentations. If you miss class on the days of other group's presentations you will lose points.

- Your project will be graded as follows:
  1) Partner and topic choice by due date……..5pts
  2) Outline by due date……5pts
  3) Rough draft by due date……5pts
  4) Final paper……10pts
  5) Presentation……10pts
  6) Participation with other's presentations……..5pts

GES3 Solve problems using quantitative reasoning.

MATH1030 Problem Solving

Semester: FALL 2013

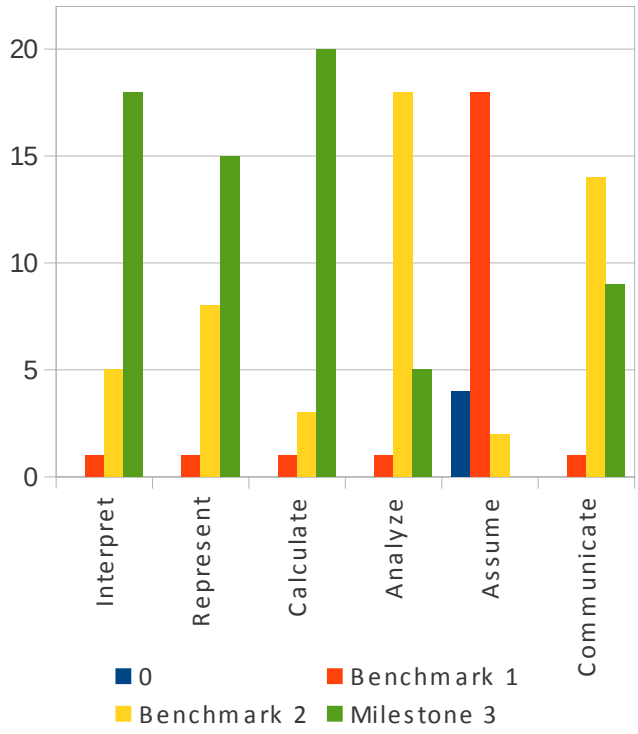
REPORT DATE: 1/13/2014

Problem solving is an introductory level mathematics course that serves non-stem/business majors such as liberal arts, education, or fine arts. QR assessment was composed of selected portfolio problem evaluation scored holistically by one instructor using the AAC&U Quantitative Literacy Value Rubric.

Number of students:
27 enrolled
24 completed assessment
(final portfolio)

Number of sections:
1 registered
1 assessed

Distribution of Scores



Mean scores overall:

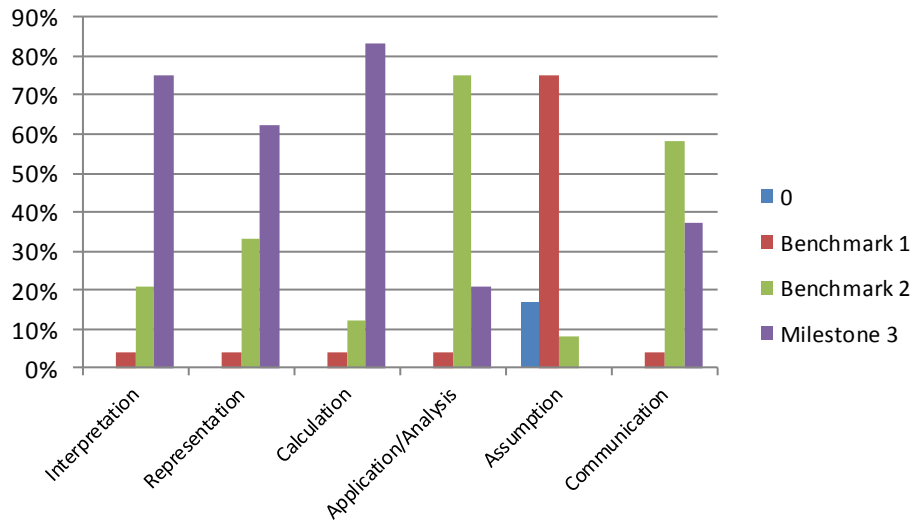
Criteria	Mean
Interpretation	2.708
Representation	2.583
Calculation	2.792
Analysis	2.167
Assumptions	0.917
Communication	2.333

Distribution of Scores:

	Interpret	Represent	Calculate	Analyze	Assume	Communicate
0	0	0	0	0	4	0
Benchmark 1	1	1	1	1	18	1
Benchmark 2	5	8	3	18	2	14
Milestone 3	18	15	20	5	0	9
Total	24	24	24	24	24	24

Percentages of score

	Interpretation	Representation	Calculation	Application/ Analysis	Assumption	Communication
0	0%	0%	0%	0%	17%	0%
Benchmark 1	4%	4%	4%	4%	75%	4%
Benchmark 2	21%	33%	13%	75%	8%	58%
Milestone 3	75%	63%	83%	21%	0%	38%



Discussion/Action/Closing the Loop:

Background

Math1030 is a terminal course developed for non-STEM majors (nor other programs such as business, economics, psychology, that require pre-calculus or higher level math.) Quantitative Reasoning in the context of this course has not been defined. Our goals for our students in this course are for them to become more flexible problem solvers, to develop meta-cognitive skills in analysis of their own problem solving approaches, processes, and solutions. To this end we focus in Math1030 on non-traditional problems, puzzles, problems with extraneous information, problems with missing information, logic problems, paradoxes, and some light proofs and proofs without words. The mathematical content includes algebra, number theory, logic, applications, geometry, number theory, and other varied topic that students may themselves contribute. We are in the early process of developing this course and fine-tuning the assignments. The students who take this course can have a very wide range of mathematical background, but occasionally may include Computer Science majors as well as Liberal Arts. The most complex pedagogical and content task for this course is to include enough problems on many levels so that students with very poor procedural skills as well as those with advanced mathematical knowledge can both learn and succeed, perhaps while working on problems with highly differing levels of mathematical content knowledge.

The Fall 2013 assessment was the first analysis of Math1030 students' learning based on the AAC&U Literacy Value Rubric applied to students' final portfolios[1]. We have to interpret these results with great caution as students did have the opportunity to revise their work.

Results Interpretation

1. Students' scores were much higher than those from Math1010. One explanation could be that students reviewed and revised their work and so they performed better than in a timed-testing situation. Additionally, the focus in this class was on constantly explaining, analyzing, and sharing a relatively small set of challenging problems (not exercises), so the students had a lot more practice communicating, interpreting, representing, and analyzing the problems and their solutions.

2. Students performed the best on Calculation. 83% demonstrate their calculation skills at level 3. Calculation was less emphasized (in the sense that it was not the 'end' of the solving process but rather the beginning or midpoint), but that also may have strengthened students' performance on this aspect. Also, again, students had multiple tries to get a problem 'right', so the relatively high rate of performance in calculation may not really be comparable to calculation in Math1010 or other GE math courses.

3. Students performed the lowest on assumption. No student met level 3 with 75% at level 1 and 8% at level 2. Assumptions were not explicitly discussed and therefore that low score is consistent with the course context. More thought has to be given to assumptions in problem analysis and discussions, however, students in this course did score better on the Assumption facet of the rubric than students in Math1010.

4. This course in particular offers us a great opportunity to innovate and tailor the math content to the needs and interests of the students.

5. In the Spring 2014 semester we should be able to:

- complete constructing the course (finalize a list of core existing problems) and core assignments
- develop the portfolio guidelines into a portfolio rubric that aligns well with the AAC&U Quantitative Literacy Value Rubric and the AAC&U Problem Solving Value Rubric.

Other Future Considerations

1. Align our course curriculum and pedagogy with the needs of relevant programs. Initiate cross program discussion(s) of GE level quantitative reasoning and use it to improve our courses.

2. Explore developing multiple grouped sections of this course – one for Computer Science majors, the other for Liberal Arts students.

3. Apply also the Problem Solving Rubric in Math1030.

1 See Appendix page for general portfolio requirements.

Quantitative Literacy VALUE Rubric

for more information, please contact value@aacu.org

Association of American Colleges and Universities

Definition

Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a "habit of mind," competency, and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone	Milestones		
	4	3	2	1
Interpretation *Ability to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words).*	Provides accurate explanations of information presented in mathematical forms. Makes appropriate inferences based on that information. *For example, accurately explain the trend data shown in a graph and make reasonable predictions regarding what the data suggest about future events.*	Provides accurate explanations of information presented in mathematical forms. *For instance, accurately explain the trend data shown in a graph.*	Provides somewhat accurate explanations of information presented in mathematical forms, but occasionally makes minor errors related to computations or units. *For instance, accurately explain trend data shown in a graph, but may miscalculate the slope of the trend line.*	Attempts to explain information presented in mathematical forms, but draws incorrect conclusions about what the information means. *For example, attempt to explain the trend data shown in a graph, but will frequently misinterpret the nature of that trend, perhaps by confusing positive and negative trends.*
Representation *Ability to convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words).*	Skillfully converts relevant information into an insightful mathematical portrayal in a way that contributes to a further or deeper understanding.	Competently converts relevant information into an appropriate and desired mathematical portrayal.	Completes conversion of information but resulting mathematical portrayal is only partially appropriate or accurate.	Completes conversion of information but resulting mathematical portrayal is inappropriate or inaccurate.
Calculation	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem. Calculations are also presented elegantly (clearly, concisely, etc.)	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem.	Calculations attempted are either unsuccessful or represent only a portion of the calculations required to comprehensively solve the problem.	Calculations are attempted but are both unsuccessful and are not comprehensive.
Application / Analysis *Ability to make judgments and draw appropriate conclusions based on the quantitative analysis of data, while recognizing the limits of this analysis.*	Uses the quantitative analysis of data as the basis for deep and thoughtful judgments, drawing insightful, carefully qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for competent judgments, drawing reasonable and appropriately qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for workmanlike (without inspiration or nuance, ordinary) judgments, drawing plausible conclusions from this work.	Uses the quantitative analysis of data as the basis for tentative, basic judgments, although is hesitant or uncertain about drawing conclusions from this work.
Assumptions *Ability to make and evaluate important assumptions in estimation, modeling, and data analysis.*	Explicitly describes assumptions and provides compelling rationale for why each assumption is appropriate. Shows awareness that confidence in final conclusions is limited by the accuracy of the assumptions.	Explicitly describes assumptions and provides compelling rationale for why assumptions are appropriate.	Explicitly describes assumptions.	Attempts to describe assumptions.
Communication *Expressing quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized).*	Uses quantitative information in connection with the argument or purpose of the work, presents it in an effective format, and explicates it with consistently high quality.	Uses quantitative information in connection with the argument or purpose of the work, though data may be presented in a less than completely effective format or some parts of the explication may be uneven.	Uses quantitative information, but does not effectively connect it to the argument or purpose of the work.	Presents an argument for which quantitative evidence is pertinent, but does not provide adequate explicit numerical support. (May use quasi-quantitative words such as "many," "few," "increasing," "small," and the like in place of actual quantities.)

Appendix Rubric

Appendix – Math 1030 – Portfolio Checklist

Your portfolio should include 12 to 24 problems (or more depending on length/difficulty[2]) and should follow the following guidelines:

- **You must include at least one solution using at least 10 of the following problem-solving strategies.**

Look for a pattern (algebra) ☐

Draw a diagram (picture proof/explanation) ☐

Concrete representations
(draw, take pictures of various stages of the solution) ☐
- Act it out
- Make a model
- Use a manipulative

Eliminate possibilities ☐

Guess and test ☐

Work a related problem (solve a concrete first, etc.) ☐

Work backwards ☐

Simplify and/or solve a subproblem ☐

Experiment or simulate ☐

Organize data ☐
- List systematically
- Draw a graph
- Scale a drawing

Use matix logic ☐

Change focus ☐
- Change point of view
- Solve a complementary problem
- Change representation

Other (personal inventions) ☐

2

 In general *2 small problems = 1 large problem*, but many interesting solutions to one small problem can equal a big problem, or generalizing or creating variations of small problems can equal a big problem, check with me to make sure.

- **You must solve at least 5 problems in 2 or more ways (ie. Using 2 or more different strategies).**

  ☐ ☐ ☐ ☐ ☐

- **Your problem write-ups must include:**

  i. statement of the problem
  ii. solution (or two) written out in detail (err on the side of saying too much)
  iii. meta-cognitive commentary on your solution process that answers the following questions:
     a) What errors (if any) and/or difficulties did you make/have while solving the problem?
     b) What generalizations can you make about similar problems and their solutions?
     c) What method of solution is *best* for this problem? *(consider efficiency of solutions, clarity of solution process, insight generating solution, ease of generalizing the solution, ease of understanding the solution, and transfer to other problems of the solution process)*
     d) What insights into your own thinking did you develop while working on this problem?

- **Your portfolio must include a final summary:**
  Discuss and reflect on the entire course.
  - What did you learn? What did you not learn?
  - What insights about your own problem-solving thinking did you develop?
  - What insights about your own mathematical thinking did you develop?
  - What insights about mathematics (or some particular subsection of mathematics) did you develop?
  - Do you approach problems outside this class (in *real* life or other classes) differently now?
  - Do you see progress in your thinking and problem solving in your portfolio?
  - What kinds of problems did you enjoy the most? The least?
  - What problem strategies appealed to you the most? The least?
  - What problem strategies do you think you are good at? Not so good at?
  - What did you enjoy the most in class? The least?
  - What problems do you think we should eliminate from the course? What problems should we add?
  - Closing thoughts about anything.

GES3: Solving problems using Quantitative Reasoning

Math 1054 –Precalculus

Semester: FALL 2013

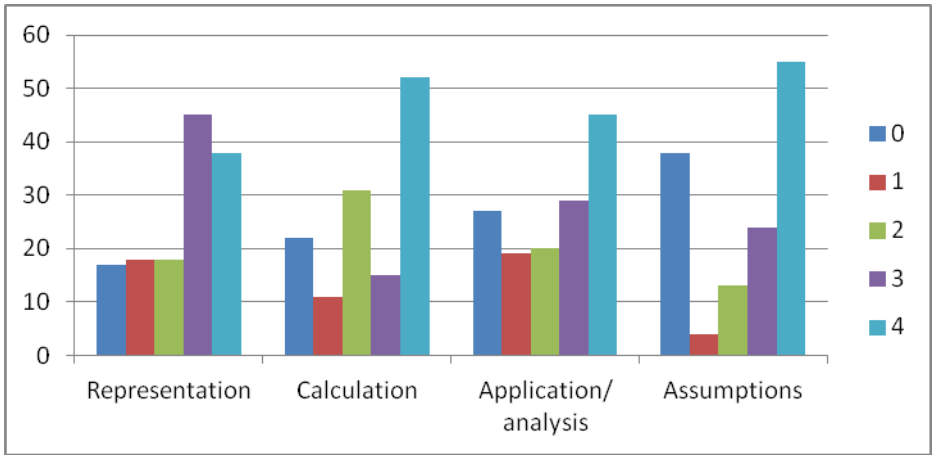
REPORT DATE: 1/9/2014

Quantitative Reasoning is assessed in Math 1054, based on embedded questions on the final exam, using the AAC&U Quantitative Literacy Value Rubric. This precalculus course has students at the Freshmen through Senior level. The topics covered include polynomial, rational, exponential and logarithmic functions. Topics also include trigonometric functions with emphasis on trigonometric identities and trigonometric analysis. Students are also exposed to problem solving methods. Math 1054 serves as a rigorous prerequisite to the study of calculus.

Number of students: 288
Number of sections: 14

Number of students reporting : 140
Number of sections reporting: 7

Distribution of Scores:



Mean scores overall:

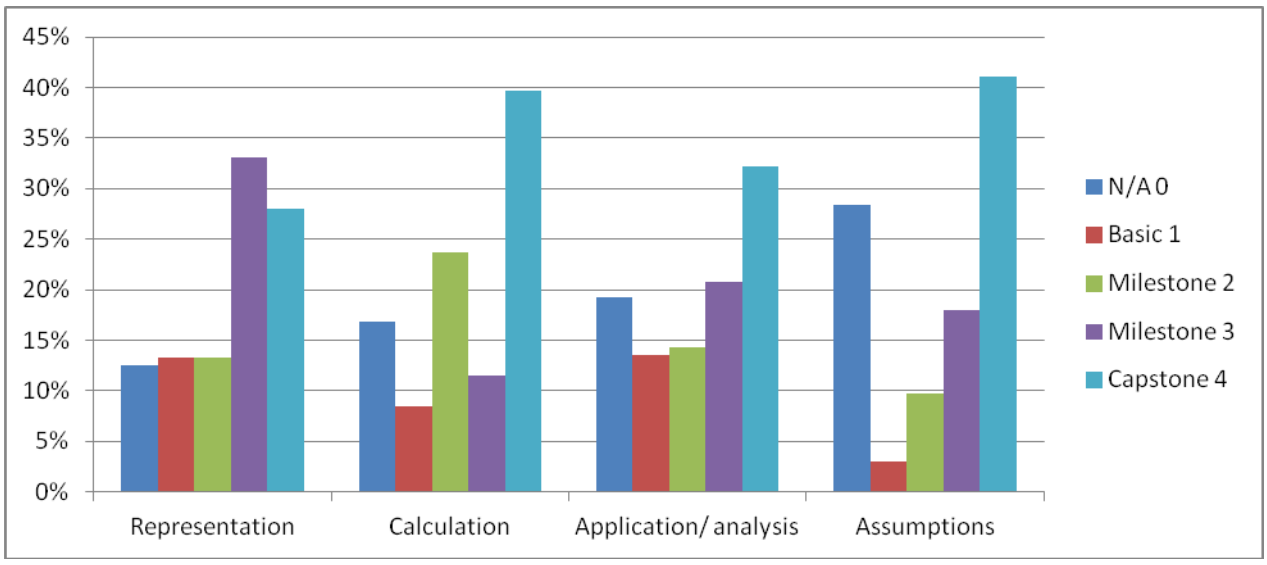
Criteria	Mean
Representation	2.51
Calculation	2.49
Application	2.33
Assumption	2.40

Distribution of Scores: Frequency by Score

Score	Representation	Calculation	Application/ analysis	Assumptions
N/A 0	17	22	27	38
Basic 1	18	11	19	4
Milestone 2	18	31	20	13
Milestone 3	45	15	29	24
Capstone 4	38	52	45	55
TOTAL	136	131	140	134

Percentage by Score:

Level	Representation	Calculation	Application/ analysis	Assumptions
N/A 0	13%	17%	19%	28%
Basic 1	13%	8%	14%	3%
Milestone 2	13%	24%	14%	10%
Milestone 3	33%	11%	21%	18%
Capstone 4	28%	40%	32%	41%
Level 3-4	61%	51%	53%	59%
Below level 2	26%	25%	33%	31%



Analysis

Across the different criteria, the data shows a bimodal distribution with many students at the extreme ends, and fewer with level of 1 and 2. In this case, mean is no longer a good indicator for performance comparison.

The weakest area for Math1054 students is assumptions, for which 28% of the students failed below basic level (level 1). However, there are also 41% of the students who reached level 4 on assumption assessment. The second weak area is application, for which 19% failed below basic level 1 and 14% just reach basic level.

Compared with assumptions and application, students seem more comfortable at representation and calculation. More than half (51%) reached level 3 or higher on calculations and 61% reached level 3-4 on representation. Meanwhile it should not be ignored that about one quarter of the students failed to meet basic level 2 on calculation (25%) and representation (26%).

Discussion/Action/Closing the Loop:

Precalculus is a standard mathematical course and the assessment items were embedded into the final exam across the sections. The problems selected covered the following:

- Representation of exponential functions using tables and graphs
- Calculation of a quantity by solving a logarithmic equation
- Analysis of a polynomial root finding problem
- Assumptions to be made when solving a problem using properties of triangles

All sections used the same questions and a common rubric. A grade of 0 to 4 was assigned for each item. A 4 indicated complete mastery, a 3 indicated conceptual mastery, but with some minor errors. A 2 indicated a "starting knowledge" of the problem, but no mastery. A "0" or "1" indicated little or no understanding.

The data indicates a wide variety of understanding among students. More time can be spent in the future teaching students conceptual connections to make proper use of mathematical assumptions, representations, and applications. Students seem to be comfortable with mathematical calculations. Going forward, conceptual underpinnings of precalculus can be used to drive the focus of the curriculum.

In the Spring 2014 semester, there will be more meetings with all faculty who are teaching the course to discuss issues arising in the teaching and learning of precalculus, as well as details regarding assessment. Specific content, such as the unit circle and graphs of trigonometric functions, will be targeted for greater emphasis, and other content, such as routine equation solving, will be targeted for de-emphasis. In so doing, our goal is to make the teaching and learning of precalculus to be an effective prerequisite for future work in mathematics.

Quantitative Literacy VALUE Rubric

for more information, please contact value@aacu.org

Association of American Colleges and Universities

Definition

Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a "habit of mind," competency, and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	**Milestones** 3	2	1
Interpretation *Ability to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words).*	Provides accurate explanations of information presented in mathematical forms. Makes appropriate inferences based on that information. *For example, accurately explain the trend data shown in a graph and make reasonable predictions regarding what the data suggest about future events.*	Provides accurate explanations of information presented in mathematical forms. *For instance, accurately explain the trend data shown in a graph.*	Provides somewhat accurate explanations of information presented in mathematical forms, but occasionally makes minor errors related to computations or units. *For instance, accurately explain trend data shown in a graph, but may miscalculate the slope of the trend line.*	Attempts to explain information presented in mathematical forms, but draws incorrect conclusions about what the information means. *For example, attempt to explain the trend data shown in a graph, but will frequently misinterpret the nature of that trend, perhaps by confusing positive and negative trends.*
Representation *Ability to convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words).*	Skillfully converts relevant information into an insightful mathematical portrayal in a way that contributes to a further or deeper understanding.	Competently converts relevant information into an appropriate and desired mathematical portrayal.	Completes conversion of information but resulting mathematical portrayal is only partially appropriate or accurate.	Completes conversion of information but resulting mathematical portrayal is inappropriate or inaccurate.
Calculation	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem. Calculations are also presented elegantly (clearly, concisely, etc.)	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem.	Calculations attempted are either unsuccessful or represent only a portion of the calculations required to comprehensively solve the problem.	Calculations are attempted but are both unsuccessful and are not comprehensive.
Application / Analysis *Ability to make judgments and draw appropriate conclusions based on the quantitative analysis of data, while recognizing the limits of this analysis.*	Uses the quantitative analysis of data as the basis for deep and thoughtful judgments, drawing insightful, carefully qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for competent judgments, drawing reasonable and appropriately qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for workmanlike (without inspiration or nuance, ordinary) judgments, drawing plausible conclusions from this work.	Uses the quantitative analysis of data as the basis for tentative, basic judgments, although is hesitant or uncertain about drawing conclusions from this work.
Assumptions *Ability to make and evaluate important assumptions in estimation, modeling, and data analysis.*	Explicitly describes assumptions and provides compelling rationale for why each assumption is appropriate. Shows awareness that confidence in final conclusions is limited by the accuracy of the assumptions.	Explicitly describes assumptions and provides compelling rationale for why assumptions are appropriate.	Explicitly describes assumptions.	Attempts to describe assumptions.
Communication *Expressing quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized).*	Uses quantitative information in connection with the argument or purpose of the work, presents it in an effective format, and explicates it with consistently high quality.	Uses quantitative information in connection with the argument or purpose of the work, though data may be presented in a less than completely effective format or some parts of the explication may be uneven.	Uses quantitative information, but does not effectively connect it to the argument or purpose of the work.	Presents an argument for which quantitative evidence is pertinent, but does not provide adequate explicit numerical support. (May use quasi-quantitative words such as "many," "few," "increasing," "small," and the like in place of actual quantities.)

GES3: Solve problems using Quantitative Reasoning - Intermediate

GE202X Research and Technology

Semester: FALL 2013

REPORT DATE: 1/8/2014

Introduction:

Quantitative Reasoning was assessed as a pilot in GE202X, Research and Technology, based on the student's final project using the AAC&U Quantitative Literacy Value Rubric. This course introduces students to research design and methodology, as well as to disciplinary and interdisciplinary perspectives of the research process. Students learned how to design and implement a research project appropriate for their major discipline. This course is geared toward freshmen and sophomores although students from all levels are represented. Each course is tailored to the major being taught. For this pilot assessment, the courses that were geared for the Sciences and business majors were selected (4 sections from GE2024 and 3 sections from GE2021 and 1 section from GE2026). This represents 33% of the total sample number (24 sections for all disciplines).

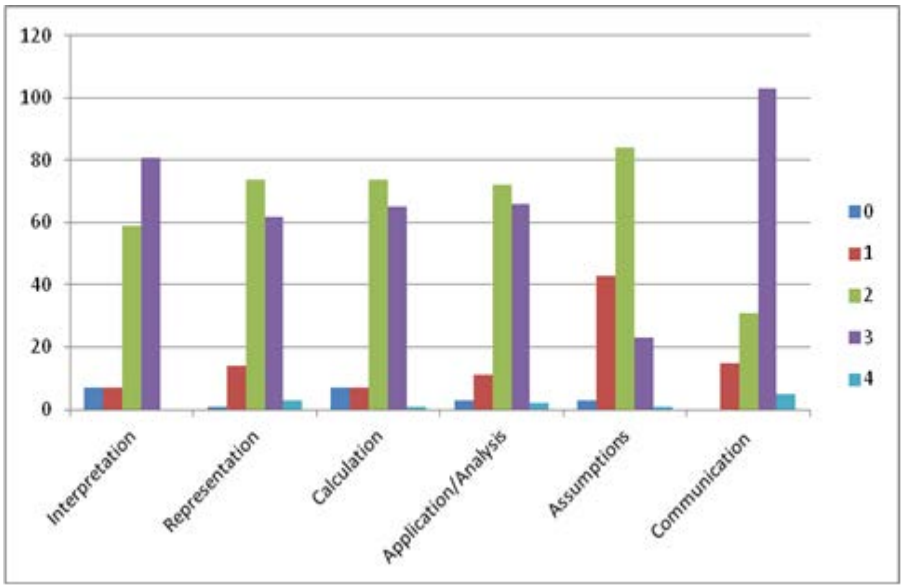
Data:

Sample size for pilot:
Number of students: 154
Number of sections: 8

Mean scores overall:

Criteria	Mean
Interpretation	2.4
Representation	2.3
Calculation	2.3
Application/ Analysis	2.3
Assumptions	1.8
Communication	2.7

Distribution of Scores:

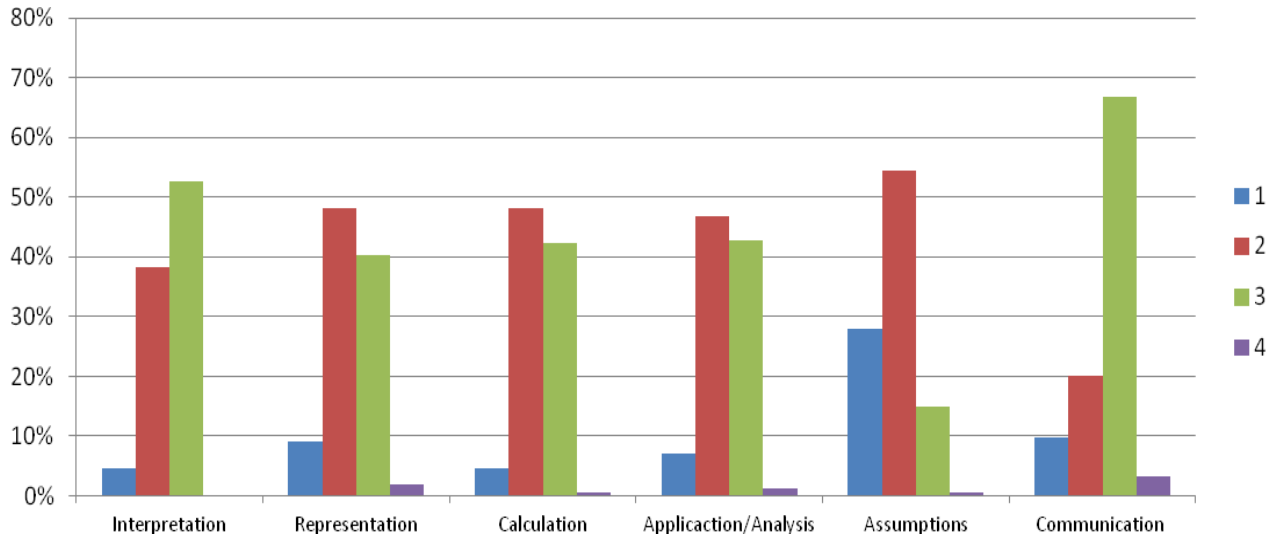


Distribution of Scores:

	Interpretation	Representation	Calculation	Application /Analysis	Assumptions	Communication
0	7	1	7	3	3	0
1	7	14	7	11	43	15
2	59	74	74	72	84	31
3	81	62	65	66	23	103
4	0	3	1	2	1	5

Percentages of score

	Interpretation	Representation	Calculation	Application/ Analysis	Assumptions	Communication
0	5%	1%	5%	2%	2%	0%
1	5%	9%	5%	7%	28%	10%
2	38%	48%	48%	47%	55%	20%
3	53%	40%	42%	43%	15%	67%
4	0%	2%	1%	1%	1%	3%
Level 1-2	47%	58%	57%	56%	84%	30%
Level 3-4	53%	42%	43%	44%	16%	70%



Discussion/Action/Closing the Loop:

The initial implementation of this rubric was performed on a 15-page research paper that students developed across the semester in which they provide an experiment design, discuss the execution of the experiment, and then report and discuss their findings. As initial calibration was performed, it was assumed that the course would fall around the intermediate level with an average score between 2 and 3 (both milestones), after normalization however it was determined that a satisfactory expectation level for the course would be achieving a 3 (milestone).

By looking at the results it is seen that assumptions is the weakest point with averages of 1.84 (84% failed to meet expectation), followed by calculation (2.30, 57%), representation (2.34, 58%) and application/analysis (2.34, 56%). Although assumptions is a subject that is discussed widely in the course, these results suggest that we should do more: a practical exercise might be a way for them to recognize and better understand how to formulate assumptions for their own project. A practical exercise will be provided this semester to test our theory. Also, to fix this weakness, there will be specific lessons that model articles focusing on this topic developed with collaboration from Statistics colleagues. Also with better understanding of the mathematical portion, a group exercise can be developed to determine the assumptions and analysis of diverse scientific articles as well as have each student try to come up with their own as a separate "building block" for their final project with peer as well as instructors' review. These models will be used in the upcoming Spring 2014 semester.

It has also been observed that there is a strong connection between quantitative reasoning in Statistics, and Research and Technology based on the collection and interpretation of data from the methodology and discussion portion of their final research project. It may be of some interest to determine if the placing Statistics into students' curriculum as a precursor to Research and Technology or in conjunction would make an improvement on their scores. To determine the feasibility, a study will be proposed to look at completion rates of students that have taken both courses before, after or in conjunction with each other. This assumption is taken from our results and the fact that not all of them are required to take Statistics at all and for the rest Statistics is not a prerequisite (or co-requisite) for Research and Technology. This leads to the idea of possibility of piloting a paired course in the Fall 2014 semester and/ or recommending the implementation of the designated math (major specific) as a prerequisite for the course.

Appendix: Rubric

QUANTITATIVE LITERACY VALUE RUBRIC

for more information, please contact value@aacu.org

Definition

Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a "habit of mind," competency and confidence in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

Definition *are meaningful to assign a zero to a cell mark for work that was not handed in or participated.*

	Capstone 4	Milestones 3	2	1
Interpretation *Ability to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words)*	Provides accurate explanations of information presented in mathematical forms. Makes appropriate inferences based on that information. For example, accurately explains the trend data shown in a graph and makes reasonable predictions regarding what the data suggest about future events.	Provides accurate explanations of information presented in mathematical forms. For instance, accurately explains the trend data shown in a graph.	Provides inaccurate explanations of information presented in mathematical forms. For instance, calculates a correct trend but misinterprets the causal factors involved.	Attempts to explain information presented in mathematical forms, but draws incorrect conclusions about what the information means. For example, attempts to explain the trend data shown in a graph, but misrepresents the causal factors involved and applies inappropriate or inaccurate reasoning to explain future trends.
Representation *Ability to convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words)*	Skillfully converts relevant information into an insightful mathematical portrayal in a way that contributes to a further or deeper understanding.	Competently converts relevant information into an appropriate and desired mathematical portrayal.	Completes conversion of information but resulting mathematical portrayal is only partially appropriate or accurate.	Completes conversion of information but resulting mathematical portrayal is inappropriate or inaccurate.
Calculation *Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem. Calculations are also presented elegantly (clearly, concisely, etc.)*	Calculations attempted are successful and sufficiently comprehensive to solve the problem	Calculations attempted are successful but not sufficiently comprehensive to solve the problem	Calculations attempted are unsuccessful or not comprehensive enough to solve the problem	Calculations are attempted but are both unsuccessful and not comprehensive.
Application / Analysis *Ability to make judgments and draw appropriate conclusions based on the quantitative analysis of data, while recognizing the limits of this analysis*	Uses the quantitative analysis of data as the basis for deep and thoughtful judgments, drawing insightful, carefully qualified conclusions from this work	Uses the quantitative analysis of data as the basis for competent judgments, drawing reasonable and well-supported conclusions from this work	Uses the quantitative analysis of data as the basis for tentative, basic judgments, although is hesitant or uncertain about drawing conclusions from this work	Uses the quantitative analysis of data as the basis for tentative, basic judgments, although is hesitant or uncertain about drawing conclusions from this work
Assumptions *Ability to make and evaluate important assumptions in estimation, modeling, and data analysis*	Explicitly describes assumptions and provides compelling rationale for why assumptions are appropriate. Shows awareness that confidence in final conclusions is limited by the accuracy of the assumptions	Explicitly describes assumptions and provides reasonable justification for why assumptions are appropriate	Explicitly describes assumptions.	Attempts to describe assumptions.
Communication *Expressing qualitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized)*	Uses quantitative information in connection with the argument or purpose of the work, presents it in an effective format, and explains it with sufficient detail and context for an informed reader to understand its significance	Uses quantitative information in connection with the argument or purpose of the work, though data may be presented in a less than completely effective format or some parts of the explanation may be missing	Uses quantitative information, but does not effectively connect it to the argument or purpose of the work.	Presents an argument for which quantitative evidence is pertinent, but does not provide adequate explanation or justification for how the evidence supports the argument. (Data may be presented without explanation or context, such as "here's a big number," or "here's a graph.")

Description of the assignment being assessed:

Research Project – Based on a topic approved by your professor, the following elements will be submitted in stages and by specified due dates.

♦ Final paper

- Minimum of 15 typed pages of text: 12 pt. font (Times New Roman), double-spaced, 1–inch margins all sides
- Additional cover page including, at a minimum: Title, Student's name, Course name, Section number, Instructor's name
- Outline of the paper in the form of a table of contents
- Additional page(s) containing a minimum of properly formatted reference citations
- Proper APA format. If the student would prefer to use a different format, this MUST be approved at the beginning of the semester
- Standard English grammar, spelling, and punctuation
- Original work of the student

GES3: Solve problems using quantitative reasoning.

MATH0901, 1000, 1010, 1016, 1030

Semester: FALL 2013

REPORT DATE: 1/13/2014

For the Fall 2013 Semester students in GE mathematics courses 1000, 1010, 1016, 1030, (0901) were assessed using the AAC&U Quantitative Literacy Value Rubric. This assessment was conducted in all sections and data was received and analyzed as follows:

Course	Number of Sections	Number of Students
Math0901	12	539
Math1000	21	407
Math1010	11	248
Math1016	11	283
Math1030	1	24
Math1054	7	140

Quantitative reasoning presents a nuanced picture at Kean university. At this time we define quantitative reasoning more specifically as: algebraic thinking (reasoning), statistical thinking (reasoning), proportional thinking (reasoning), and problem solving. Our students vary in performance levels depending on the course and the complexity of the quantitative task before them. Overall students succeeded in calculation on familiar problems (Math1010, 1000, 1016, 1030, 1054), but had more difficulty with novel contexts (Math1010, 1054). The AAC&U Quantitative Literacy Value Rubric was more difficult to use in traditionally taught courses that value procedural calculation fluency (Math1000, 1054), as opposed to those that inherently require students to explain and analyze their work (Math1016, 1010, 1030). Much reflection and consideration is required to move forward and evaluate our pedagogy and curriculum to ensure not just high levels of students' learning, but high levels of students' learning mathematical content that is both meaningful and necessary for their future professional and personal lives. We believe that reflection needs to occur not just at the micro level but also at the macro level – looking at all the relevant courses, thinking longitudinally, thinking about the different routes students might take and the needs they might have as they enter particular majors.

Math0901

Some students enter college without the basic quantitative reasoning skills necessary to enter a college level Mathematics course. In this case, they begin with an Introductory Algebra course which will allow them to build the skills they will need to be successful at the next level.

Students were assessed at the beginning of the semester using a pre-test comprised of questions from each of the areas of algebra that were tested on the placement test. At the end of the semester they were given a cumulative final exam covering the same topics to measure their progress over the course of the semester. We have measured a very positive student learning, retention and development from the pre-test scores to the final exam.

Math1000

Students in this course showed the most weakness in calculation which perhaps speaks to the basic concern about college level algebraic readiness[1]. Multiple approaches are needed to ensure satisfactory student learning (program alignment, high level of learning in Math0901, curriculum and pedagogical innovation in Math1000.)

Math1010

Students in Math1010 showed some weakness in all AAC&U Quantitative Literacy Value Rubric categories. This is not surprising as this is a freshmen level course and student may begin at very different levels of mathematical proficiency. We are increasing our expectations of analytical thinking in all aspects of real-life open-ended authentic quantitative problems and to that end enriching our curriculum with such problems and many opportunities to practice these skills.

Math1016

Students in this course showed weakness in application/analysis and Assumptions. Data is a critical component in many aspects of education, careers and life. Data helps to make decisions in the fields of psychology, sociology, criminology, economics, business, medicine, sports and education, just to name a few. In Math 1016 the student is taught the skills needed to think for themselves, the ability to communicate and how to utilize the findings in an effective and concise manner. It is important to assess the students' quantitative reasoning skills, to make sure they are able to apply them upon completing the course and entering into their careers.

Upon completing Statistics, students have learned the basic understanding and skills that will carry them into the next level of reasoning course, whether it is Research and Technology, Research, Methods for Criminal Justice or Psychology Statistics, and eventually into the Capstone course.

An effective way to assess the students' skills is through a final project. This project models what would be happening in the "real world". All aspects of quantitative reasoning are covered in this assignment. The student is encouraged to pick a topic that relates to their field of study, or is of major interest. They must create the statistical test, gather and analyze data, draw conclusions, make predictions and

1 Kean serves predominantly urban, minority, and low socio-economic level students from New Jersey who are affected by New Jersey's highest achievement gap where these same students may graduate 3 to 4 class levels behind their white and sub-urban peers. New Jersey Capital Report, 01/12/14, Janellen Duffy and Ann Borowiec, Jerseycan.

communicate the results. All of these are the key elements of quantitative reasoning. The project is assessed using the AAC&U Quantitative Literacy Value Rubric.

Math1030

Students in Math1030 were well able to represent, interpret, calculate, analyze, and communicate their quantitative findings in portfolio problems submitted at the end of the semester. Students performed the lowest on assumption: "no student met level 3 with 75% at level 1 and 8% at level 2. Assumptions were not explicitly discussed and therefore that low score is consistent with the course context." (Math1030 report) With due caution, we can conclude that student performance reflects the course content – if you have to explain throughout the course you will get better at explaining. We must continue to develop this course and ensure mathematical rigor within its all-encompassing structure.

Math1054

Students in Math1054 appeared to perform 'equally bad and good', i.e. in a binomial distribution on the AAC&U Quantitative Literacy Value Rubric. Considerations of pedagogy and curriculum should be planned. Perhaps some students need conceptual understanding to perform procedurally and vice-versa. Additionally, longitudinal studies will be planned that explore student preparation in pre-requisite Courses (Math0901, 1000).

In General

The students in Math 1016, Math 1010, Math 1030, and Math 1000, were assessed at this introductory level using the AAC&U Quantitative Literacy Value Rubric for the first time and on different types of assignments (embedded exam questions, project papers, portfolios).

At the intermediate level, a pilot study assessed 8 sections of Research and Technology was performed identifying it as the intermediate level for the assessment on quantitative reasoning. In this course, assessment was done on the students' final research project with the rubric. This project continues to have students apply Quantitative Reasoning across the curriculum at a more advanced level by having not only designing methodology and perform experimentation but also explain results and discuss them with published literature.

At this initial phase it was impossible to track the same student through all of their courses. What can be compared are the means of the rubric. The results are positive and show a slight improvement in students' reasoning abilities as they proceed through these levels. In order to truly see if the course progression is working, two things must happen. First, math must be taken prior to Research and Technology, however, since Statistics and Research and Technology are so connected, it may be interesting to pilot a paired course in Fall 2014 and compare to other data. Secondly, it is imperative to track every student through their academic career.

The 1000 level Mathematics courses each emphasize different strands of quantitative reasoning. It would be useful to look what the next level of Math the student will be taking for their major, by doing so it will allow us to tailor the course to a student's individual needs. Incorporating this minor change we can increase the likelihood of student success, emphasize relevant concepts and better prepare them for the next level. The data supports the possibility of separating the students by major and

designing two developmental courses with different trajectories. Students who will be heading into Math 1000 need to master certain more complex concepts than students headed to Math 1010 and 1016. This will allow us to give the student a more individualized education experience and insure greater success at the next level.

For the long term, we would like to look at the needs of each major and map the appropriate math course to each major. This would allow for a structured and disciplined major specific math road-map that will best prepare the students to successfully pass the courses and apply quantitative reasoning throughout their education across the curriculum.

GE SLO S4: Think Critically About Concepts in Multiple Disciplines

Basic Level

College Composition (ENG 1030 and 1031/1032)

Semester: FALL 2013

REPORT DATE: 1/8/2014

Critical thinking in College Composition is assessed based on an argument essay written by the student using the AACU Critical Thinking Rubric. The program's goal is that 70% of students will perform at level 2 or higher on the critical thinking rubric.

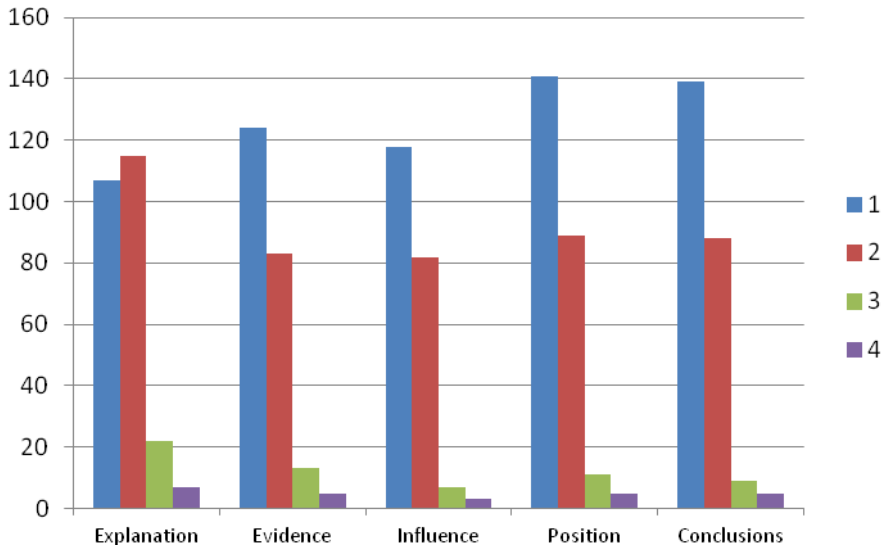
College Composition helps students develop flexible processes for composing writing to meet academic purposes across the curriculum. Both ENG 1030 and 1031/1032 have the same course objectives; the only difference is in the time students are given to meet them. Students in ENG 1031/1032 meet for double the amount of class time than ENG 1030. College Composition follows a set course calendar, where all sections are supposed to move through the same four genres (summary/response, argument, analysis, and reflection/portfolio) at the same time. The program has shared definitions for the genres, and faculty are allowed to construct whatever prompt they wish as long as it meets the shared definition. See the Appendix for more information on the guidelines for the argument genre.

(Note: some of the essays were earlier drafts than others, with the later drafts generally having received instructor feedback that was meant to improve the quality of the argument. Due to time constraints, we did not separate out essays by their stage in the process.)

Number of students: 259 (205 from ENG1030 and 54 from ENG1031/10320

Number of sections: 19 (15 for ENG 1030; 4 for ENG 1031/1032; this represents approximately the same proportion of sections for each type of course offered in the Fall semester). Different numbers of essays were read from each section.

Distribution of Scores



Mean scores overall:

Category	Score
Explanation	1.7
Evidence	1.4
Influence	1.3
Position	1.4
Conclusions	1.4

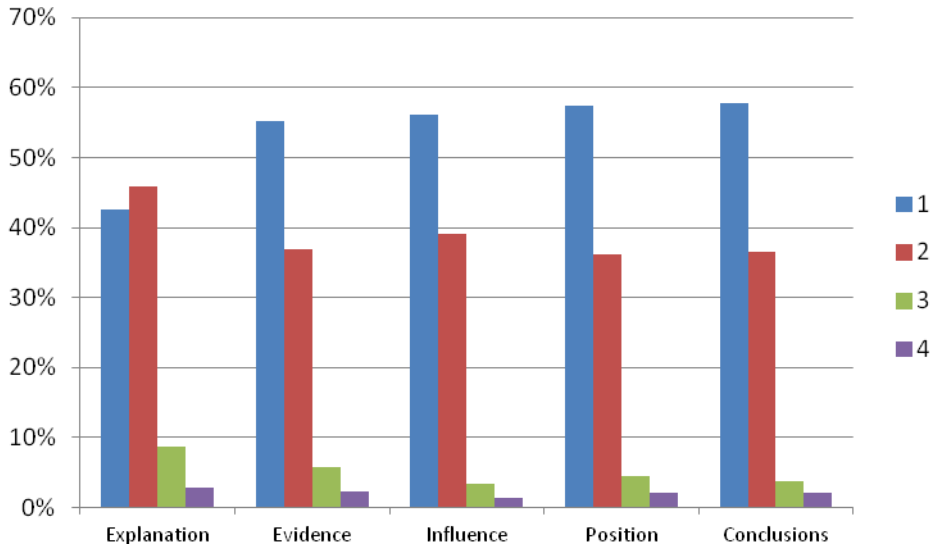
Distribution of Scores:

	Explanation	Evidence	Influence	Position	Conclusions
1	107	124	118	141	139
2	115	83	82	89	88
3	22	13	7	11	9
4	7	5	3	5	5
total	251	225	210	246	241

Percentage distribution

Percentages of score

	Explanation	Evidence	Influence	Position	Conclusions
1	43%	55%	56%	57%	58%
2	46%	37%	39%	36%	37%
3	9%	6%	3%	4%	4%
4	3%	2%	1%	2%	2%
Level 2-4	57%	45%	44%	43%	42%



Analysis:

The program's goal is that 70% of students will perform at level 2 or higher on the critical thinking rubric.

Students performed the best on explanation (Mean 1.7, 57% reached level 2-4), followed by Evidence (1.4, 45%), Position (1.4, 43%) and conclusion (1.4, 42%). Influence is the lowest among all (1.3) with only 4% met level 3-4.

Discussion/Action/Closing the Loop:

Overall, the mean scores are in the area the Composition program expected them to be for students in a freshman-level course, with almost all students performing in the 1-2 range. Students seem to be strongest in the explanation category (mean 1.7, 57% reached level 2-4). In assessing this category, we focused on how well they framed the issue in the introduction of their essay. Based on the results given here, we did not meet the percentage goal set above. However, this is the first year we have attempted to gather systematic data on critical thinking, so it seems best to consider these results as a baseline which we can use as a model to plan further growth.

Students showed less skill in the position (1.4, 43%) and conclusion (1.4, 43%) categories, and some of the readers commented that the main problem seemed to involve presenting and responding to viewpoints that challenged their theses. It was decided that more class time would be spent on helping students learn to accurately present opposing viewpoints and respond to them in ways that created a more nuanced argument. As most of the readers are also teaching College Composition this semester, I assume they have begun to work on this issue in class, though at the time this report was prepared, the course calendar indicated classes would not begin working on argument until February 11.

Appendix A

We examined students' argument essays. Teachers can design their own prompt for this assignment, as long as it meets the following genre requirements:

Definition: Argumentative writing takes a specific position on a subject and attempts to persuade readers their position is valid.

Conventions of an argumentative writing:

- an appropriate topic (note: arguable topics allow people to possess different opinions on the topic, though they must share at least one point of agreement. Non-arguable topics are based on personal taste or preference, or they cannot be resolved by means appropriate for an academic context.)
- a clear position. In academic writing, the stance is usually laid out in a thesis, though not always.
- a set of reasons stating why the writer's position is valid.
- evidence used to support the reasons. The evidence should be appropriate for the audience and context, and the evidence must include a researched component. The exact number of sources, citation system, and other elements are up to the instructor,
- awareness of opposing viewpoints. These opposing viewpoints can be responded to in multiple ways: acknowledgement, accommodation, and refutation.

(Note: some of the essays were earlier drafts than others, with the later drafts generally having received instructor feedback that was meant to improve the quality of the argument. Due to time constraints, we did not separate out essays by their stage in the process.)

Appendix B AAC&U Critical Thinking Rubric

CRITICAL THINKING VALUE RUBRIC

for more information, please contact value@aacu.org

Association of American Colleges and Universities

Definition

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone	**Milestones**		**Benchmark**
	4	3	2	1
Explanation of issues	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.	Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown.	Issue/problem to be considered critically is stated without clarification or description.
Evidence *Selecting and using information to investigate a point of view or conclusion*	Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.
Influence of context and assumptions	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.
Student's position (perspective, thesis/hypothesis)	Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/hypothesis) are acknowledged. Others' points of view are synthesized within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue.	Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.
Conclusions and related outcomes (implications and consequences)	Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.

GE SLO S4: Think Critically About Concepts in Multiple Disciplines - Intermediate

Intermediate Level

Research and Technology GE202x

Semester: FALL 2013

REPORT DATE: 1/8/2014

The implementation of the AACU Critical Thinking rubric was piloted in Research and Technology GE202x in the Fall 2013 semester as an auxiliary assessment of the final 15-page research paper. This paper is developed across the semester and includes elements of experimental design, execution, and discussion of research findings. Previously, the only assessment was the General Education Writing Presentation Rubric. Due to this assessment's pilot status, a target for aggregated student performance could not be pre-determined, but as initial calibration was performed, it was assumed that the course would fall around the intermediate level with an average score of between 2 and 3 (milestones).

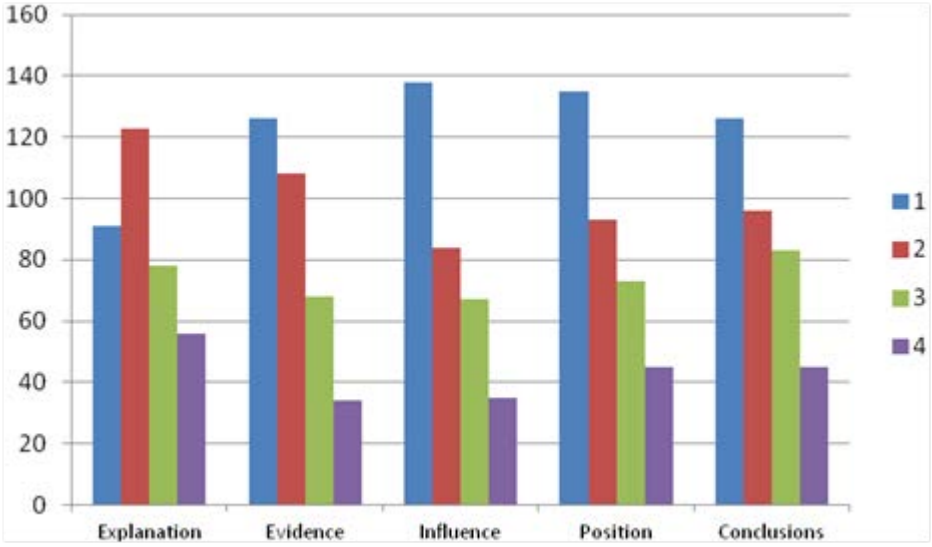
Number of students:
357

Number of sections:
18

Mean scores overall:

Explanation	2.2
Evidence	1.9
Influence	1.8
Positions	2.0
Conclusions	2.1

Distribution of Scores

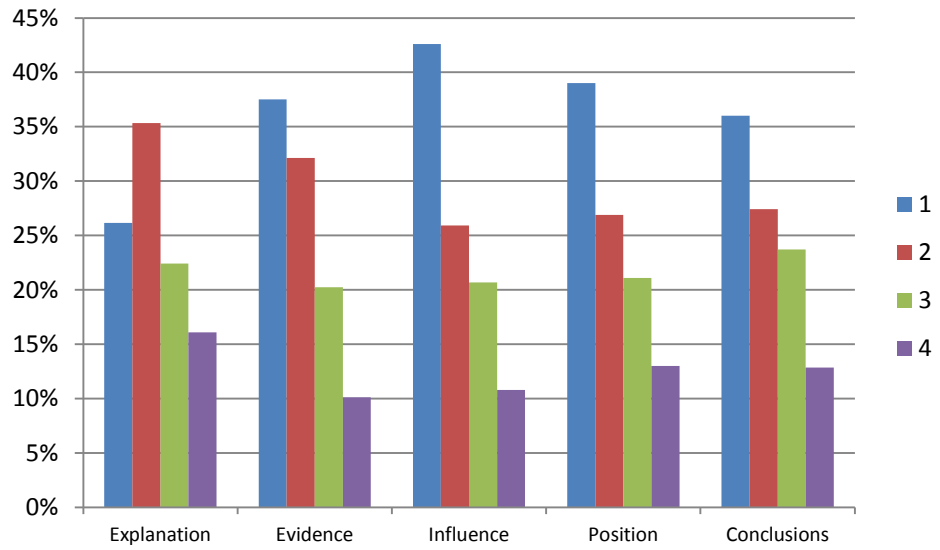


Frequency of Scores

	Explanation	Evidence	Influence	Position	Conclusions
1	91	126	138	135	126
2	123	108	84	93	96
3	78	68	67	73	83
4	56	34	35	45	45
total	348	336	324	346	350

Percentages of score

	Explanation	Evidence	Influence	Position	Conclusions
1	26%	38%	43%	39%	36%
2	35%	32%	26%	27%	27%
3	22%	20%	21%	21%	24%
4	16%	10%	11%	13%	13%
Level 3-4	39%	30%	31%	34%	37%



Discussion/Action/Closing the Loop:

By looking at the results it is seen that Evidence and Influence are the weakest points with averages of 1.9 and 1.8 respectively. Although Evidence and Influence are discussed in the course these results might be an indication that a practical exercise might be a way for students to recognize and better understand how to apply these concepts for their own project. Lessons that illustrate model articles focusing on this topic will be developed with the collaboration with other Research and Technology colleagues. These models will be implemented in the Spring 2014 semester.

GE SLO S4: Think Critically About Concepts In Multiple Disciplines

Advanced Level

Capstone Courses

Semester: FALL 2013

Critical Thinking in capstone courses is assessed based on the students' final presentation using the Critical Thinking Rubric created by the Association of American Colleges and Universities. Student Work Samples vary depending on the course/subject. Capstone courses are taken during the senior year in a student's specified major field of study.

Number of students: 86
Number of Sections: 6

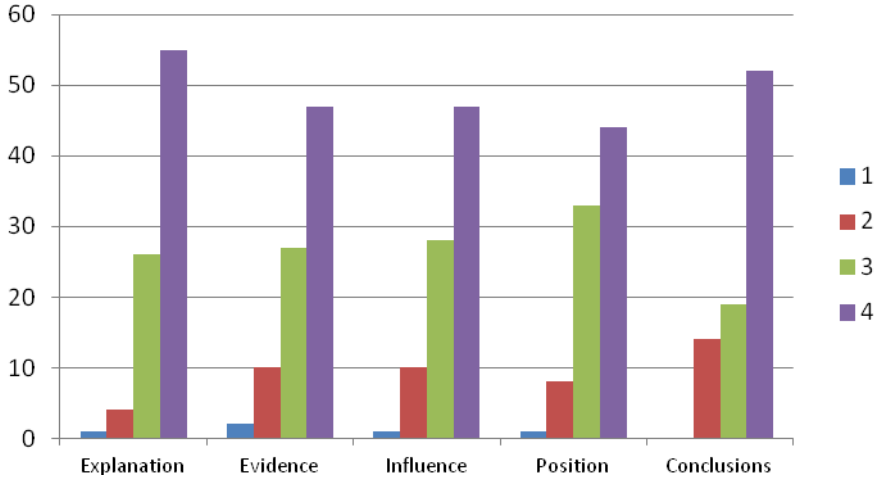
Courses Included in SLO S4 Assessment at Capstone Level:
BIO 4970 *01
DSN 4000*02
ENG 4817* 01
PED 4610 *K1
PS 4130* 01
PSY 4940* K1

A score of 4 denotes a student is at Capstone level; a score of 1 denotes a threshold into the skill, and a score of 2 or 3 denotes milestone. Students in beginning level courses, such as ENG 1030, should score 1, and students taking intermediate level courses, such as GE 202X, should score at the milestones 2-3. The Capstone courses assessed in this pilot easily met the appropriate milestone and often at the higher milestone score of 3. However, campus-wide discussion is encouraged to decide if, at the capstone level, a score of 3 is sufficient enough progress for graduating seniors.

Mean scores overall:

Explanation	3.6
Evidence	3.4
Influence	3.4
Position	3.4
Conclusions	3.4

Distribution of Scores



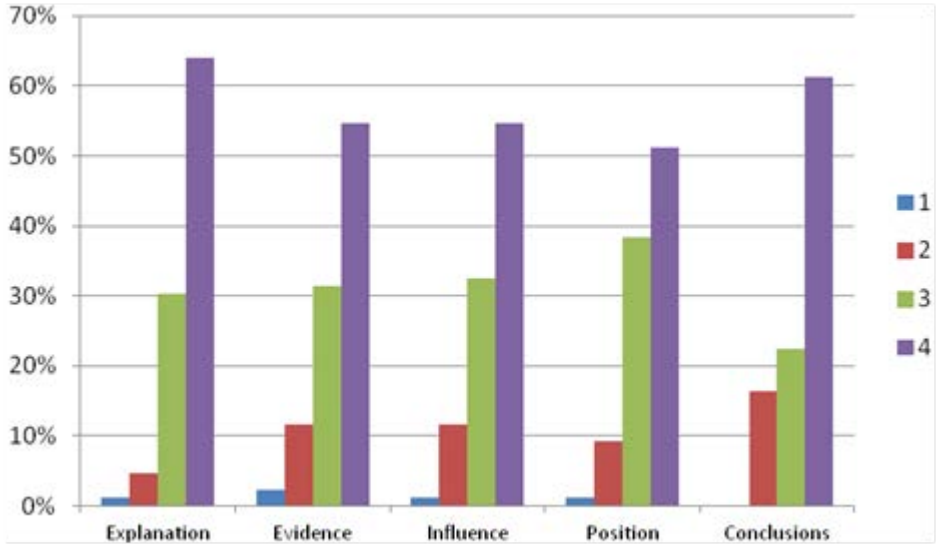
Distribution of Scores:

Frequency by score

	Explanation	Evidence	Influence	Position	Conclusions
1	1	2	1	1	0
2	4	10	10	8	14
3	26	27	28	33	19
4	55	47	47	44	52
total	86	86	86	86	85

Percentages of score

	Explanation	Evidence	Influence	Position	Conclusions
1	1%	2%	1%	1%	0%
2	5%	12%	12%	9%	16%
3	30%	31%	33%	38%	22%
4	64%	55%	55%	51%	61%
Level 3-4	94%	86%	87%	90%	84%



Students perform the best on Explanation, 94% met level 3 or higher. The second highest is Position, for which 90% of the students met level 3-4. The performance on Conclusion is slightly lower, with 16% failed to reach level 3.

SPSS results

All 5 dimensions are significantly correlated (P<.001). This means that students' performance on these five dimensions is consistent with each other. Those students who scored well on explanations are also performing well on other critical thinking skills (position, e,g.)

Discussion/Action/Closing the Loop:

The assessment data suggests that students of the sampled capstone courses are beneath the requisite level "4" of the Capstone level in the critical thinking rubric. Current data suggests that while students are comfortable identifying and explaining problems within their field of study, and can comprehensively deliver most relevant information about said problem in speeches and writing, areas of evidence, context/assumption, perspective, and related outcomes can be improved. Further work encouraging students to analyze and interpret sources and question expert viewpoints is needed as well as analysis of students' own assumptions and biases. In turn, this will build students' confidence in stating their positions clearly and definitively as well as reflect their informed evaluations of evidence and perspectives while compiling and working with data. Specific assignments should be designed by instructors to further these ends. We have not brought together Capstone Instructors who have a specific emphasis in an SLO for sometime. We now need to do so to establish our norms and to discuss what might be our common approach from now onwards in courses with a Critical Thinking emphasis. Finally every instructor needs to be challenged to consider new teaching and learning strategies specific to their discipline that can further inculcate Critical Thinking. Instructors of GE Capstone courses will meet in March of 2014 (the mid term for Spring 2014) to discuss teaching and learning strategies related to this SLO.

CRITICAL THINKING VALUE RUBRIC

for more information, please contact value@aacu.org

Definition

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone	Milestones		Benchmark
	4	3	2	1
Explanation of issues	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.	Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown.	Issue/problem to be considered critically is stated without clarification or description.
Evidence *Selecting and using information to investigate a point of view or conclusion*	Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.
Influence of context and assumptions	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.
Student's position (perspective, thesis/hypothesis)	Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/hypothesis) are acknowledged. Others' points of view are synthesized within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue.	Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.
Conclusions and related outcomes (implications and consequences)	Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.

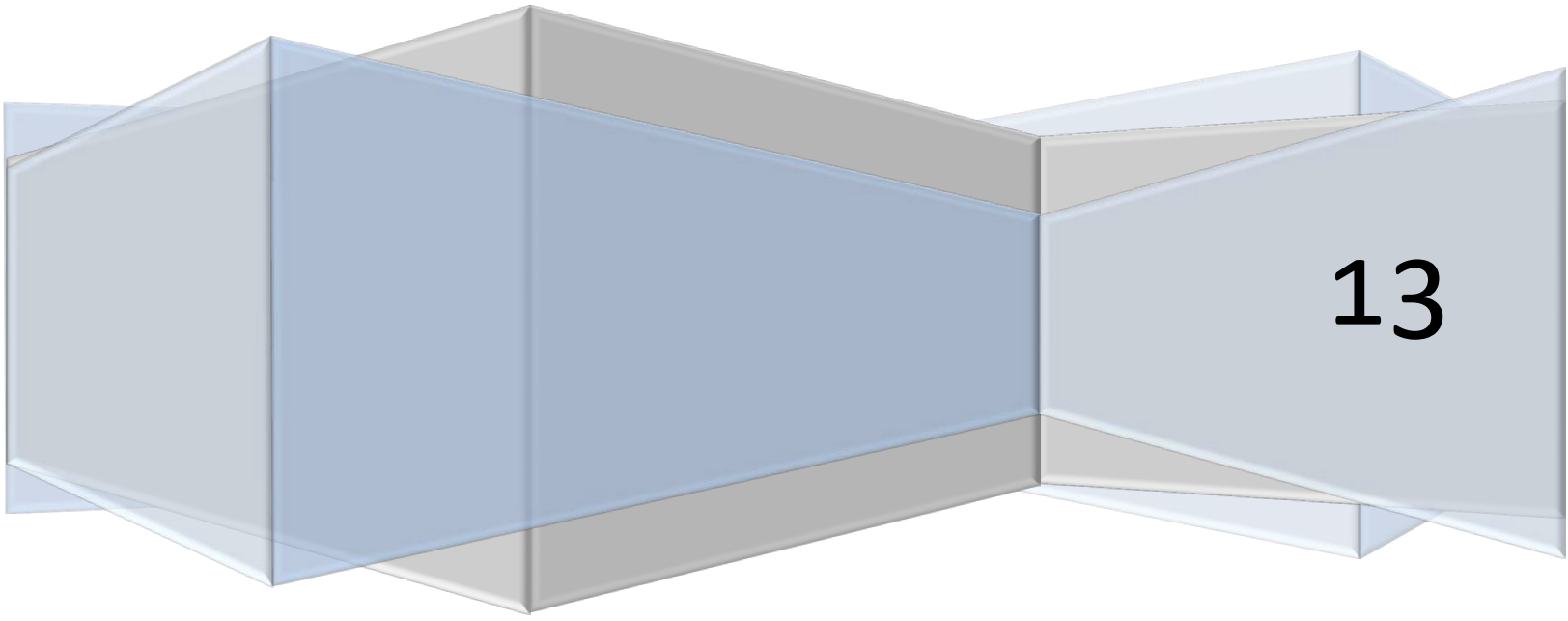
Kean University

CAAP Test

Critical Thinking Report

Wenjun Chi

Office of Accreditation and Assessment



Background

CAAP test is a standardized test designed by ACT, a non-profit organization, to measure student's knowledge in writing, reading, math, critical thinking, and science. Kean University used the CAAP Critical Thinking test in fall semesters of 2011-2013.

"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." (ACT CAAP CT homepage) It is a paper-and-pencil test administered in class. The scores range between 40-80.

The Office of Accreditation and Assessment (OAA) and the Office of General Education cooperated in administering the CAAP Critical Thinking test at Kean. After the test, the answering sheets were delivered to ACT and a total score of each student was sent back in a CD to the OAA office.

The CAAP Critical Thinking Test was given to freshmen and seniors in fall 2011. In 2012, only capstone courses from programs due for program review in fall 2012 (some from spring 2013) were selected for the test on a volunteer basis. In fall 2013, a randomly selected courses, including 11 Research & Tech courses (mainly sophomore) and 13 Capstone Courses (mainly seniors), were chosen to take the test. 366 students at Kean took the test in the fall 2013 semester, including 8 freshmen, 100 sophomore, 57 juniors and 199 seniors (2 NA). The class level and other demographic information were reported by students during the test. The fall 2013 sample is representative of the target population: Kean sophomore and seniors.

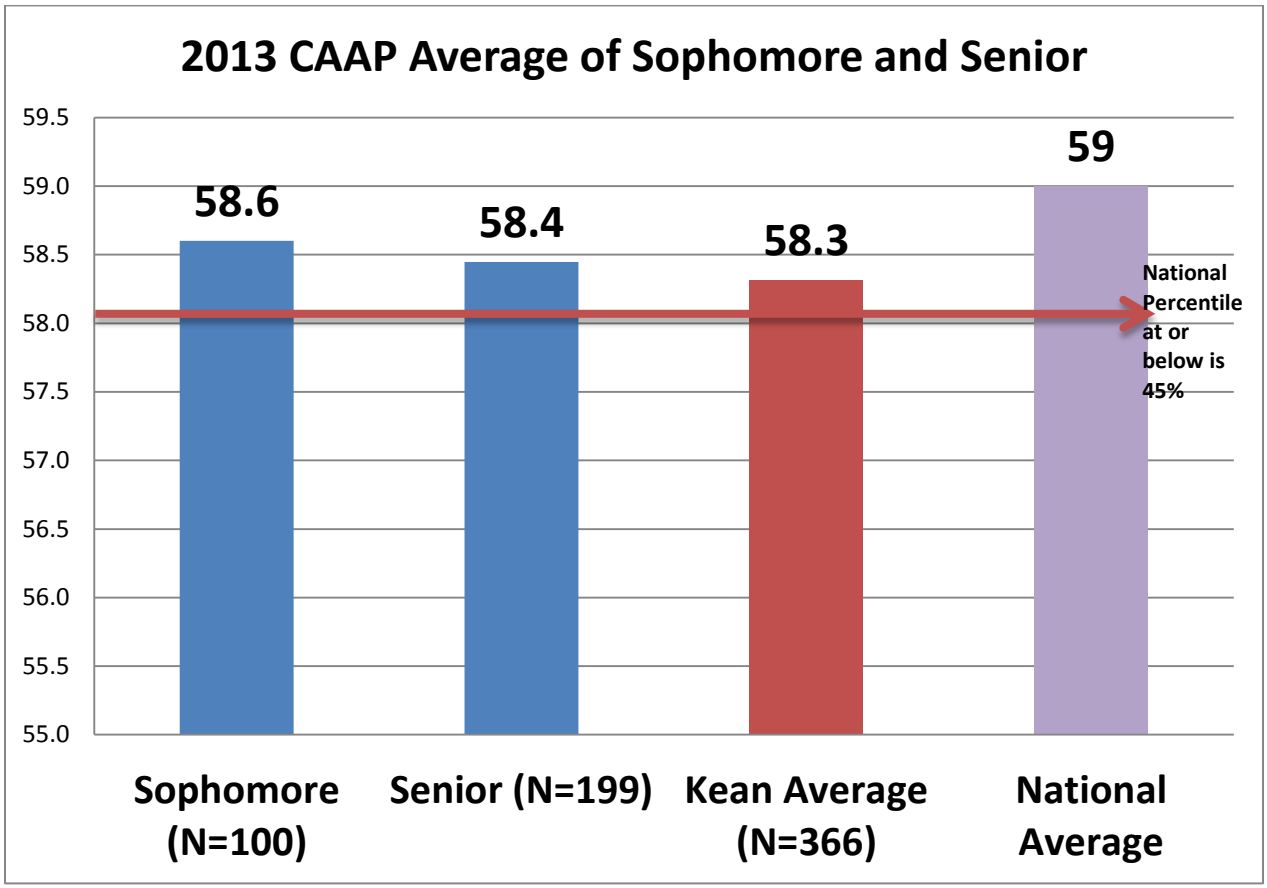
Analysis

Summary

- On average, Kean students scored as high as or higher than 47% of the people taking the CAAP Critical Thinking Test in the past three years in United States.
- There is no significant difference between the averages of sophomore (Mean 58.6) and seniors (Mean 58.4) at Kean.
- The average score in the Natural and Applied Sciences programs is the highest (59.7) among all Kean students. Students in those programs scored as well or better than 55% of the national test takers.
- Compared with other self-reported programs, Health professions (Nurse, Physical Therapy, etc.) and Community Services (Criminal Justice, Public Administration etc.) programs rank as the lowest among all on average, but still scored the same or higher than about 43% of the national test takers.

- Compared with national competitors, Kean's average performance stay within top 53% (top 51% in 2011 and top 45% in 2012) in the past three years, indicating a competitive performance of Kean students.

Figure 1



The national cumulative percentiles are based on sophomores at all four year institutions that used CAAP during the last three years.
Freshmen and juniors are included in the Kean Average.

The average CAAP Critical Thinking score of fall 2013 Kean students is 58.3, which places Kean students at about the 47th percentile (47% of the national test takers scored equal to or below Kean). Considering the strength of the other institutions that also took the test over the past three years (national percentile base), the performance of Kean students can be considered a success. The Kean average also includes 8 freshmen and 57 juniors. Because participated freshmen and juniors are not representative of the 1st year and 3rd year population, no analysis was performed for freshmen and junior groups.

The average scores of both sophomore and seniors at Kean are very close to the national average. Sophomore (Mean 58.6) scored only slightly higher than seniors (Mean 58.4), but there is no significant difference. One possible reason for this lack of difference might be the influx of transfer

students in the Junior Year: most of the sophomores at Kean enrolled as freshmen and were required to take all General Education (GE) courses in their first two years to improve their critical thinking skills, while about 60% of the seniors at Kean are transfer students who skipped that step. For instance, in the Academic Year 2012-13, 63.3% of the graduating seniors were transfer students. So the only GE course that transfer students must take is the capstone course at the senior level. But this is simply a first idea. The result suggests that Kean should review progress at the 'fourth point' (the Junior Year) and potentially should implement more critical thinking practice at this juncture as well. The GE department in cooperation with Academic Services is in the process of constructing a GE core course for incoming transfer students that will form a rapid first introduction to the Kean GE SLOs among transfer students. This introduction will include critical thinking skills.

But in the interests of continuous improvement, we should also consider embedding more directed teaching and assessment of critical thinking skills into the Research & Tech courses for sophomores and capstone courses for seniors. It would also be useful, for triangulation purposes, to test a random sample of freshmen and junior students in the fall to have a fuller picture of the Critical Thinking skill proficiency at Kean.

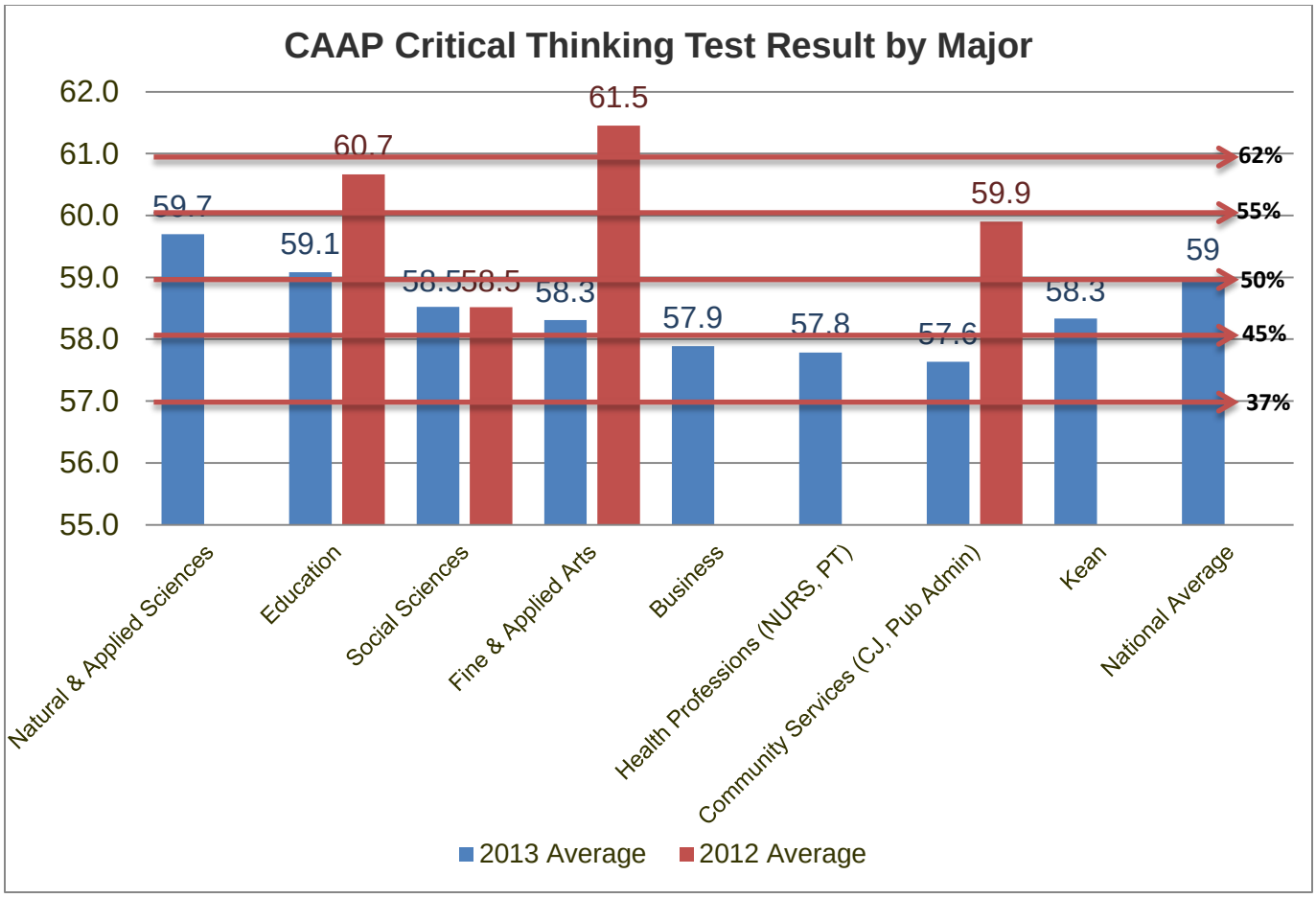
Table 1

CAAP Critical Thinking Average By Major

	2013					2012
	Mean	SD	Min	Max	Senior Mean	Mean
Natural & Applied Sciences	59.7	5.417	51	69	59.6	
Education	59.1	5.324	50	71	58.4	60.7
Social Sciences	58.5	5.437	48	73	58.2	58.5
Fine & Applied Arts	58.3	6.329	49	71	59.1	61.5
Business (N=108)	57.9	4.770	50	71	58.2	
Health Professions (NURS, PT)	57.8	4.441	51	66	**	
Community Services (CJ, Pub Admin)	57.6	5.185	49	70	57.5	59.9
Undecided	57.8	5.726	50	68		
Kean	58.3	5.230	48	73		59.7*
National Average						59

** Programs with less than 10 students are included*

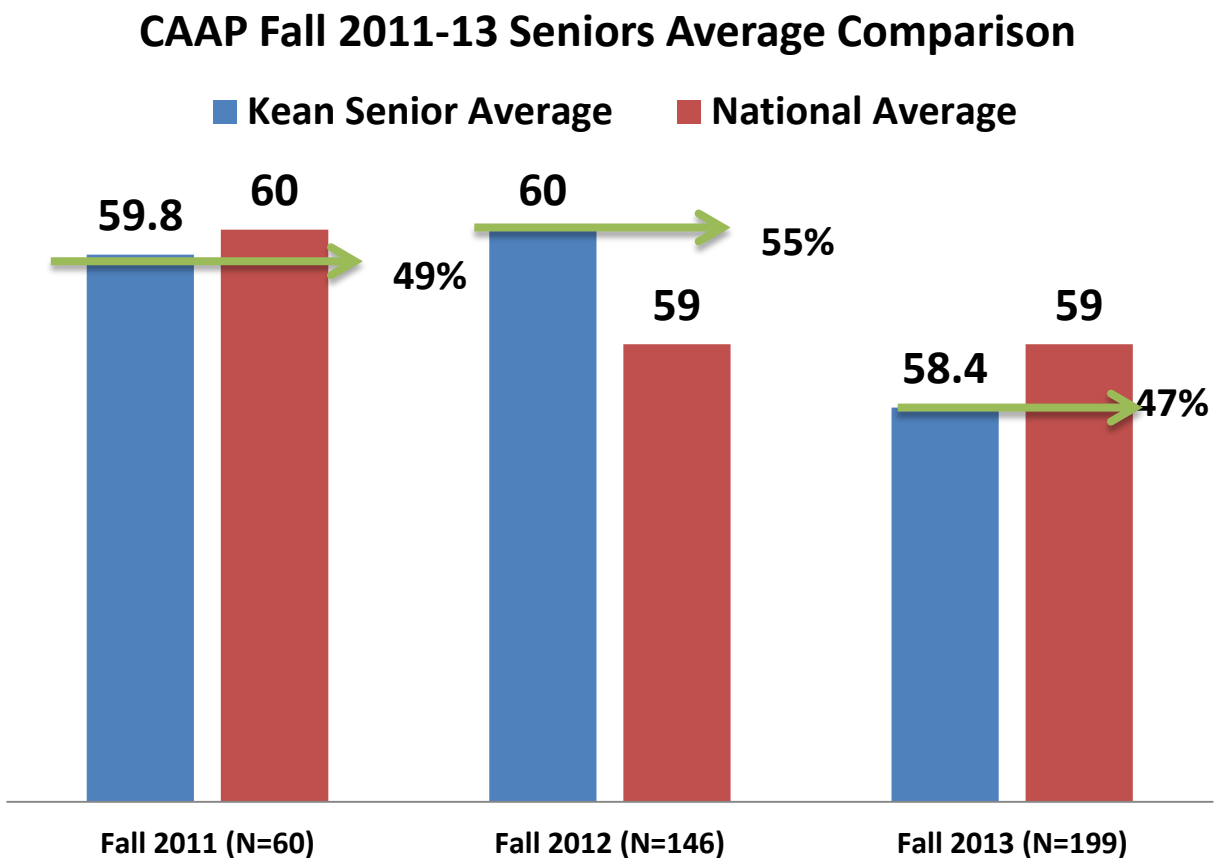
*** Excluded due to limited N*



Based on self-reported majors as defined by ACT, the test results are analyzed by program. The average scores of Kean programs range between 57.6 - 59.7, remaining close to the national average (59). Students enrolled in Natural and Applied Sciences programs earned the highest average score (59.7) among all, with approximately 55% of the national test takers scoring as well or below (nationally 55% scored at or below 60), suggesting strong critical thinking skills among those students from science majors. Compared with other self-reported programs, Health professions (Nurse, Physical Therapy, etc.) and Community Services (Criminal Justice, Public Administration etc.) programs rank as the lowest among all on average, but still scored the same or higher than about 43% of the national test takers. These two areas could provide more critical thinking related practice in their curriculum and instruction.

We obviously need to ask specific programs to look into their courses more carefully. The CAAP test provides a 'suggestion' of where we need to look more carefully. The evidence does however suggest that our next step should be to direct assessment of Critical Thinking at the institutional level to Health and Community Service programs. We are already using the AAC&U rubric in Composition sections and Research and Tech, but the CAAP test allows us to be much more directed in its use. We should also open a discussion with related GE distributed courses, Capstone faculty and GE faculty teaching Research and Tech for these fields to consider how to teach actively

Critical Thinking in their classrooms. First thoughts would include more assignments and in-class discussion that challenge students to analyze real-world problems to improve their ability in critical thinking area; and/or co-curricular activity with a post event report that require students to analyze real-world issues more critically should be introduced to the Community Services and Health Professions programs, as well as other programs.



The sample from fall 2012 is not representative, thus the validity of comparison between 2012 and 2013 is reduced. It is also unclear how the fall 2011 data was collected. Therefore it is crucial to continue randomly selecting samples of Kean students in 2014 and 2015, and repeat it every three years at Kean to keep tracking change of students' critical thinking skills.

The data indicated that from 2011 to 2013, Kean students have been on a par with their peers in other institutions in US who took the same test in the past three years. National Percentiles at or below the average score of Kean 2011-13 test participants are 49%, 55%, and 47%, indicating a competitive performance of Kean students.

References

ACT Homepage: http://www.act.org/caap/test/thinking.html

SLO S4: THINK CRITICALLY ABOUT CONCEPTS IN MULTIPLE DISCIPLINES

Overall Summary
Semester: Fall 2013

During the Fall 2013, the School of General Studies implemented the assessment of Critical Thinking in a pilot stage. The tool adopted to assess student learning outcomes is the Critical Thinking Rubric created by the Association of American Colleges and Universities, AAC&U.

CRITICAL THINKING VALUE RUBRIC
for more information, please contact value@aacu.org

Definition
Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

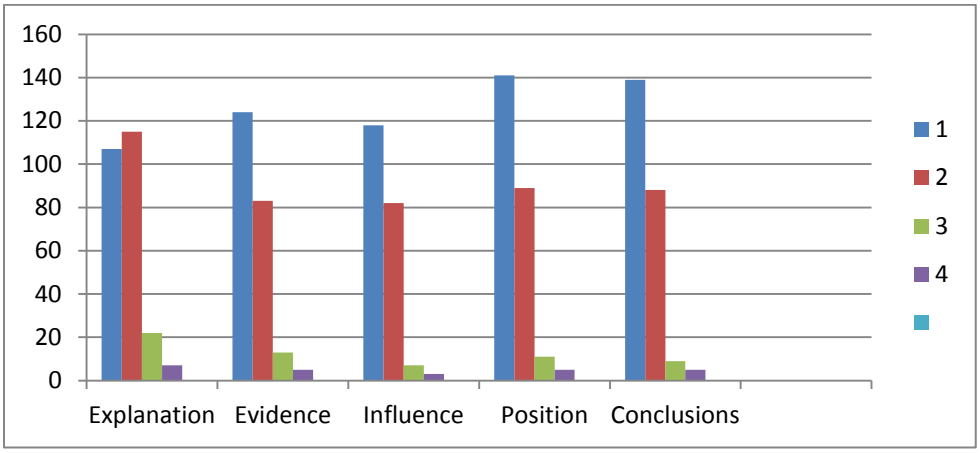
	Capstone	Milestones		Benchmark
	4	3	2	1
Explanation of issues	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.	Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown.	Issue/problem to be considered critically is stated without clarification or description.
Evidence *Selecting and using information to investigate a point of view or conclusion*	Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.
Influence of context and assumptions	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.
Student's position (perspective, thesis/hypothesis)	Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/hypothesis) are acknowledged. Others' points of view are synthesized within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue.	Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.
Conclusions and related outcomes (implications and consequences)	Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.

The rubric for Critical Thinking measures five criteria: Explanation of Issues, Evidence to support positions, Influence of context and assumptions, Student's position, Conclusions and related outcomes. The rubric scoring defines a score level of 1 for a Benchmark level, 2 and 3 for Milestone level, and 4 for Capstone level. It also calls for a score of zero when the work submitted does not meet the basic Benchmark criteria.

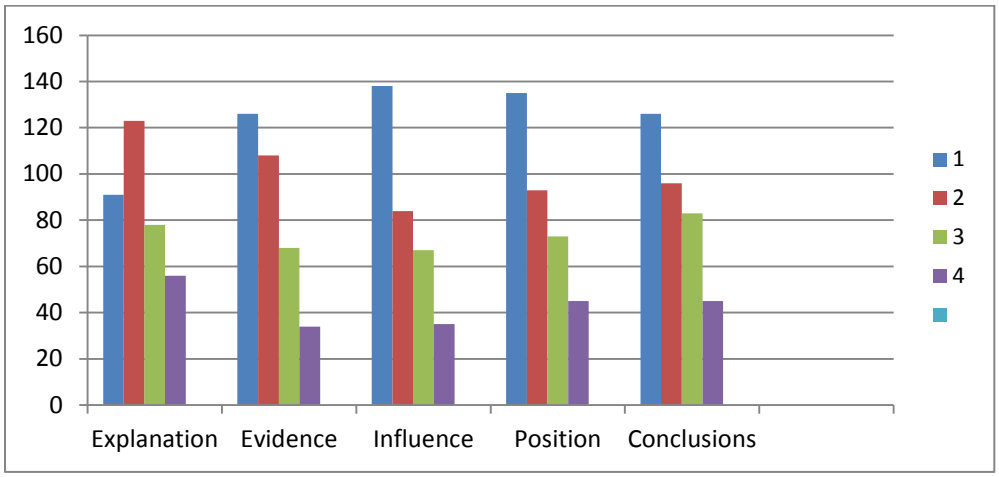
The pilot process defined as criteria of assessment the critical analysis of information received and presented in an academic environment by the students at three levels in their undergraduate career: Basic, Intermediate and Advanced.

Of the total 719 students assessed, 259 were at the Basic level, 374 at the Intermediate level and 86 at the Advanced level.

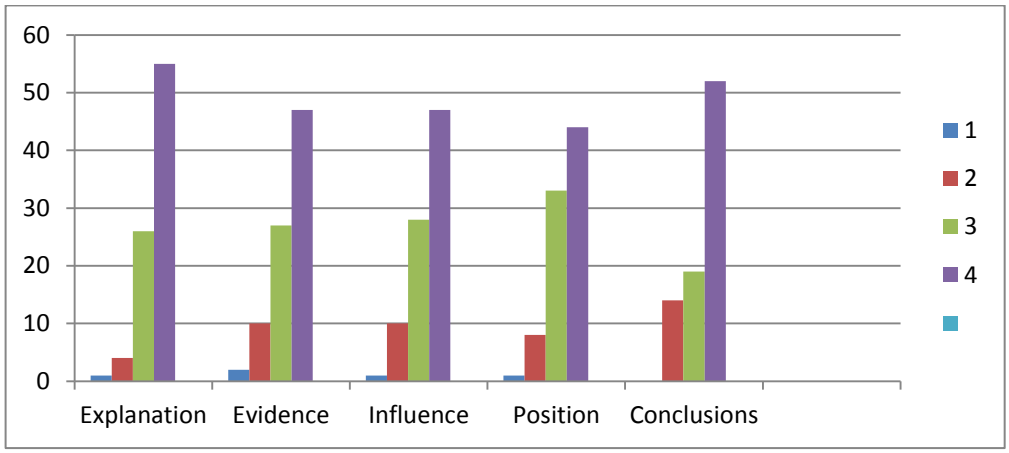
- At the Basic level a sample of 259 students from 19 sections of College Composition (ENG 1030/1031/1032) courses was assessed presenting the following results:



- At the Intermediate level a sample of 374 students from 17 sections of Research and Technology (GE 202*) courses was assessed presenting the following results:



- At the Advanced level a sample of 86 students from 6 sections of Capstone courses:



During the implementation of this pilot assessment of Critical Thinking a number of documented meetings within departments of each level of assessment took place. Faculty participated to standardize the criteria (calibration of rubric) to better guide the process from Basic (1 Benchmark), to Intermediate (2 &3 Milestone) to Advanced (4 Capstone) levels.

At this first point of assessment the data showed that at the Basic level the scores are in the expected range for students at the freshman level in which the majority of scores were in the 1 – 2 range, where students showed strength in explaining the issues at hand but were weak when presenting opposing points of view. At the Intermediate level the scores reflected the expected range. Student strengths continued to be the explanation of issues, but were still weak in acknowledging their assumptions and questioning the positions of authoritative figures in their field. At the Advanced level the scores do need further consideration. They were not as expected for the range of 4 Capstone level. The weakness remains in identifying assumptions that would lead to bias in their work, but all three steps that lead from explanation of an issue to drawing conclusions could be improved.

RECOMMENDATIONS:

As this is the first time that we have used the AAC&U rubric to assess Critical Thinking there is no comparative data. However during the discussions analyzing the results at all three levels it was agreed that action needs to be taken to overlap the standardization of criteria (calibration of rubric) between faculty members in the three levels of assessment so that we know we are looking at 'normed' data longitudinally in the future.

The gap between intermediate achievement and advanced again suggests that we should review progress at the junior level – to assess whether we need to be doing more at that level, and how much the high number of transfer students at Kean University is changing what we need to teach at the junior level. We also agreed to try and differentiate between these two categories for our next capstone assessment.

GE SLO S5: Information Literacy

Randomly selected GE 1000, GE 202x, and capstone course sections

Semester: FALL 2013 REPORT DATE: 1/9/2014

Information literacy in GE 1000, GE 202x, and capstone courses is assessed through administration of the Standardized Assessment of Information Literacy Skills (SAILS) test by the School of General Studies, Kean University Library, and Office of Accreditation and Assessment. SAILS is an online test with 45 multiple-choice questions. Scoring is based on the item response theory (IRT) and, in particular, the one-parameter Rasch model. Scores are placed on a scale that ranges from 0 to 1000. SAILS questions are based on the Association of College and Research Libraries' Information Literacy Competency Standards for Higher Education. SAILS measures the following eight skills:

- Developing a Research Strategy
- Selecting Finding Tools
- Searching
- Using Finding Tool Features
- Retrieving Sources
- Evaluating Sources
- Documenting Sources
- Understanding Economic, Legal, and Social Issues

Testing will continue in the Spring 2014 semester, with additional Capstone and STEM GE 202x participants.

Number of students:

GE 1000 – 141 students
GE 202x – 139 students
Capstone – 62 students

Number of sections:

GE 1000 – 6 sections
GE 202x – 8 sections
Capstone – 4 sections

Mean scores overall:

SAILS Skill Sets	Scores*
Developing a Research Strategy	472 ±14
Selecting Finding Tools	463 ±18
Searching	470 ±16
Using Finding Tool Features	488 ±22
Retrieving Sources	474 ±20
Evaluating Sources	460 ±16
Documenting Sources	462 ±20
Understanding Economic, Legal, and Social Issues	454 ±17

* Overall scores for Kean students (combined GE 1000, GE 202x, and Capstone)

Distribution of Scores:

SAILS skill set 1: Developing a Research Strategy	GE 1000	GE 202x	Capstone
# participants	141	139	62
Average score	457	470	514
Standard error	±20	±23	±29
Group average score range	437-477	447-493	485-543

SAILS skill set 2: Selecting Finding Tools	GE 1000	GE 202x	Capstone
# participants	141	139	62
Average score	428	468	531
Standard error	±28	±29	±37
Group average score range	400-456	439-497	494-568

SAILS skill set 3: Searching	GE 1000	GE 202x	Capstone
# participants	141	139	62
Average score	443	468	532
Standard error	±24	±26	±31
Group average score range	419-467	442-494	501-563

SAILS skill set 4: Using Finding Tool Features	GE 1000	GE 202x	Capstone
# participants	141	139	62
Average score	498	454	546
Standard error	±33	±38	±48
Group average score range	465-531	416-492	498-594

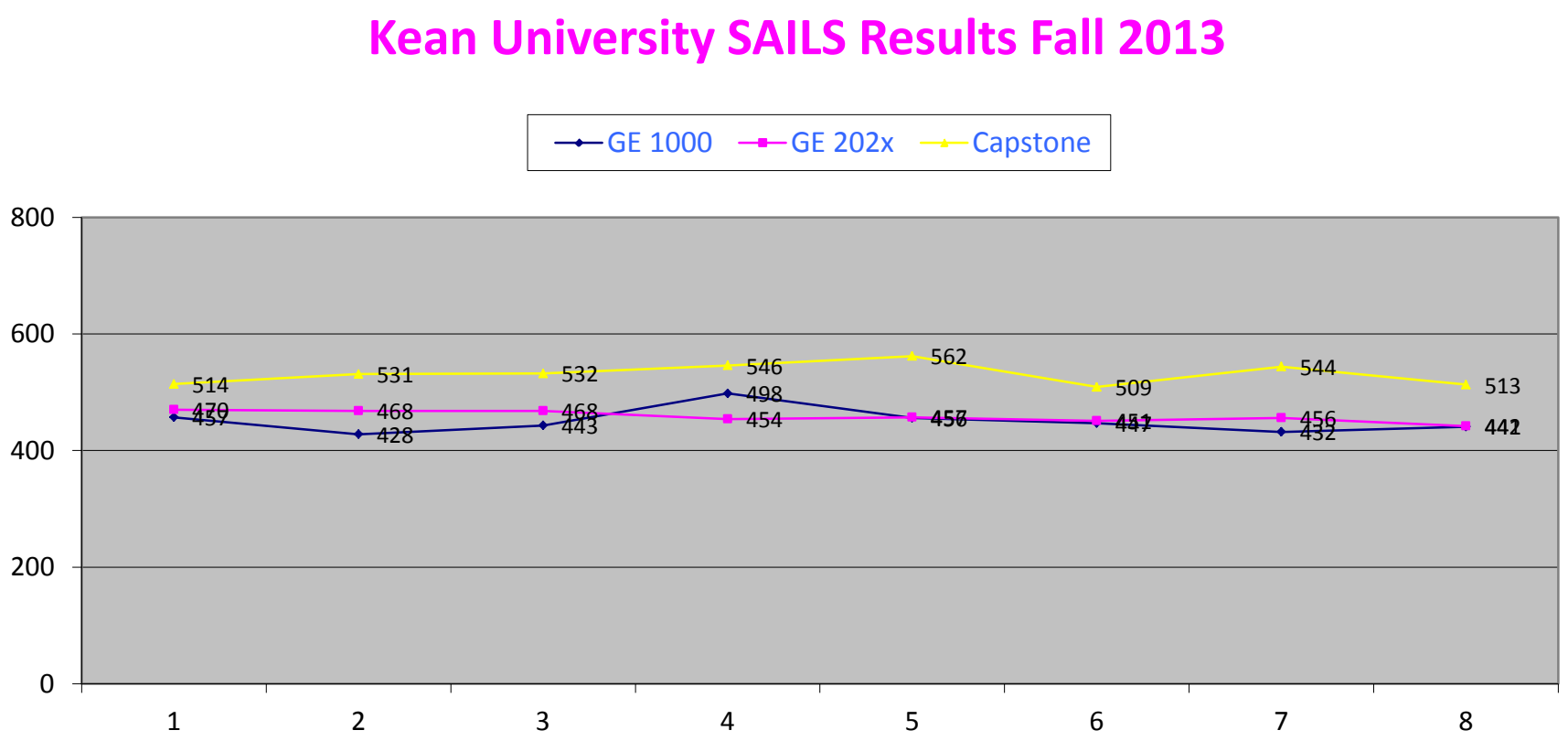
SAILS skill set 5: Retrieving Sources	GE 1000	GE 202x	Capstone
# participants	141	139	62
Average score	456	457	562
Standard error	±28	±31	±45
Group average score range	428-484	426-488	517-607

SAILS skill set 6: Evaluating Sources	GE 1000	GE 202x	Capstone
# participants	141	139	62
Average score	447	451	509
Standard error	±25	±25	±37
Group average score range	422-472	426-476	472-546

SAILS skill set 7: Documenting Sources	GE 1000	GE 202x	Capstone
# participants	141	139	62
Average score	432	456	544
Standard error	±33	±31	±46
Group average score range	399-465	425-487	498-590

SAILS skill set 8: Understanding Economic, Legal, and Social Issues	GE 1000	GE 202x	Capstone
# participants	141	139	62
Average score	441	442	513
Standard error	±25	±27	±34
Group average score range	416-466	415-469	479-547

Distribution of Scores



Project SAILS collects data for the following information literacy skill sets, with data corresponding to the numbered items on the horizontal axis:

1 = Developing a Research Strategy
2 = Selecting Finding Tools
3 = Searching
4 = Using Finding Tool Features
5 = Retrieving Sources
6 = Evaluating Sources
7 = Documenting Sources
8 = Understanding Economic, Legal, and Social Issues

Discussion/Action/Closing the Loop:

Discussion

According to the results of the Fall 2013 SAILS test administration:

- Capstone scores are higher than GE 1000 and GE 202x scores for all eight information literacy skills.

- GE 202x scores were lower than GE 1000 scores for one skill area: Using Finding Tool Features.

- GE 202x scores were barely greater than GE 1000 scores for three skill areas:
  Retrieving Sources
  Evaluating Sources
  Understanding Economic, Legal, and Social Issues

- The group differences, while important, are meaningfully different in only four instances: the difference between Capstone and GE 1000/GE 202x scores for four skill areas (Searching, Retrieving Sources, Documenting Sources, and Understanding Economic, Legal, and Social Issues). In all other instances, the large standard errors found within groups contributed to overlap among the group average score ranges, rendering the scores not meaningfully different from each other.

- The large standard errors are most likely due to small sample size and large variability of scores.

- A comparison by SAILS of Kean University's mean scores to the institution-type benchmark mean finds that Kean students had the least amount of difficulty with the Documenting Sources; Understanding Economic, Legal, and Social Issues; and Searching skills.

- A comparison by SAILS of Kean University's mean scores to the institution-type benchmark mean finds that Kean students struggled most with Selecting Finding Tools, followed by Using Finding Tool Features, Retrieving Sources, and Developing a Research Strategy.

- Fall 2013 Capstone scores are slightly higher than Capstone scores collected in 2011-2012.

- In 2010-2011, GE 202x scores were lower than GE 1000 scores for one skill: Developing a Research Strategy. GE 202x scores are higher than GE 1000 scores for this particular skill in Fall 2013.

- Previous "closing the loop" actions had focused on creating assignments (i.e., the Annotated Bibliography Assignment with Information Literacy Rubric), online tutorials, and handouts to help students improve the following skills: Evaluating Sources and Developing a Research Strategy. For Fall 2013, these two areas are no longer ranked by SAILS as being the most difficult for Kean students (when compared to how students at other colleges perform).

Recommendations for Closing the Loop Actions

- Librarians and faculty teaching GE 202x should develop ideas for embedding existing online information literacy tutorials and research guides into the GE 202x course (for instance, through Blackboard).
- Librarians and faculty teaching GE 202x should consider "flipping the classroom" strategies that will require students to complete the existing online information literacy tutorials and foster additional active learning experiences as part of library instruction programming.
- Librarians and faculty teaching GE 202x should develop and implement activities that will help students improve the Selecting Finding Tools skill.
- The Library should pursue outreach to the academic departments in an effort to map information literacy to the curriculum beyond GE courses (i.e., in 3000- and 4000-level courses that students will take before the capstone).
- The Library should monitor the upcoming revisions to the Information Literacy Competency Standards for Higher Education, which will incorporate threshold concepts and metaliteracy and will hopefully make it easier to work with faculty on integrating information literacy into the curriculum in GE as well as major courses.

Listed below are the specific courses and sections tested using SAILS during the Fall 2013 semester (from Linda Cifelli):

Transition to Kean
GE 1000:18
GE 1000:21
GE 1000:28
GE 1000:34
GE 1000:38
GE 1000:49

Research and Technology
GE **2021.04**
GE **2021.05**
GE **2022.04**
GE **2022.05**
GE **2023.03**
GE **2023.05**
GE 2024.03
GE **2025.01**

Capstone
PSY 4940.K1
MATH **4890.02**
MGS **4999.01**
EDUC **4000.02**

Submitted by Linda Cifelli, Information Literacy Librarian, Kean University Library, 1/9/2014

Large Scale Testing and General Surveys: Results and Analysis

SAILS (Standardized Assessment of Information Literacy Skills)
GE Skill 5 – Information Literacy

Linda Cifelli, Information Literacy Librarian
Kean University Library
January 13, 2014

What is Information Literacy?

According to Middle States (2006) in Standard 11 and 12:

"Several skills, collectively referred to as 'information literacy,' apply to all disciplines in an institution's curricula. These skills relate to a student's competency in acquiring and processing information in the search for understanding, whether that information is sought in or through the facilities of a library, through practica, as a result of field experiments, by communications with experts in professional communities, or by other means. Therefore, information literacy is an essential component of any educational program at the graduate or undergraduate levels" (Middle States Commission on Higher Education. Characteristics of Excellence in Higher Education, p. 42).

Information Literacy Defined

As defined by the Information Literacy Competency Standards for Higher Education, an information literate person is able to:

- Determine the nature and extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically and incorporate selected information into his or her knowledge base and value system
- Use information effectively to accomplish a specific purpose
- Understand many of the economic, legal, and social issues surrounding the use of information and access and use information ethically and legally

(Association of College and Research Libraries, 2000)

How is development of information literacy skills supported in the curriculum?

- Instruction by faculty in support of assignments that require students to gather information
- Faculty-requested library instruction sessions for various courses

For the GE Program:

- Library instruction lesson plan for GE 1000 (Transition to Kean)
- Library instruction lesson plan for GE 202x (Research and Technology)
- Annotated Bibliography assignment utilizing Information Literacy Rubric (required in GE 202x)

Supplementary Information Literacy Resources:

- Online video tutorials
- Online Research Guides, including
  - Transition to Kean / Career research guide
  - Research and Technology research guide
  - More than 100 subject-focused research guides

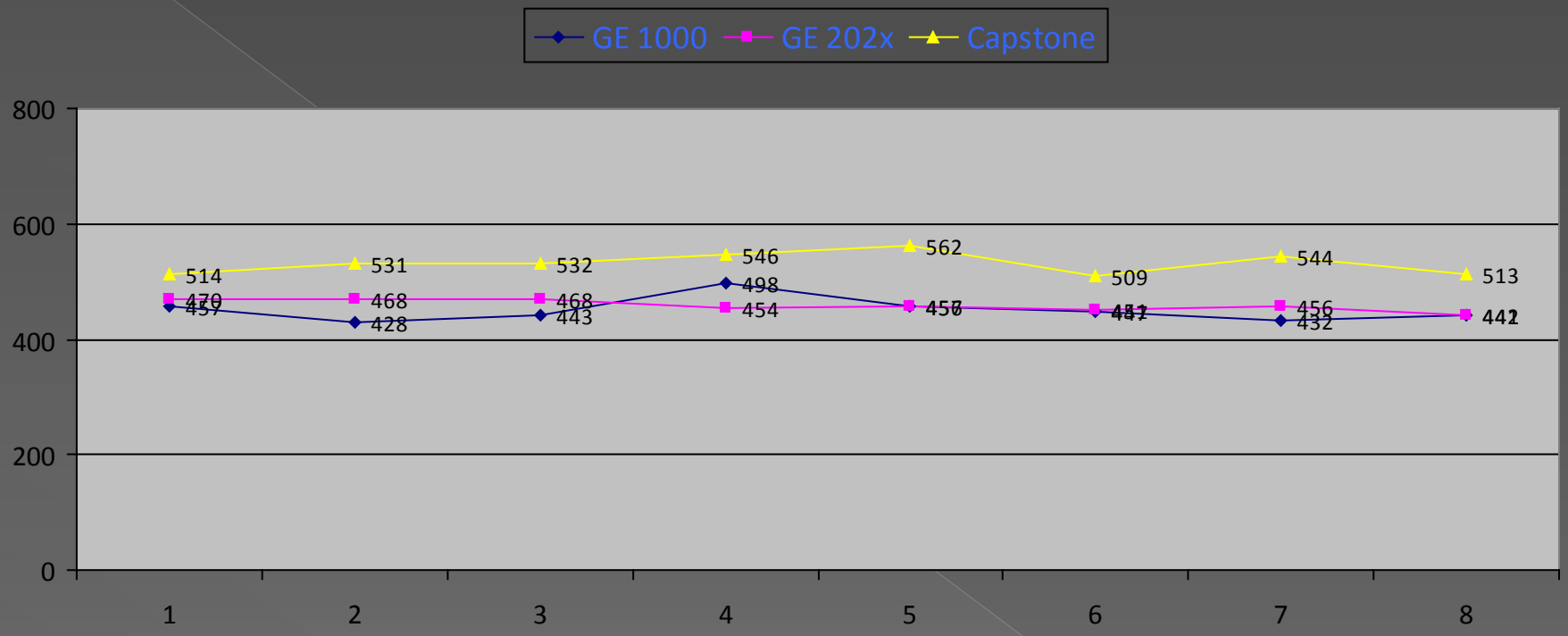
History of Information Literacy Assessment at Kean

- In Spring 2010, the School of General Studies, Office of Accreditation and Assessment, and Kean University Library brainstormed ideas for assessing information literacy skills.
- The goal was to gather evidence of achievement of information literacy competencies by Kean's undergraduate students.
- We looked at several options for standardized test instruments, and we settled upon Project SAILS (Kent State University, 2000-2013).
- The university's then Director of Assessment designed a study whereby we would use the SAILS test to collect information literacy data from participants recruited from three course populations: Transition to Kean (GE 1000), Research and Technology (GE 202x), and capstone courses.
- The SAILS test was administered to these three populations during 2010-2011 and 2011-2012.

What is Project SAILS?

- The Standardized Assessment of Information Literacy Skills (SAILS) test was developed by Kent State University (2013), with questions based on the Information Literacy Competency Standards for Higher Education (Association of College and Research Libraries , 2000).
- SAILS is an online test with 45 multiple-choice questions.
- Scoring is based on the item response theory (IRT) and, in particular, the one-parameter Rasch model. Scores are placed on a scale that ranges from 0 to 1000.
- SAILS measures the following eight skills:
  - Developing a Research Strategy
  - Selecting Finding Tools
  - Searching
  - Using Finding Tool Features
  - Retrieving Sources
  - Evaluating Sources
  - Documenting Sources
  - Understanding Economic, Legal, and Social Issues

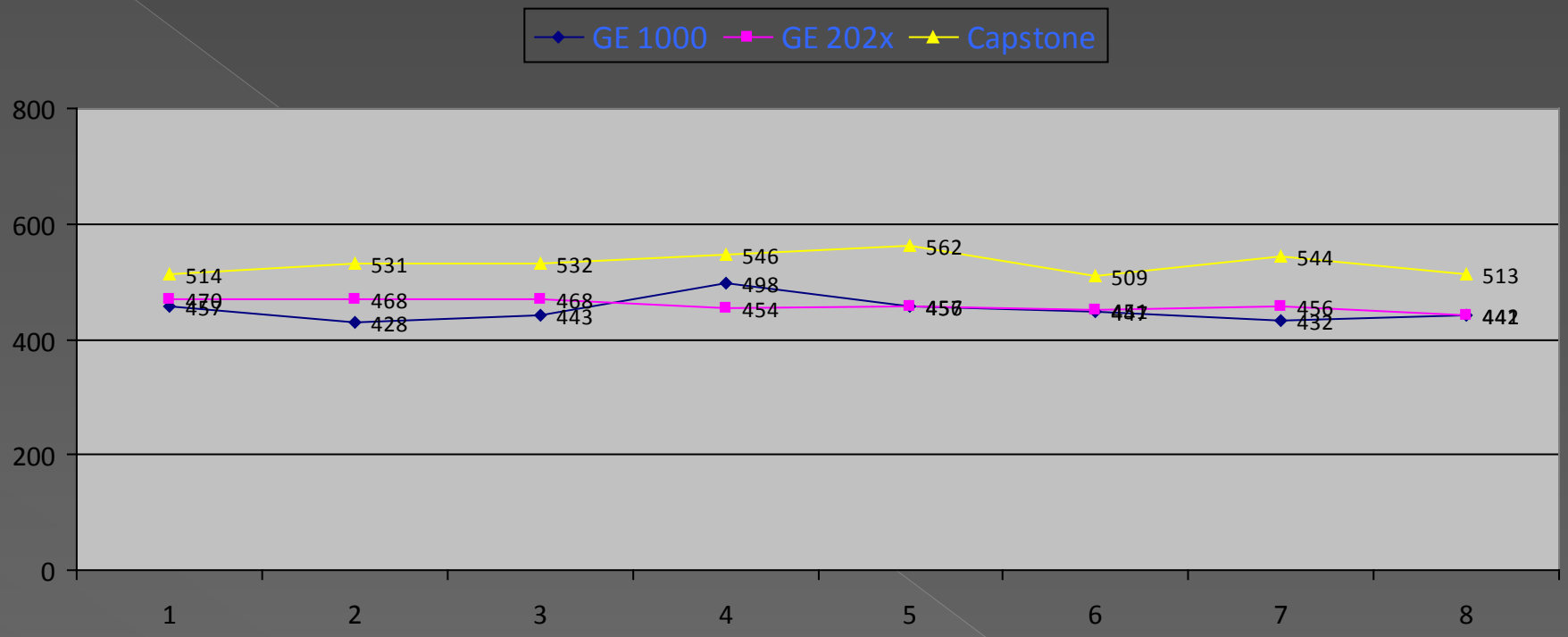
Kean University SAILS Results Fall 2013



1 = Developing a Research Strategy
2 = Selecting Finding Tools
3 = Searching
4 = Using Finding Tool Features
5 = Retrieving Sources
6 = Evaluating Sources
7 = Documenting Sources
8 = Understanding Economic, Legal, and Social Issues

Chart depicts results from SAILS Report for Fall 2013 (Kent State University, 2013 Dec.).

Kean University SAILS Results Fall 2013

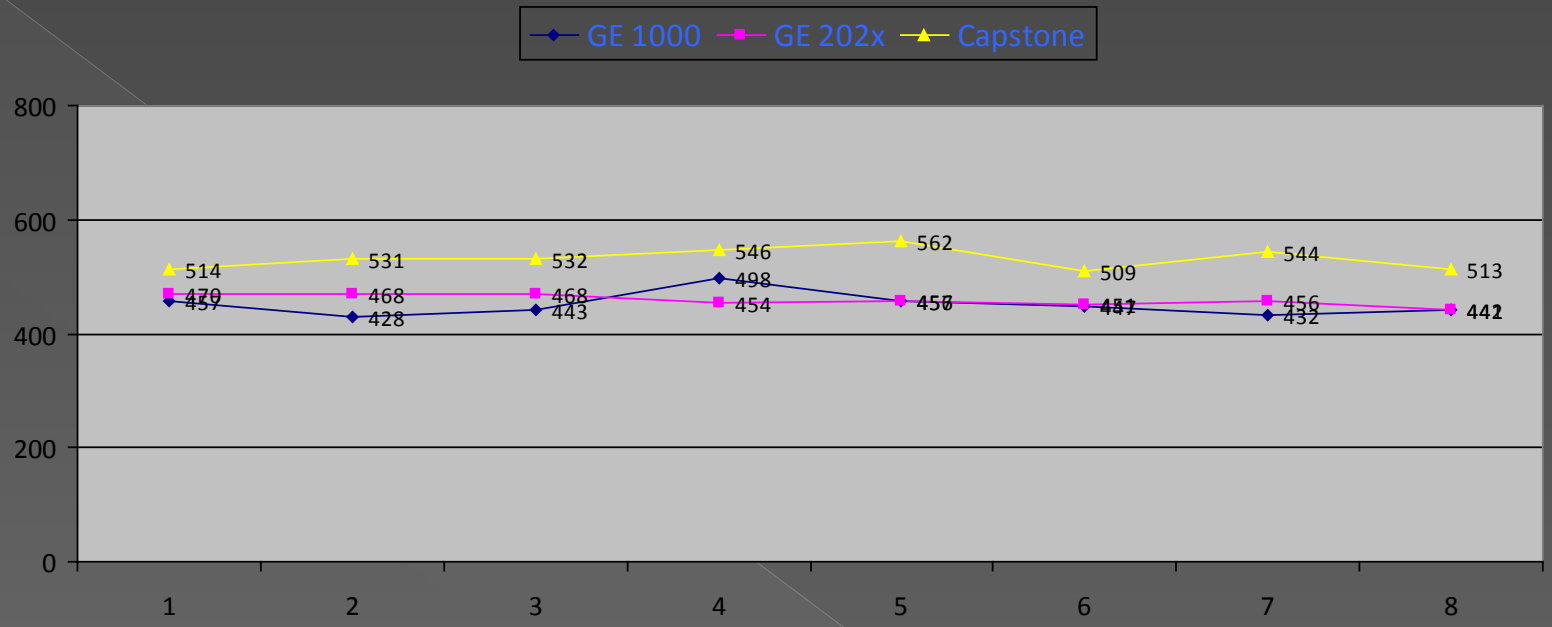


1 = Developing a Research Strategy
2 = Selecting Finding Tools
3 = Searching
4 = Using Finding Tool Features
5 = Retrieving Sources
6 = Evaluating Sources
7 = Documenting Sources
8 = Understanding Economic, Legal, and Social Issues

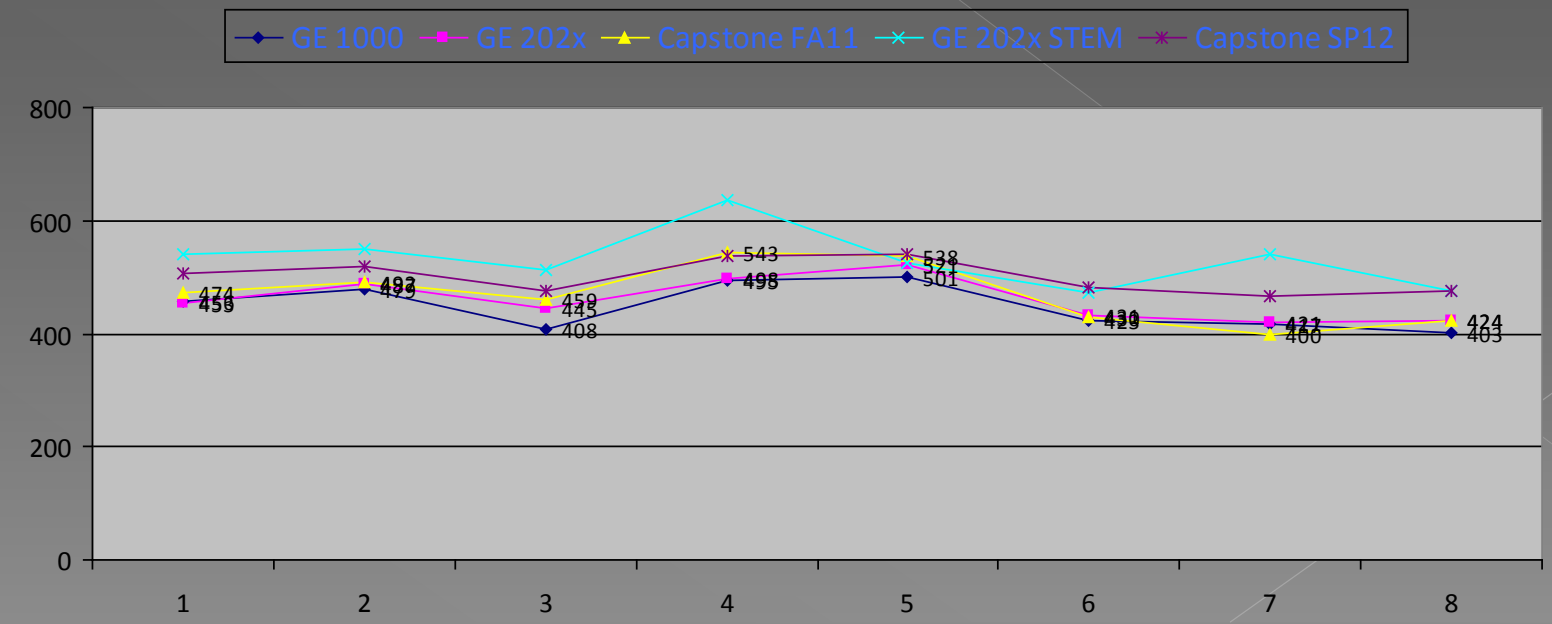
Analysis:

- Capstone scores are higher that GE 1000 and GE 202x scores for all eight skills.
- GE 202x scores were lower than or nearly equal to GE 1000 scores for four skills: Using Finding Tool Features (4), Retrieving Sources (5), Evaluating Sources (6), and Understanding Economic, Legal, and Social Issues (8).
- SAILS compared Kean's mean scores to the institution-type benchmark mean and found that Kean students struggled most with Selecting Finding Tools, followed by Using Finding Tool Features, Retrieving Sources, and Developing a Research Strategy. Kean students scored best with Documenting Sources and Understanding Economic, Legal, and Social Issues.

Kean University SAILS Results Fall 2013



Kean University SAILS Results Fall 2011-Spring 2012



Comparison of Fall 2013 Results to Results from Previous Test Administrations

- Fall 2013 Capstone scores are slightly higher than those collected in 2011-2012.
- In 2010-2011, GE 202x scores were lower than GE 1000 scores for one skill: Developing a Research Strategy. This is no longer the case for Fall 2013, but GE 202x scores are now lower than or equal to GE 1000 scores in four different skill areas: Using Finding Tool Features, Retrieving Sources, Evaluating Sources, and Understanding Economic, Legal, and Social Issues.
- Previous "closing the loop" actions had focused on creating assignments (i.e., the Annotated Bibliography Assignment with Information Literacy Rubric), online tutorials, and handouts to help students improve the following skills:
  - Evaluating Sources
  - Developing a Research Strategy

  For Fall 2013, these two areas are no longer ranked by SAILS as being the most difficult for Kean students (when compared to how students at other colleges perform).

Fall 2013 SAILS Results

SAILS skill set 1: Developing a Research Strategy			
	Transition to Kean GE 1000	Research & Tech GE 202x	Capstone
# participants	141	139	62
Average score	457	470	514
Standard error	±20	±23	±29
Group average score range	437-477	447-493	485-543

Analysis:

- The average Capstone scores are higher than GE 202x, and the average GE 202x scores are higher than GE 1000.
- The standard errors are quite large, which is most likely due to small sample size and large variability of scores.
- There is overlap in the average range of scores for each cohort, which indicates that the average scores for this skill set are not meaningfully different.

Fall 2013 SAILS Results

SAILS skill set 2: Selecting Finding Tools			
	Transition to Kean GE 1000	**Research & Tech GE 202x**	**Capstone**
# participants	141	139	62
Average score	428	468	531
Standard error	±28	±29	±37
Group average score range	400-456	439-497	494-568

Analysis:

- The average Capstone scores are higher than GE 202x scores, and the average GE 202x scores are higher than GE 1000 scores.
- The standard errors are quite large, which is most likely due to small sample size and large variability of scores.
- There is overlap in the average range of scores for each cohort, which indicates that the average scores for this skill set are not meaningfully different.

Fall 2013 SAILS Results

SAILS skill set 3: Searching			
	Transition to Kean GE 1000	Research & Tech GE 202x	Capstone
# participants	141	139	62
Average score	443	468	532
Standard error	±24	±26	±31
Group average score range	419-467	442-494	501-563

Analysis:

- The Capstone group average score range does not overlap with the GE 202x or GE 1000 score ranges, which indicates that the Capstone scores are meaningfully different from the other cohort scores for the Searching skill set.
- However, the overlap in group average score ranges for GE 1000 and GE 202x indicates that there is no meaningful difference between those two cohorts.
- Once again, the average scores show that the GE 202x are higher than GE 1000 and Capstones are higher than GE 202x, but the standard errors are quite large.

Fall 2013 SAILS Results

SAILS skill set 4: Using Finding Tool Features			
	Transition to Kean GE 1000	**Research & Tech GE 202x**	**Capstone**
# participants	141	139	62
Average score	498	454	546
Standard error	±33	±38	±48
Group average score range	465-531	416-492	498-594

Analysis:

- The average Research & Tech score was lower than the average Transition to Kean score.
- The R&T scores were so low that the R&T group average score range does not overlap with the Capstone group average score range, indicating that the scores for those two cohorts are meaningfully different.
- However, the T2K group average score range overlaps the group average score ranges for both R&T and Capstone, indicating that there is no meaningful difference among those group average scores.

Fall 2013 SAILS Results

SAILS skill set 5: Retrieving Sources			
	Transition to Kean GE 1000	Research & Tech GE 202x	Capstone
# participants	141	139	62
Average score	456	457	562
Standard error	±28	±31	±45
Group average score range	428-484	426-488	517-607

Analysis:

- The Capstone group average score range does not overlap with the GE 202x or GE 1000 score ranges, which indicates that the Capstone scores are meaningfully different from the other cohort scores.
- However, the overlap in score ranges for GE 1000 and GE 202x indicates that there is no meaningful difference between those two cohorts.
- The GE 1000 and GE 202x average scores are nearly identical, but the Capstone average scores are higher than the other two cohorts.
- The standard errors are quite large, which is most likely due to small sample size and large variability of scores.

Fall 2013 SAILS Results

SAILS skill set 6: Evaluating Sources			
	Transition to Kean GE 1000	**Research & Tech GE 202x**	**Capstone**
# participants	141	139	62
Average score	447	451	509
Standard error	±25	±25	±37
Group average score range	422-472	426-476	472-546

Analysis:

- The average scores for GE 202x are minimally higher than the GE 1000 average scores. The Capstone average scores are higher than GE 202x.
- However, the standard errors are quite large, which is most likely due to small sample size and large variability of scores.
- There is overlap in the range of scores for each cohort, which indicates that the average scores are not meaningfully different.

Fall 2013 SAILS Results

SAILS skill set 7: Documenting Sources			
	Transition to Kean GE 1000	**Research & Tech GE 202x**	**Capstone**
# participants	141	139	62
Average score	432	456	544
Standard error	±33	±31	±46
Group average score range	399-465	425-487	498-590

Analysis:

- The Capstone group average score range does not overlap with the GE 202x or GE 1000 score ranges, which indicates that the Capstone scores are meaningfully different from the other cohort scores.
- However, the overlap in group average score ranges for GE 1000 and GE 202x indicates that there is no meaningful difference between those two cohorts.
- The average scores show that the GE 202x are higher than GE 1000 and Capstones are higher than GE 202x.
- The standard errors are quite large, which is most likely due to small sample size and large variability of scores.

Fall 2013 SAILS Results

SAILS skill set 8: Understanding Economic, Legal, and Social Issues			
	Transition to Kean GE 1000	Research & Tech GE 202x	Capstone
# participants	141	139	62
Average score	441	442	513
Standard error	±25	±27	±34
Group average score range	416-466	415-469	479-547

Analysis:

- The Capstone group average score range does not overlap with the GE 202x or GE 1000 score ranges, which indicates that the Capstone scores are meaningfully different from the other cohort scores.
- However, the overlap in group average score ranges for GE 1000 and GE 202x indicates that there is no meaningful difference between those two cohorts. (The average scores and group average score ranges are nearly identical for GE 1000 and GE 202x.)
- Once again, the standard errors are quite large, which is most likely due to small sample size and large variability of scores.

Recommended Closing the Loop Actions

- Librarians and faculty teaching GE 202x should develop ideas for embedding existing online information literacy tutorials and research guides into the GE 202x course (for instance, through Blackboard).
- Librarians and faculty teaching GE 202x might consider "flipping the classroom" strategies that will require students to complete the existing online information literacy tutorials and foster additional active learning experiences as part of library instruction programming.
- Librarians and faculty teaching GE 202x should develop and implement activities that will help students improve the Selecting Finding Tools skill.
- The Library should pursue outreach to the academic departments in an effort to map information literacy to the curriculum beyond the GE courses (i.e., in 3000- and 4000-level courses that students will take prior to the capstone).
- The Library should monitor the upcoming revisions to the Information Literacy Competency Standards for Higher Education (Association of College and Research Libraries, 2013), which will incorporate threshold concepts and metaliteracy and will hopefully make it easier to work with faculty on integrating information literacy into the curriculum.

For more information:

- Information Literacy guide: http://libguides.kean.edu/informationliteracy
- Research and Technology (GE 202x) research guide: http://libguides.kean.edu/researchtech

References

Association of College and Research Libraries. (2000). *Information Literacy Competency Standards for Higher Education.* Retrieved from http://www.ala.org/acrl/standards/informationliteracycompetency

Association of College and Research Libraries. (2013). *Revising the Information Literacy Competency Standards for Higher Education*. Retrieved from http://acrl.ala.org/ilstandards/

Kent State University. (2013). *Project SAILS.* Retrieved from https://www.projectsails.org/

Kent State University. (2013, Dec.). *Results of the Standardized Assessment of Information Literacy Skills (SAILS) for Kean University Administration: 2013-2014 Gen Ed.* Kent, OH: Kent State University.

Middle States Commission on Higher Education. (2006). *Characteristics of Excellence in Higher Education.* Retrieved from http://www.msche.org/publications/CHX06060320124919.pdf

SLO: GEV1: Personal Responsibility - Introductory

GE 1000 – Transition to Kean

Semester: FALL 2013 REPORT DATE: 1/8/2014

Number of students: 294
Number of sections: 37

Personal responsibility is measured through the CSFI - The College Success Factors Index (CSFI) online, standardized instrument. This instrument is used to measure student performance on 10 student success criteria. The first criterion assesses "Responsibility/Control" where personal responsibility and ownership are assessed. For more information about this instrument, please visit: http://www.cengage.com/tlconnect/client/product/findProduct.do?productId=515

Number of students: 294
Number of sections: 37

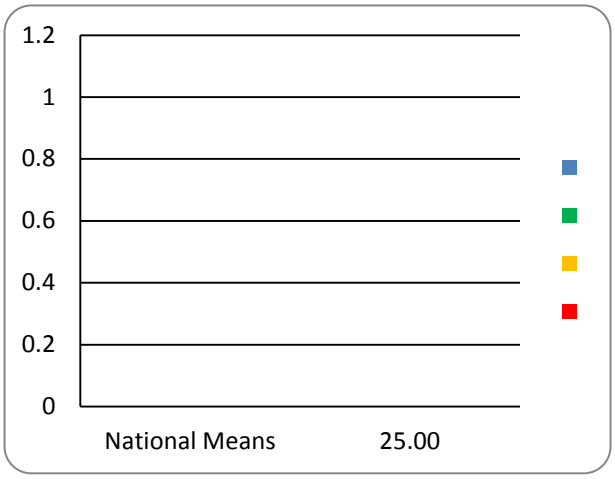
Factor	Good	Average	Watchline
Responsibility / Control	17	21	25
Competition	16	20	24
Task Planning	16	20	24
Expectations	17	21	25
Wellness	20	24	28
Time Management	18	22	26
College Involvement	19	23	27
Family Involvement	14	18	22
Precision	16	20	24
Persistence	19	23	27

Figure 1. CSFI Instrument Breakpoints
(Lower numbers = greater proficiency)

Table 1. Mean Scores for Responsibility/ Control

	Fall 2012	Fall 2013
	Post-test	Post-test
Kean Means	**16.2**	**16.3**
CSFI "Good"	17.0	17.0
CSFI "Average"	21.0	21.0
CSFI "Watchline"	25.0	25.0

Figure 2. **Mean Scores for Responsibility/ Control**



Discussion/Action/Closing the Loop:

Based on the comparative data, it is evident that students are exceeding what the instrument indicator defines as “good” performance in both student cohorts. The scores also indicate that “responsibility and control” yielded the highest results among all 10 criteria assessed.

Assessment of all Criteria: Consistently, Responsibility/Control and Expectations have been the strongest factors and Competition and Precision have been the weakest factors for this population. With the restructuring of the GE 1000 course the embedded course content with its emphasis on personal development will focus on cultivating competition and precision. But we need to be more coherent in our definition of ‘cultivating competition’ and then ‘precision’. So according to the CSFI assessment, Competition for successful students becomes internalized-they compete with themselves. So we are not trying to promote competition between, but internal standards and a sense of exceeding one’s own expectations. We think first that understanding this definition in more detail will help both T2K instructors and students to embrace competition more. The new T2K focuses on personal development in the new college context and therefore provides time for teacher and student to consider ‘Competition’. With regard to Precision, successful students approach their education by being exact, careful with details and specific with assignments.

Actions: Students enrolled in the new GE 1000 course will be required to demonstrate their abilities with a collection of works through an e-portfolio (components of the portfolio will be assessed via two AAC&U VALUE rubrics – Civic Engagement and Lifelong Learning). This portfolio will also be used as a platform for self-expression to be maintained over time. As the emphasis of the course is personal development, students will have the opportunity to use their strengths, such as personal responsibility, as reported via the CSFI results to develop their weaker areas.

ENGAGENOW

Change to Student View | Tools | Help | Sign Out | Welcome Gwen Belon

Home | Courses | Users | Assignments | Gradebook | Study Tools

Report Creator: CSFI Report

Exit Report Creator

Set Up Report — Change Setup

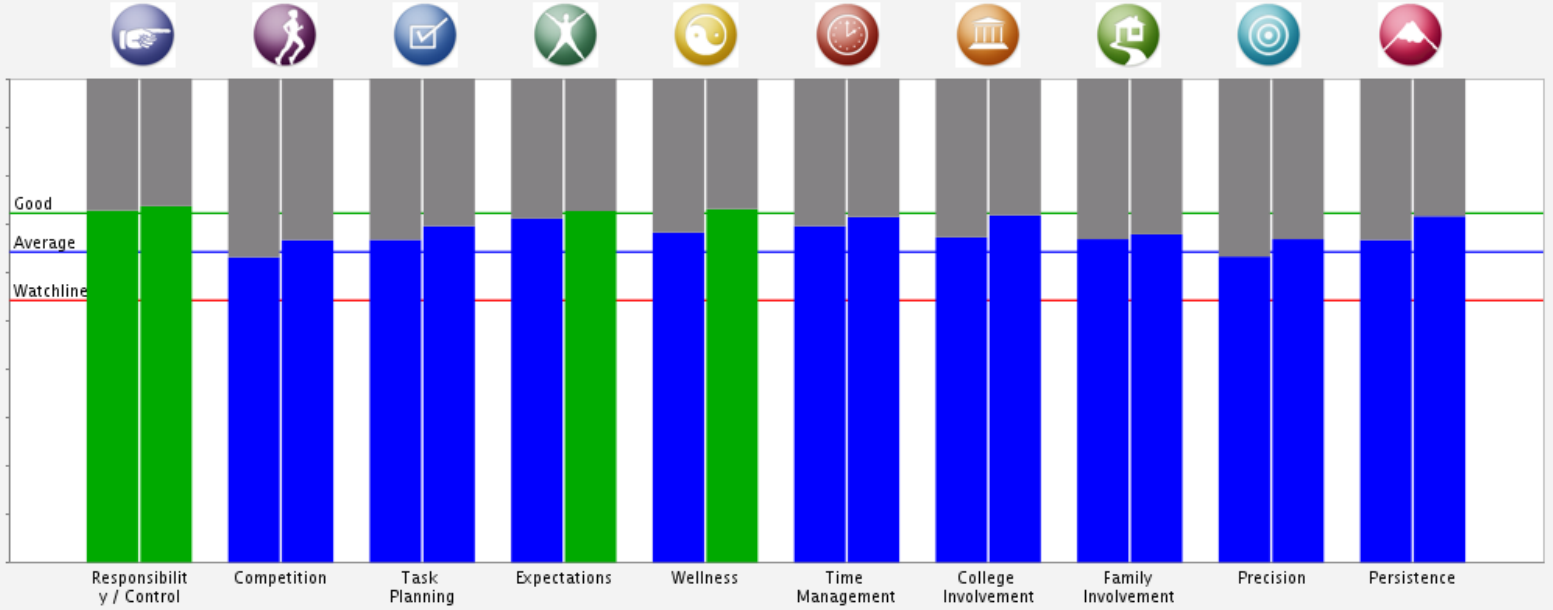
View Report — Print Report | Export Report

CSFI Report for Administrators
Generated on January 23, 2014 @ 8:14:43 AM

Factor scores in red italic indicate that the score is below the watchline for that factor.

Cross-Instructor Analysis
Student Participation
667 of 699 students have taken the pre-test.
309 of 699 students have taken the post-test.

Cross-Instructor Summary



Cross-Instructor Details

										
Bailey, Billie J	16.8/10.5	20.2/10.0	19.6/13.0	18.5/14.0	22.7/17.5	19.7/11.0	20.0/13.5	17.4/12.5	20.4/14.0	22.0/14.5
Bances, Jessica	15.1/15.0	21.6/*24.0*	17.3/18.0	15.2/18.0	19.0/25.0	15.4/19.0	21.5/19.0	14.7/16.0	21.8/22.0	21.5/20.0
Banner, Lilliam	15.9	20.7	19.3	15.7	22.9	19.1	20.6	17.1	18.3	18.6
Bathelus, Charlene	14.5/17.2	18.1/21.2	17.6/18.0	16.8/17.8	21.4/19.5	20.4/19.8	20.8/20.0	15.3/16.5	19.7/17.5	21.4/21.2
Boseman, Katrina	17.0/15.4	19.3/15.0	19.8/16.6	18.8/17.4	24.6/21.6	21.0/17.4	21.4/17.8	20.3/17.2	19.4/15.6	20.4/15.6
Brown, Alfred	18.1/15.7	21.8/18.2	20.7/17.7	19.8/17.4	23.0/20.1	21.6/18.1	22.8/20.2	18.0/15.6	22.5/19.2	24.8/22.8
Brown, Charline	16.8/17.3	21.4/19.6	18.4/18.1	17.8/17.4	22.9/19.3	19.3/18.6	22.6/19.6	16.9/16.6	20.6/19.2	22.2/18.8
Dobosiewicz, John	17.0/13.2	20.5/16.2	18.2/13.2	18.7/14.0	21.0/16.0	18.4/15.2	20.9/16.2	16.7/13.2	20.2/16.5	21.6/18.5
Donelson, Manuel K	18.1/13.7	21.7/20.3	19.5/16.3	18.2/16.7	23.7/17.0	21.1/14.3	22.1/16.3	16.8/17.3	20.2/18.7	22.4/15.7
Dowd, Dawn Marie	14.0/15.5	14.3/19.5	15.0/16.0	12.7/14.5	20.0/23.0	15.0/22.0	16.0/16.0	15.0/16.5	15.7/18.5	14.7/18.5
Espinal, Sandra	16.5/15.4	19.7/17.6	17.6/16.0	17.1/16.0	21.6/19.6	18.6/16.6	19.7/17.7	15.4/15.0	20.8/18.4	21.1/18.0
Gaines, LaTysha	17.8/16.6	20.7/21.8	19.6/18.5	18.4/16.5	22.1/19.6	20.7/18.2	21.9/19.8	16.5/16.7	21.4/22.1	22.8/22.4
Grant, Coretta	16.7/14.0	20.4/21.5	19.7/15.0	17.6/18.0	20.8/17.0	19.0/16.5	21.8/18.0	17.0/17.0	20.7/18.0	21.8/16.5
Harnett, Janette	16.0/16.7	20.0/18.0	18.5/16.8	17.4/17.5	22.0/19.0	19.0/18.4	21.2/19.2	17.5/17.8	21.2/16.6	21.1/17.8
Isiwele, Michael E	15.6/15.6	19.2/19.0	17.8/17.0	16.5/16.7	21.3/21.4	19.1/18.7	20.5/19.1	15.4/14.6	19.8/19.3	21.2/20.7
Jackson, Veronica	14.7	19.6	17.7	16.1	20.2	17.9	21.1	14.5	20.1	22.0
Kikot, Erinda	17.1/18.0	20.7/18.6	19.0/18.0	18.0/17.2	22.0/18.8	19.6/19.5	21.9/19.6	16.8/15.8	20.6/18.5	22.4/19.3
Lawhorn, Kiana	16.8/13.2	21.5/19.0	19.6/14.5	17.6/14.8	21.2/15.8	18.6/14.0	21.9/16.8	16.6/12.5	20.6/15.2	23.0/17.2
McNeil, Jan	23.2	21.3	22.2	20.5	24.7	23.3	23.8	20.3	22.0	20.2
Mesonas, Leonard	15.9/16.0	20.6/19.3	17.8/17.0	17.0/16.0	22.0/18.7	18.3/17.7	20.5/18.9	15.6/15.0	20.3/18.2	21.3/19.1
Omukoba, Deckillah	16.8/16.9	19.6/18.7	18.5/17.7	16.3/17.1	22.0/19.3	19.8/20.1	21.8/19.8	16.1/15.4	19.6/20.6	22.0/20.4
Rivera, Maximina	17.3/21.0	22.1/21.8	19.3/20.2	16.6/21.2	23.4/27.5	19.9/25.5	21.9/23.8	16.3/*22.2*	20.3/22.0	22.3/21.5
Rosa, Andrea	17.6	20.3	18.3	17.3	21.9	19.8	23.2	16.6	19.7	22.0

Rosario, Wilfredo	16.2/15.0	19.3/17.1	18.0/16.1	16.3/15.3	20.7/19.3	18.0/17.7	19.9/17.7	16.2/16.5	19.9/17.8	21.4/18.9
Samms, Kimika	16.3/15.3	21.3/18.6	18.3/16.7	17.8/16.9	21.7/18.9	18.8/17.4	21.2/19.3	16.5/15.7	20.4/18.4	21.5/18.7
Sanchez, Grace	15.1/16.8	19.3/20.9	16.3/19.8	15.7/18.2	19.5/20.2	18.2/20.7	19.9/20.4	16.2/15.6	19.2/21.1	20.8/22.6
Santos Cedeno, Omar	14.8/16.2	19.5/16.8	20.2/17.2	16.2/14.2	23.5/18.0	17.8/16.2	17.7/17.8	18.8/14.8	19.8/15.8	19.5/14.8
Satchell, Elizabeth	17.4/16.8	20.2/19.6	19.7/18.7	18.4/17.6	21.3/20.5	19.9/19.9	23.6/22.3	17.3/19.1	20.8/19.7	22.0/19.9
White, Mary Bridget	16.1/15.1	22.0/18.8	18.7/17.0	17.5/14.6	22.5/22.2	19.0/19.4	21.5/18.0	16.7/15.2	19.9/17.6	20.9/20.9
Wilson, Stephen	17.6/21.0	20.2/22.0	20.8/22.0	18.9/22.0	21.6/25.0	20.6/21.0	22.2/22.0	17.4/20.0	21.7/21.0	21.0/21.0
Mean	16.6/16.2	20.4/18.7	18.7/17.2	17.5/16.7	21.9/19.5	19.2/18.3	21.4/19.1	16.6/16.1	20.4/18.6	21.7/19.2
Mean as Percent National Mean	66.5/64.7	85.2/77.8	77.7/71.8	69.8/66.7	78.2/69.6	74.0/70.3	79.2/70.8	75.4/73.1	84.9/77.4	80.2/71.1
National Mean	25.0/25.0	24.0/24.0	24.0/24.0	25.0/25.0	28.0/28.0	26.0/26.0	27.0/27.0	22.0/22.0	24.0/24.0	27.0/27.0

Cross-Instructor Strongest Factors

- Responsibility / Control
- Expectations
- Time Management

Cross-Instructor Weakest Factors

- Competition
- Precision
- Persistence

How to interpret the Graph

Student performance against each factor is judged according to the following breakpoints.

Factor	Good	Average	Watchline
Responsibility / Control	17	21	25
Competition	16	20	24
Task Planning	16	20	24
Expectations	17	21	25
Wellness	20	24	28
Time Management	18	22	26
College Involvement	19	23	27
Family Involvement	14	18	22
Precision	16	20	24
Persistence	19	23	27

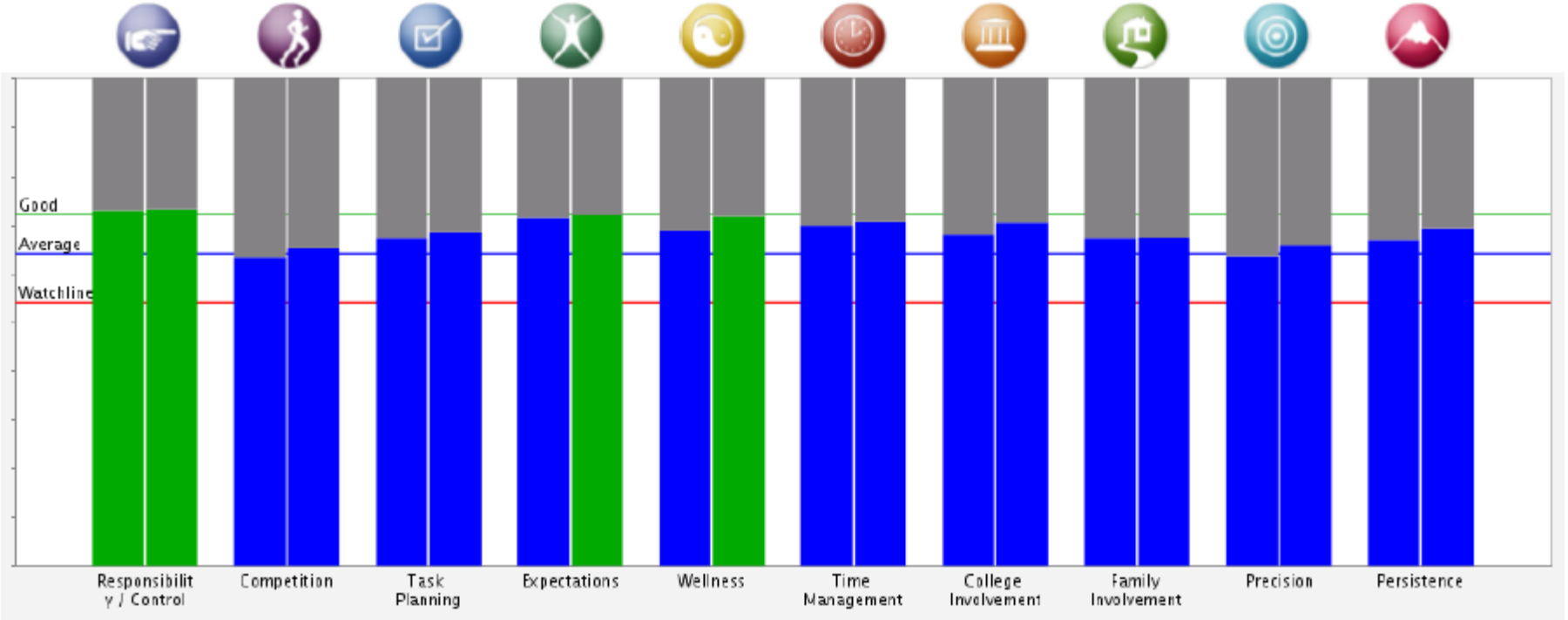
Note that the better a student performed, the lower his or her score. For instance, a student who scored 15 on the "Responsibility / Control" factor earned a "Good" score. In contrast, a student who scored 27 on the "Expectations" factor falls below the Watchline.

CSFI Report for Administrators
Generated on January 10, 2014 @ 7:27:15 AM

Factor scores in red italic indicate that the score is below the watchline for that factor.

Cross-Instructor Analysis
Student Participation
625 of 640 students have taken the pre-test.
294 of 640 students have taken the post-test.

Cross-Instructor Summary



Cross-Instructor Details

	RESPONSIBILITY / CONTROL	COMPETITION	TASK PLANNING	EXPECTATIONS	WELLNESS	TIME MANAGEMENT	COLLEGE INVOLVEMENT	FAMILY INVOLVEMENT	PRECISION	PERSISTENCE
Bathelus, Charlene	15.9/14.0	20.6/18.0	19.2/16.0	18.1/14.5	22.3/17.8	16.2/13.2	21.2/18.0	16.9/17.2	21.4/21.5	22.6/18.0
Boseman, Katrina	16.6/18.2	21.9/20.0	18.1/19.0	17.4/17.3	23.2/21.5	18.6/20.3	23.1/21.0	16.3/18.7	19.4/19.8	21.8/20.5
Brown, Alfred	16.7/13.8	20.6/21.0	19.2/18.5	17.7/15.5	21.2/18.2	19.4/19.2	21.1/20.5	16.4/12.0	20.6/20.0	23.2/23.8

Brown, Charline	15.7/18.7	19.6/20.2	17.4/19.2	16.3/18.6	21.5/22.0	18.4/21.5	19.4/20.5	16.0/16.8	18.6/19.5	20.3/21.4
Daro, Jennifer	16.6/15.7	19.1/17.3	17.9/16.5	16.4/14.7	20.0/18.9	18.4/18.0	19.9/18.7	16.3/14.7	20.1/17.7	20.1/18.7
Di Michelle, Joe	16.5/16.7	19.7/19.0	18.0/18.0	17.0/17.2	20.6/20.2	19.2/18.8	20.8/20.1	16.2/17.6	21.0/19.3	20.8/18.9
Donelson, Manuel K	17.0/15.8	20.2/18.4	18.1/16.9	17.6/17.1	19.4/18.4	18.0/16.5	21.0/19.8	16.0/15.2	18.4/18.4	20.4/20.3
Dowd, Dawn Marie	18.1/17.4	18.9/21.5	19.0/18.9	17.7/18.5	22.3/22.9	20.1/19.0	22.0/19.9	17.2/16.7	19.9/20.2	19.3/21.4
Espinal, Sandra	16.2/14.8	19.6/18.2	19.6/17.8	17.6/16.1	22.5/19.4	19.7/18.8	19.2/16.0	15.4/16.2	22.8/20.1	22.6/21.8
Freeland, Marilyn	17.0/20.2	19.0/19.2	18.1/20.2	16.8/19.4	22.8/21.8	19.5/19.4	19.9/19.4	17.3/18.0	19.2/17.6	20.3/20.4
Gaines, LaTysha	15.0/13.6	20.6/18.2	17.2/15.0	16.7/14.6	22.2/18.6	19.4/15.3	20.2/17.7	14.8/14.8	19.3/18.8	21.4/19.9
Green, Tramanisha	18.7/15.2	21.6/19.2	20.9/16.5	18.8/17.3	21.9/17.5	21.9/17.2	24.3/20.0	15.8/15.3	22.0/19.8	23.8/20.5
Harnett, Janette	13.2	15.4	15.4	14.8	20.2	14.2	20.8	16.8	16.2	17.8
Jackson, Veronica	14.6/11.0	19.4/16.0	16.8/19.0	14.0/13.0	19.6/17.0	16.4/14.0	19.0/17.0	14.8/11.0	19.0/15.0	20.0/15.0
Lawhorn, Kiana C	16.5/15.0	18.9/22.9	17.9/18.0	17.3/17.6	21.4/22.1	18.8/18.0	18.8/19.1	16.4/16.3	19.2/19.7	21.3/21.1
Marano, Gina	12.8	18.8	14.8	16.0	20.8	16.8	18.6	13.2	21.6	20.4
Mesonas, Leonard	16.2/13.0	20.4/18.0	18.2/16.5	17.1/15.5	21.2/22.5	18.9/18.5	20.8/18.0	15.1/14.0	20.0/18.5	20.8/20.5
Rivera, Maximina	17.1/21.3	20.7/21.0	19.3/21.0	17.7/21.7	23.1/23.7	20.5/19.7	21.3/22.3	17.7/21.0	19.2/20.3	21.9/22.0
Rosa, Andrea	16.1/14.8	20.1/17.4	17.7/15.9	17.3/15.7	21.9/20.3	18.9/16.1	21.3/18.3	17.6/15.2	20.2/17.6	22.0/19.0
Samms, Kimika	15.9/15.9	20.6/20.9	18.4/17.9	17.2/17.3	21.1/19.6	18.3/18.9	21.6/21.6	15.2/15.9	20.4/19.2	22.3/21.9
Satchell, Elizabeth	16.9/16.3	20.3/19.5	18.4/18.2	17.6/17.1	21.9/19.5	19.6/19.0	21.3/20.4	16.5/16.6	20.2/19.2	21.7/19.7
Schwedt, Karla	16.7/15.8	21.7/20.3	19.3/18.1	18.2/17.6	21.9/19.7	20.1/18.8	22.1/21.5	17.8/17.0	21.2/20.3	22.5/21.4
Sjoquist, Richard J										
Snowden, Scott	17.6/18.0	22.4/21.8	19.2/17.8	19.1/17.5	22.6/23.0	20.2/21.0	21.8/19.7	16.2/18.5	21.3/19.5	23.2/20.5
White, Mary Bridget	16.4/14.8	21.9/17.3	17.2/15.8	16.2/14.4	21.2/17.9	18.4/16.7	21.1/17.0	16.6/15.3	19.8/16.1	21.6/16.9
Wilson, Stephen	17.9	21.1	19.1	17.8	22.9	18.3	24.1	18.9	21.1	22.9
Mean	16.4/16.3	20.2/19.4	18.3/17.7	17.2/17.0	21.6/20.1	19.0/18.6	21.0/19.7	16.3/16.3	20.1/19.0	21.5/20.2
Mean as Percent National Mean	65.7/65.3	84.3/80.7	76.2/73.9	69.0/67.9	77.1/71.8	73.0/71.6	77.6/72.9	74.1/73.9	83.8/79.2	79.5/74.9
National Mean	25.0/25.0	24.0/24.0	24.0/24.0	25.0/25.0	28.0/28.0	26.0/26.0	27.0/27.0	22.0/22.0	24.0/24.0	27.0/27.0

Cross-Instructor Strongest Factors

- Responsibility / Control
- Expectations
- Time Management

Cross-Instructor Weakest Factors

- Competition
- Precision
- Persistence

How to interpret the Graph

Student performance against each factor is judged according to the following breakpoints.

Factor	Good	Average	Watchline
Responsibility / Control	17	21	25
Competition	16	20	24
Task Planning	16	20	24
Expectations	17	21	25
Wellness	20	24	28
Time Management	18	22	26
College Involvement	19	23	27
Family Involvement	14	18	22
Precision	16	20	24
Persistence	19	23	27

Note that the better a student performed, the lower his or her score. For instance, a student who scored 15 on the "Responsibility / Control" factor earned a "Good" score. In contrast, a student who scored 27 on the "Expectations" factor falls below the Watchline.

Options on Exporting your Report

Please note that you have two choices in exporting the information from this report:

- Use the "Export" button to export this data into an easily to manipulate XLS spreadsheet.
- Print this report from your browser, either physically or to a file such as a PDF. This method maintains the look of the on screen report.

SLO: GEV2: Ethical and Social Responsibility - Introductory

GE 1000 – Transition to Kean

Semester: FALL 2013 REPORT DATE: 1/8/2014

Number of students: 561
Number of sections: 47

Ethical and Social Responsibility was assessed in GE 1000 using the Defining Issues Test (DIT2) – an instrument designed to measure moral decision making. For information on the DIT2 test, please visit: http://www.centerforthestudyofethicaldevelopment.net/Instruments,%20Services,%20and%20Materials.htm

927 students were administered the online assessment, 561 data sets were valid and usable for analysis.

Figure 1. DIT2 National Means and Standard Deviations

Table 3a. DIT2 Means and Standard Deviation for Schema Scores by College Year of respondents, who indicated their educational level in one of the following categories, reported that they were U.S. citizens and English was their primary language.

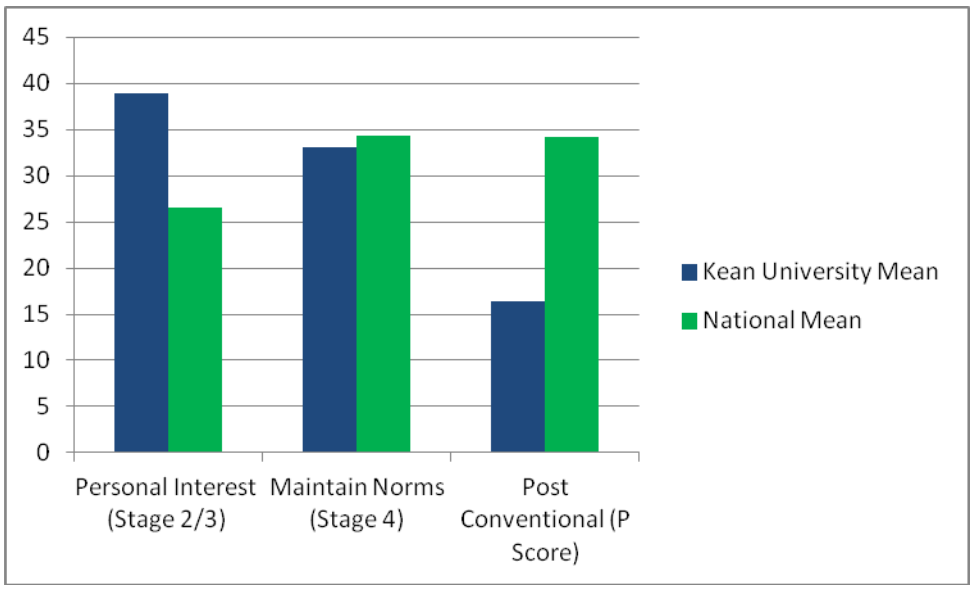
	Schema Scores								
Educational	Personal Interest (Stage 2/3)			Maintain Norms (Stage 4)			Post Conventional (P score)		
Level	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N
Freshman	26.52	12.27	10327	34.29	13.60	10327	34.11	14.99	10327
Sophomore	25.71	12.28	3542	34.28	13.74	3542	35.23	15.35	3542
Junior	24.88	12.43	6913	35.49	13.89	6913	34.91	15.28	6913
Senior	23.67	12.27	12207	35.71	14.13	12207	35.97	15.27	12207

Source: Dong, Y. University of Alabama, Office for the Study of Ethical Development. (n.d.). Norms for DIT2: From 2005-2009. Retrieved January 23, 2014, from http://www.ethicaldevelopment.ua.edu/wp-content/uploads/2010/11/Norms-for-DIT2-05-09.pdf

Table 1: Kean University Mean Scores Compared to National Mean Scores

	Personal Interest (Stage 2/3)	Maintain Norms (Stage 4)	Post Conventional (P Score)
Kean University Mean	38.84	33.04	16.44
National Mean	26.52	34.29	34.11

Chart 1: Kean University Mean Scores Compared to National Mean Scores



Discussion/Findings:

A higher Post Conventional Score (P-Score) is representative of a higher level of moral development. The students in this cohort scored lower to students of a congruent population (freshmen) at the national level (on average). The Kean University cohort has a mean P- score of 16.44 compared to the national average, 34.11 (almost double).

This cohort also showed disparity with Personal Interest scores compared to the National Average. The mean score of the cohort for Personal Interest was 38.84 compared to that of the National Average, 26.52. It is suggested by way of the historical research that someone who is more morally developed, which would also equate to a high Post Conventional (P) score, would have a low(er) Personal Interest score.

Where this cohort does align to a degree with the national average is the Maintaining Norms component. KU students averaged 33.04 and the national freshman population averaged 34.29.

This cohort has an overall high Personal Interest score and a low Post Conventional score which based on the assessment suggests that we need to re-examine how we are teaching ethical values.

Actions/Closing the Loop:

When reviewing the findings it should be noted that the course (GE 1000) in which the students completed the assessment/test did not place a particular emphasis on ethical and moral development by way of course assignments and projects. GE1000 was originally envisaged to be about personal development, but over the years it has been added to by various teachers and leaders until it has become (rather typically) a depository for every faculty's hopes and dreams for their students – from

the writing of thesis statements through to starting their co-curricular transcript. For instance, though one of the course objectives is to address ethical responsibility, it had become enacted as teaching ethical behaviour through discussing plagiarism and academic integrity. What was more of a particular focus in GE 1000 was civic engagement by way of students' required out of class community service participation. It is likely that the courses taken simultaneously with GE 1000 (typically first semester freshman year) also did not have a particular emphasis on moral development. We have now written a new GE 1000 which takes the course back to roots in a modern manner

Within the "new" GE 1000 course (implemented spring 2014) students will continue to participate in civic based out of class activities and reflect in writing about them. In the newly revised course students will also have more of an opportunity to cultivate their moral development. The new course focuses on a personal development that embraces the enrichment potential of certain values and an appreciation for diversity, a personal development which also extends beyond the self and speaks to how individuals treat one another. Students will engage in conversation about values and ethics as they respond orally and in writing through journal assignments to selected readings that speak to these areas. Students will confront ethical ideas through these active approaches to learning.

SLO V2: Ethical and Social Responsibility

OVERALL SUMMARY

Semester: Fall 2013

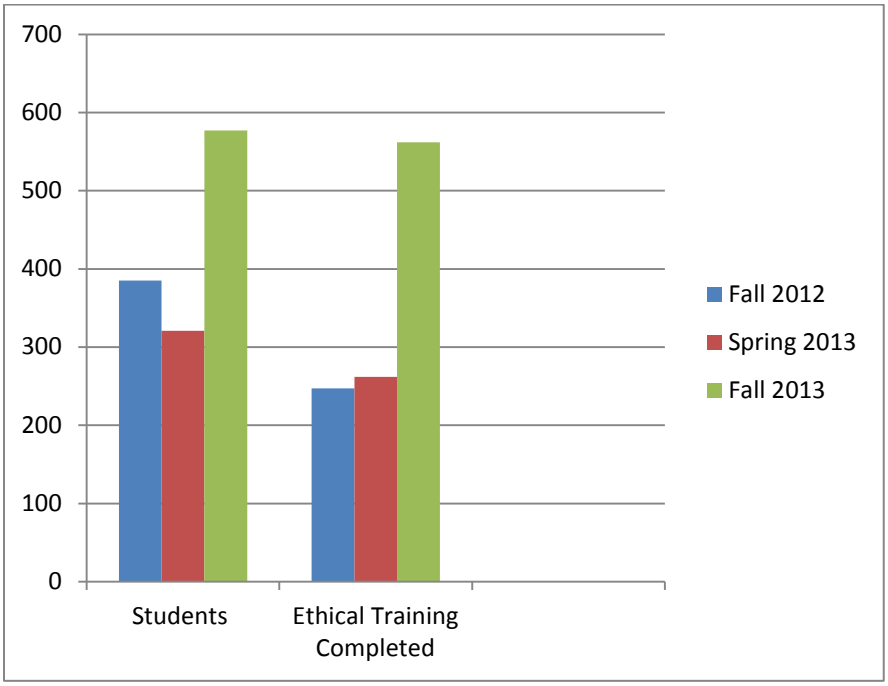
The course being assessed is Research and Technology, GE202x in which students during their coursework are required to complete the training of the National Institute of Health (NIH) and earn a numbered Certificate of Completion that shows students are qualified to ethically test Human Subjects. The Certificate is earned after completing the online training that follows the standards defined by the Office of Health and Human Services of the U.S. Government for the training of researchers and members of Internal Review Boards (IRB) (http://www.hhs.gov/ohrp/education/index.html) and it attests as to being trained to ethically conduct Experimentation on Human Subjects: (http://phrp.nihtraining.com/users/login.php).

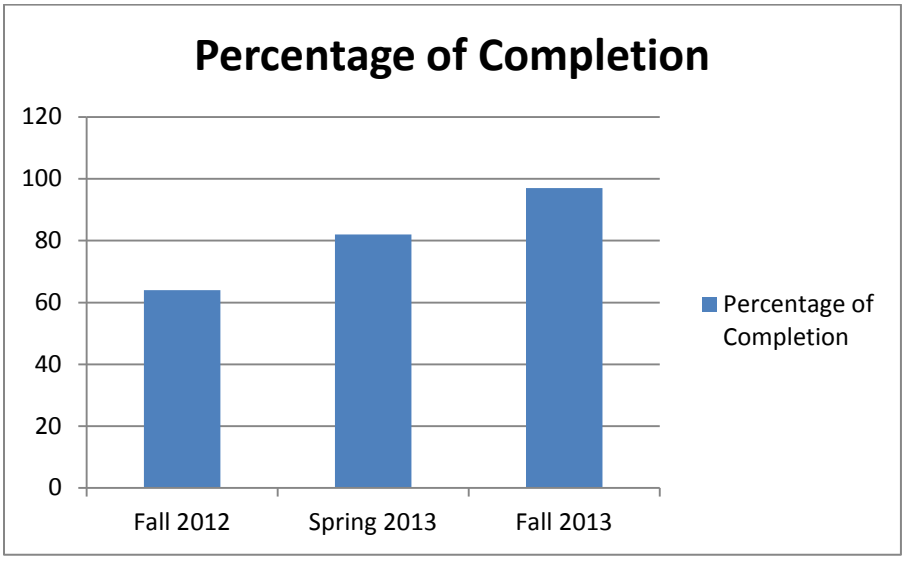
Training and Instrument of Assessment:

Certificate of Completion:

This Certificate has the name of the person trained and the date and number that identifies the Certificate.

In the Fall 2013, 577 registered students from 22 sections of the course Research and Technology were assessed and of those 562 earned the Certificate of Completion showing they are trained to conduct research following ethical standards as defined by the NIH. This represents a completion rate of 97% of the students assessed. The goal set for the Spring 2013 was a completion rate of 80% and was achieved with 82%. The longitudinal analysis of the data shows sustained growth: from 64% to 82% to 97% of successful completion rate.





Discussion

Students' success at the intermediate level in Ethical and Social Responsibility is obviously excellent. However, this is a pass/fail type of assessment. We would like to move towards a more nuanced assessment that will allow us to explore in greater detail the strengths and

weaknesses of our approach to teaching and learning the GE Value SLOs. We are now discussing how this should occur – whether through more of a relationship to co-curricular activities, Civic Engagement, or even the elision of this SLO with another Value SLO to broaden the approach. Meanwhile, the expectation to pass the NIH test remains in the course syllabus as posted on Blackboard for students. Whatever its future role in assessment, the work for the test also makes students more aware of the importance of having consent to test human subjects and translate those skills into other professional areas.

Recommendation

Faculty remains committed to assess students' ethical training and has presented inquiries to expand the scope of the assessment to translate it into transferable skills beyond those of research.

Considerations have been presented to explore other instruments of assessment such as implementing a rubric.

SLO V3 Civic Engagement

Transition to Kean GE1000

Semester: FALL 2013

REPORT DATE: 1/8/2014

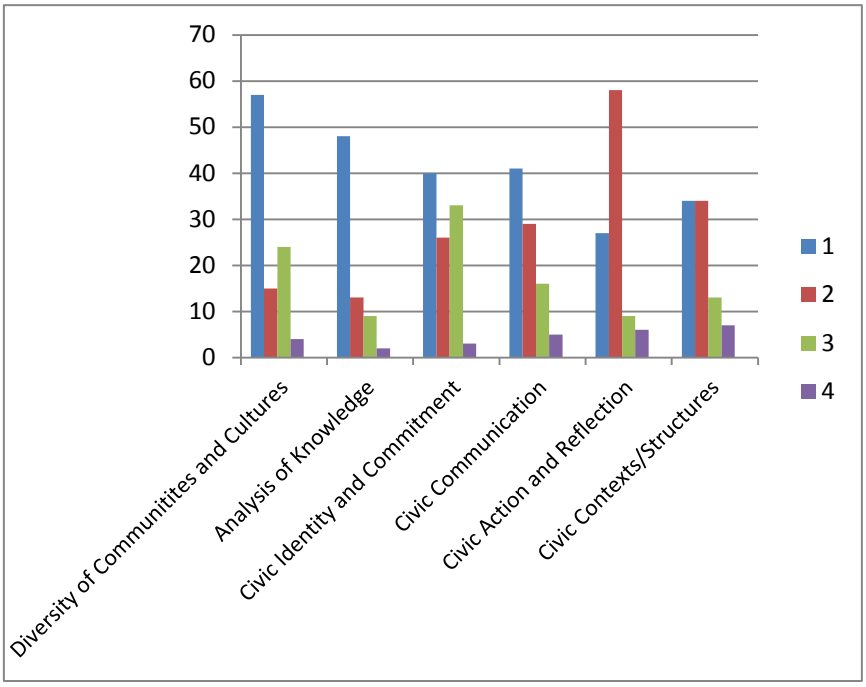
Civic Engagement is assessed following student progress in volunteering and participating in community activities coordinated by the Center for Leadership and Service. Students reflect on their experience, and the School of General Studies assesses their participation through a written reflection using the Civic Engagement Rubric of the AACU.

Number of students: 102
Number of sections: 12

Distribution of Scores

Mean scores overall:

Diversity of Communities and Cultures	1.7
Analysis of Knowledge	1.1
Civic Identity and Commitment	2.0
Civic Communication	1.6
Civic Action and Reflection	1.9
Civic Contexts/ Structures	1.7

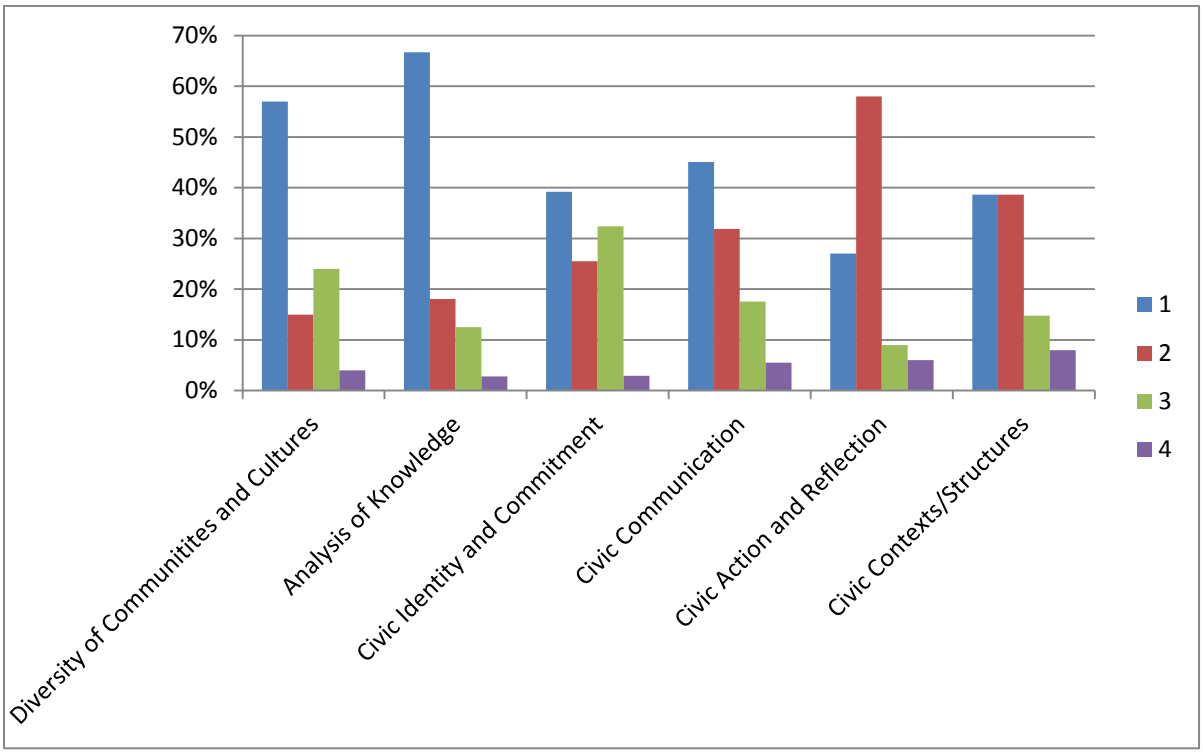


Frequency by score

	Diversity of Communities and Cultures	Analysis of Knowledge	Civic Identity and Commitment	Civic Communication	Civic Action and Reflection	Civic Contexts/ Structures
1	57	48	40	41	27	34
2	15	13	26	29	58	34
3	24	9	33	16	9	13
4	4	2	3	5	6	7

Percentage distribution

	Diversity of Communities and Cultures	Analysis of Knowledge	Civic Identity and Commitment	Civic Communication	Civic Action and Reflection	Civic Contexts/Structures
1	57%	67%	39%	45%	27%	39%
2	15%	18%	25%	32%	58%	39%
3	24%	13%	32%	18%	9%	15%
4	4%	3%	3%	5%	6%	8%



Discussion/Findings:

A pilot of the Civic Engagement rubric was made for the first time this fall 2013 semester. A total of 102 students across 12 sections of GE 1000 Transition to Kean (T2K – First Year Seminar) submitted reflection papers as a result of their Out of Class Civic Engagement Activity participation. Students were responsible for participating in a civic/community service based activity organized by the Center for Leadership and Service and writing a reflective summary about their involvement. Of the 102 student work samples that were assessed via the Civic Engagement Rubric very few achieved capstone level for any of the six dimensions of the rubric. This was to be expected for first semester freshmen.

A preliminary norming session was held with Transition to Kean faculty and the Center for Leadership and Service Director. The application and use of the rubric was discussed and there were a few expectations noted, one being the unlikelihood of a first year student achieving capstone level or upper level milestone scores on the rubric on any of the six categories.

Recommendations/Actions/Closing the Loop:

As this was a pilot, we have unsurprisingly a number of recommendations related to assessment as well as to change suggested in classroom practice.

- Revising reflective work sample
    - The work sample used as the assessment prompt is not descriptive in its explanation of the expectations of the assignment. The explanation given simply states to complete a summary of the participation/involvement. With a more detailed expectation list, perhaps students can better deliver via their reflection paper a clearer interpretation of their level of civic engagement.
- Limiting some of the criteria that do not seem to pertain to this course
    - Of the six dimensions of the rubric there is one or more that may not be measurable in the GE 1000 course because of the criteria elements of the dimension. For example, Analysis of Knowledge at the benchmark level asks students to identify knowledge from his or her own academic study, field, or discipline. The majority of first-year students are not engaged with major/field courses at this level.
- Breaking down the criteria of the elements of the rubric
    - Provide further descriptors of each criterion within each dimension.
- In collaboration with the Center for Leadership and Service debrief before and after community activities
    - Further educate students about the purpose of the activity and discuss the learning objectives
- Working with CLS to suggest and coordinate additional activities
    - Research activities/projects that may better address the student learning outcome

CIVIC ENGAGEMENT VALUE RUBRIC

for more information, please contact value@aacu.org

Association of American Colleges and Universities

Definition

Civic engagement is "working to make a difference in the civic life of our communities and developing the combination of knowledge, skills, values, and motivation to make that difference. It means promoting the quality of life in a community, through both political and non-political processes." (Excerpted from *Civic Responsibility and Higher Education*, edited by Thomas Ehrlich, published by Oryx Press, 2000, Preface, page vi.) In addition, civic engagement encompasses actions wherein individuals participate in activities of personal and public concern that are both individually life enriching and socially beneficial to the community.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
Diversity of Communities and Cultures	Demonstrates evidence of adjustment in own attitudes and beliefs because of working within and learning from diversity of communities and cultures. Promotes others' engagement with diversity.	Reflects on how own attitudes and beliefs are different from those of other cultures and communities. Exhibits curiosity about what can be learned from diversity of communities and cultures.	Has awareness that own attitudes and beliefs are different from those of other cultures and communities. Exhibits little curiosity about what can be learned from diversity of communities and cultures.	Expresses attitudes and beliefs as an individual, from a one-sided view. Is indifferent or resistant to what can be learned from diversity of communities and cultures.
Analysis of Knowledge	Connects and extends knowledge (facts, theories, etc.) from one's own academic study/ field/ discipline to civic engagement and to one's own participation in civic life, politics, and government.	Analyzes knowledge (facts, theories, etc.) from one's own academic study/ field/ discipline making relevant connections to civic engagement and to one's own participation in civic life, politics, and government.	Begins to connect knowledge (facts, theories, etc.) from one's own academic study/ field/ discipline to civic engagement and to tone's own participation in civic life, politics, and government.	Begins to identify knowledge (facts, theories, etc.) from one's own academic study/ field/ discipline that is relevant to civic engagement and to one's own participation in civic life, politics, and government.
Civic Identity and Commitment	Provides evidence of experience in civic-engagement activities and describes what she/ he has learned about her or himself as it relates to a reinforced and clarified sense of civic identity and continued commitment to public action.	Provides evidence of experience in civic-engagement activities and describes what she/ he has learned about her or himself as it relates to a growing sense of civic identity and commitment.	Evidence suggests involvement in civic-engagement activities is generated from expectations or course requirements rather than from a sense of civic identity.	Provides little evidence of her/ his experience in civic-engagement activities and does not connect experiences to civic identity.
Civic Communication	Tailors communication strategies to effectively express, listen, and adapt to others to establish relationships to further civic action	Effectively communicates in civic context, showing ability to do all of the following: express, listen, and adapt ideas and messages based on others' perspectives.	Communicates in civic context, showing ability to do more than one of the following: express, listen, and adapt ideas and messages based on others' perspectives.	Communicates in civic context, showing ability to do one of the following: express, listen, and adapt ideas and messages based on others' perspectives.
Civic Action and Reflection	Demonstrates independent experience and *shows initiative in team leadership* of complex or multiple civic engagement activities, accompanied by reflective insights or analysis about the aims and accomplishments of one's actions.	Demonstrates independent experience and *team leadership of* civic action, with reflective insights or analysis about the aims and accomplishments of one's actions.	Has clearly *participated* in civically focused actions and begins to reflect or describe how these actions may benefit individual(s) or communities.	Has *experimented* with some civic activities but shows little internalized understanding of their aims or effects and little commitment to future action.
Civic Contexts/Structures	Demonstrates ability and commitment to *collaboratively work across and within* community contexts and structures *to achieve a civic aim*.	Demonstrates ability and commitment to work actively *within* community contexts and structures *to achieve a civic aim*.	Demonstrates experience identifying intentional ways to *participate in* civic contexts and structures.	Experiments with civic contexts and structures, *tries out a few to see what fits*.

SLO: GEV4: Respect for Diverse Cultures and Perspectives - Introductory

ID 1225 - Critical Issues and Values of Contemporary Health

Semester: FALL 2013

REPORT DATE: 1/9/2014

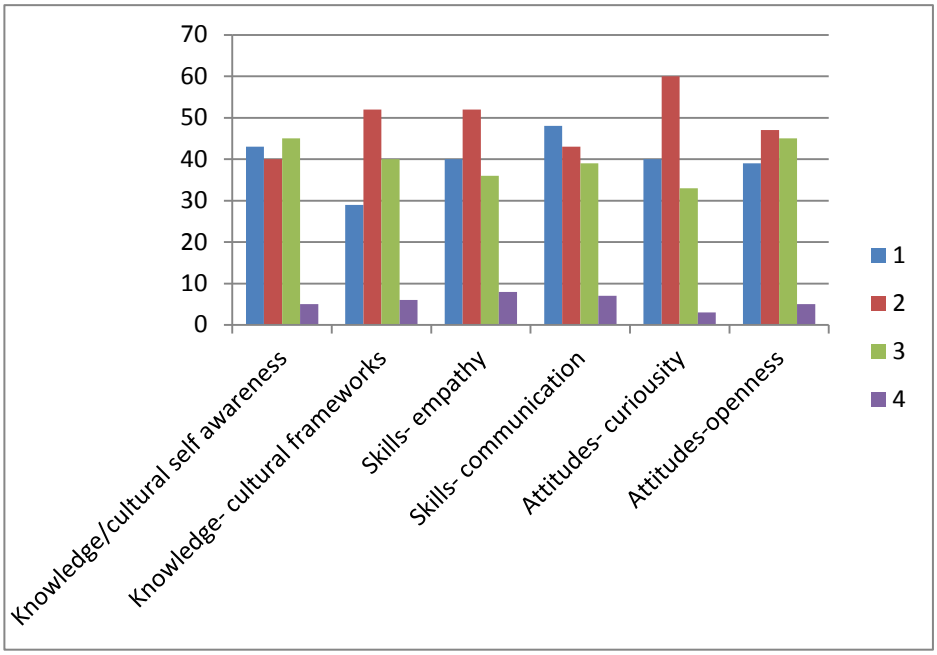
Diversity is assessed on a student writing prompt in ID 1225 Critical Values & Issues of Contemporary Health, using the ACC&U Intercultural Knowledge and Competence rubric criteria.

Number of students: 137
Number of sections: 6

Mean scores overall:

Category	Score
Knowledge/ cultural self awareness	2.0
Knowledge- cultural frameworks	2.0
Skills- empathy	2.1
Skills- communication	2.0
Attitudes- curiosity	2.0
Attitudes- openness	2.1

Distribution of Scores



Distribution of Scores:

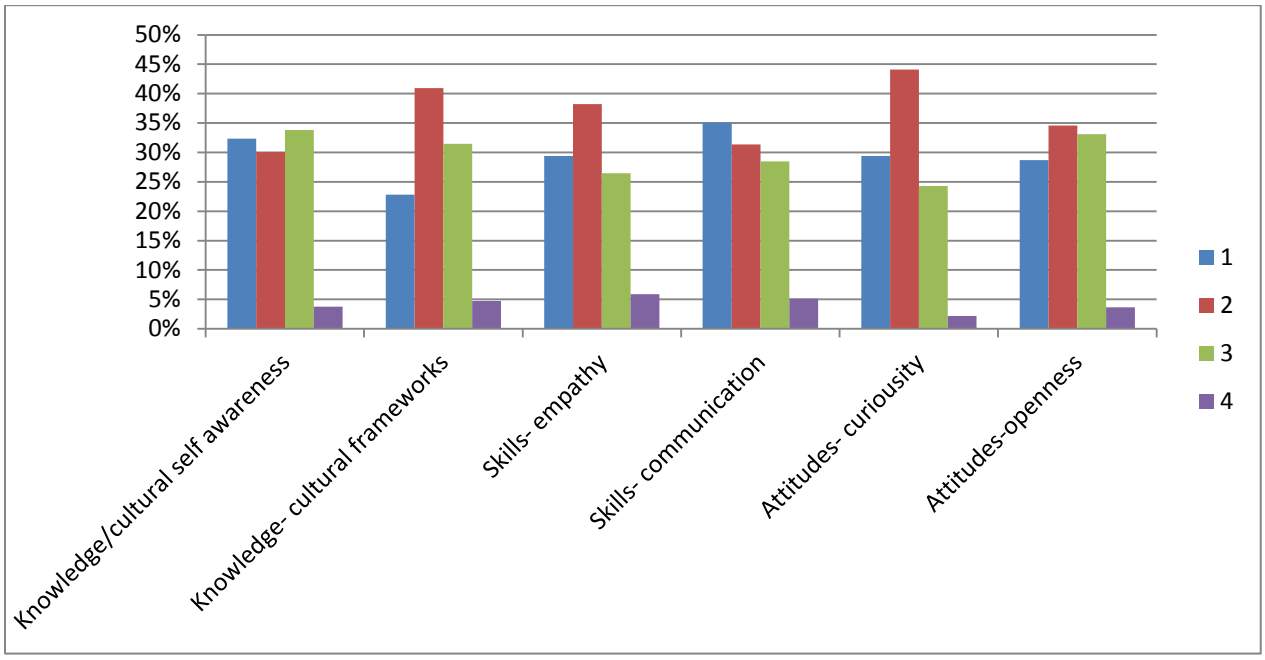
Frequency by score

	Knowledge/ cultural self-awareness	Knowledge-cultural frameworks	Skills-empathy	Skills-communication	Attitudes-curiosity	Attitudes-openness
1	43	29	40	48	40	39
2	40	52	52	43	60	47
3	45	40	36	39	33	45
4	5	6	8	7	3	5
total	133	127	136	137	136	136

Percentage by score

	Knowledge/ cultural self-awareness	Knowledge- cultural frameworks	Skills- empathy	Skills- communication	Attitudes- curiosity	Attitudes- openness
1	32%	23%	29%	35%	29%	29%
2	30%	41%	38%	31%	44%	35%
3	34%	31%	26%	28%	24%	33%
4	4%	5%	6%	5%	2%	4%

Percentage Distribution



Analysis

137 students from six ID1225 sections were assessed using the ACC&U Intercultural Knowledge and Competence rubric. Based on their performance on a writing prompt, students were labeled as level 1 (basic level), level 2-3 (intermediate - milestone) and level 4 (advanced - capstone level, exceed expectation). Students are considered to be meeting expectations if they reach levels 2-3. Among six diversity dimensions being measured, students performed the lowest on the Attitudes-Curiosity, for which 73% (29% level 1 and 44% level 2) failed to meet the expectation that they should be able to "ask deeper questions about other cultures and seeks out answers to these questions." The second lowest performance falls on Skills of Communication, where the student "recognizes and participates in cultural differences in verbal and nonverbal communication and begins to negotiate a shared understanding based on those differences." 66% of the 137 students only reached level 1 or level 2 on this dimensions.

Students performed the best on Knowledge/Cultural Self-awareness and Attitudes-Openness. 38% and 37% of the students met expectations (level 3) or exceed expectations (level 4). Compared with other diversity dimensions, Kean students are better at "recognizing new perspectives about their own culture rules and biases," and "initiating and developing interactions with culturally different others, begins to suspend judgment in valuing her/his interactions with culturally different others."

Significant correlations (P<.001) were found among all six dimensions. Students ranked on a higher level in one dimension are also high on the other five dimensions, indicating close interrelationships between the 6 diversity categories. In order to improve students' diversity skills (as defined as intercultural knowledge and competence), perspectives and understanding, comprehensive practices addressing all 6 dimensions need to be introduced to class and co-curriculum activities with an emphasis on encouraging students to ask questions and learn about different cultures and have frequent and deep culture differences communications with those with different cultural background. This is especially important to us given Kean's commitment to globalization and our new additional instructional site in China. We are committed to our students having a strong global outlook after their time at Kean. But we also need to extend our assessment of 'Diversity' to Diversity in all its forms. We also note, however, that our expectations in this SLO are higher than in other SLOs. Whereas we may expect first year students to achieve at the 1-2 level elsewhere, here we were seeking 2-3 – a more intermediate level. We do not wish to 'reduce standards' but we should consider ensuring that this SLO is followed-through longitudinally so that we have more of a developmental approach – beginning with a benchmark standard and following through to the expectation of capstone levels.

Discussion/Action/Closing the Loop: (need improvement)

Based on a review of the data the students' scores in this pilot indicated that in general student awareness in all areas reflect basic to moderate competence levels related to intercultural competence and awareness. As the data also indicated, the students scored best in Attitudes –Openness and Knowledge/ Culture Self Awareness and the lowest in the areas of Attitudes –Curiosity and Skills of communication. Starting in Fall 2014 we want to expand the assessment to all ID 1225 classes. Based on the pilot results, we will initiate a number of activities to close the gap among the areas assessed and work towards raising the overall level of intercultural knowledge and competency of students. The Health Education faculty plan to take several actions for implementation for Fall 2014.

1. The course outline for ID 1225 will be revised during Spring 2014 semester to bring the outline into alignment with the current global health perspective. Currently cultural issues are generally addressed in one or two chapters/sessions rather than using an integrated approach across all topic areas. This should strengthen overall intercultural awareness but support increases in attitudes-curiosity and skills of communication.
2. Course syllabi will be reviewed to ensure that topics related to cultural awareness with a focus on Intercultural Knowledge and Competence are being covered consistently across all sections and that appropriate assignments are provided to re-enforce competence.
3. Textbooks will be assessed to ensure comprehensiveness and uniformity of the information provided. A preliminary review of the textbooks used for the class reveal that the books have only

limited focus on diversity and cross cultural health issues. One textbook will be identified for sections of the class.

4. The creation of a common assignment for all sections that focuses on strengthening students' intercultural knowledge and competence with an emphasis on developing to interactions with other cultures will be initiated for implementation for the Fall 2014 semester.
5. Additional supports will be provided for faculty as we expand the assessment process to all ID 1225 sections that will include additional faculty training use of the rubric for assessment, and to discuss common course requirements. This initiative will support greater accuracy and consistency across faculty as we expand the assessment process.

In addition, we will expand our assessment of Diversity longitudinally and in terms of our definition. ID1225 will continue to be an excellent means of assessing Diversity as intercultural competence, but we aim to build a new rubric for Diversity using a broadened definition of what Diversity can mean in a contemporary university. After the GE evaluation, we will aim to have this new approach to Diversity and new rubric operational by Fall 2014.

INTERCULTURAL KNOWLEDGE AND COMPETENCE VALUE RUBRIC

for more information, please contact value@aacu.org

Association of American Colleges and Universities

Definition

Intercultural Knowledge and Competence is "a set of cognitive, affective, and behavioral skills and characteristics that support effective and appropriate interaction in a variety of cultural contexts." (Bennett, J. M. 2008. Transformative training: Designing programs for culture learning. In *Contemporary leadership and intercultural competence: Understanding and utilizing cultural diversity to build successful organizations*, ed. M. A. Moodian, 95-110. Thousand Oaks, CA: Sage.)

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	**Milestones** 3	2	**Benchmark** 1
Knowledge *Cultural self- awareness*	Articulates insights into own cultural rules and biases (e.g. seeking complexity; aware of how her/his experiences have shaped these rules, and how to recognize and respond to cultural biases, resulting in a shift in self-description.)	Recognizes new perspectives about own cultural rules and biases (e.g. not looking for sameness; comfortable with the complexities that new perspectives offer.)	Identifies own cultural rules and biases (e.g. with a strong preference for those rules shared with own cultural group and seeks the same in others.)	Shows minimal awareness of own cultural rules and biases (even those shared with own cultural group(s)) (e.g. uncomfortable with identifying possible cultural differences with others.)
Knowledge *Knowledge of cultural worldview frameworks*	Demonstrates sophisticated understanding of the complexity of elements important to members of another culture in relation to its history, values, politics, communication styles, economy, or beliefs and practices.	Demonstrates adequate understanding of the complexity of elements important to members of another culture in relation to its history, values, politics, communication styles, economy, or beliefs and practices.	Demonstrates partial understanding of the complexity of elements important to members of another culture in relation to its history, values, politics, communication styles, economy, or beliefs and practices.	Demonstrates surface understanding of the complexity of elements important to members of another culture in relation to its history, values, politics, communication styles, economy, or beliefs and practices.
Skills *Empathy*	Interprets intercultural experience from the perspectives of own and more than one worldview and demonstrates ability to act in a supportive manner that recognizes the feelings of another cultural group.	Recognizes intellectual and emotional dimensions of more than one worldview and sometimes uses more than one worldview in interactions.	Identifies components of other cultural perspectives but responds in all situations with own worldview.	Views the experience of others but does so through own cultural worldview.
Skills *Verbal and nonverbal communication*	Articulates a complex understanding of cultural differences in verbal and nonverbal communication (e.g., demonstrates understanding of the degree to which people use physical contact while communicating in different cultures or use direct/indirect and explicit/implicit meanings) and is able to skillfully negotiate a shared understanding based on those differences.	Recognizes and participates in cultural differences in verbal and nonverbal communication and begins to negotiate a shared understanding based on those differences.	Identifies some cultural differences in verbal and nonverbal communication and is aware that misunderstandings can occur based on those differences but is still unable to negotiate a shared understanding.	Has a minimal level of understanding of cultural differences in verbal and nonverbal communication; is unable to negotiate a shared understanding.
Attitudes *Curiosity*	Asks complex questions about other cultures, seeks out and articulates answers to these questions that reflect multiple cultural perspectives.	Asks deeper questions about other cultures and seeks out answers to these questions.	Asks simple or surface questions about other cultures.	States minimal interest in learning more about other cultures.
Attitudes *Openness*	Initiates and develops interactions with culturally different others. Suspends judgment in valuing her/his interactions with culturally different others.	Begins to initiate and develop interactions with culturally different others. Begins to suspend judgment in valuing her/his interactions with culturally different others.	Expresses openness to most, if not all, interactions with culturally different others. Has difficulty suspending any judgment in her/his interactions with culturally different others, and is aware of own judgment and expresses a willingness to change.	Receptive to interacting with culturally different others. Has difficulty suspending any judgment in her/his interactions with culturally different others, but is unaware of own judgment.

V5: Life Long Learning

Teacher Education Capstone Course

Semester: Spring 2013 (**fall data in process)

REPORT DATE: 1/15/2014

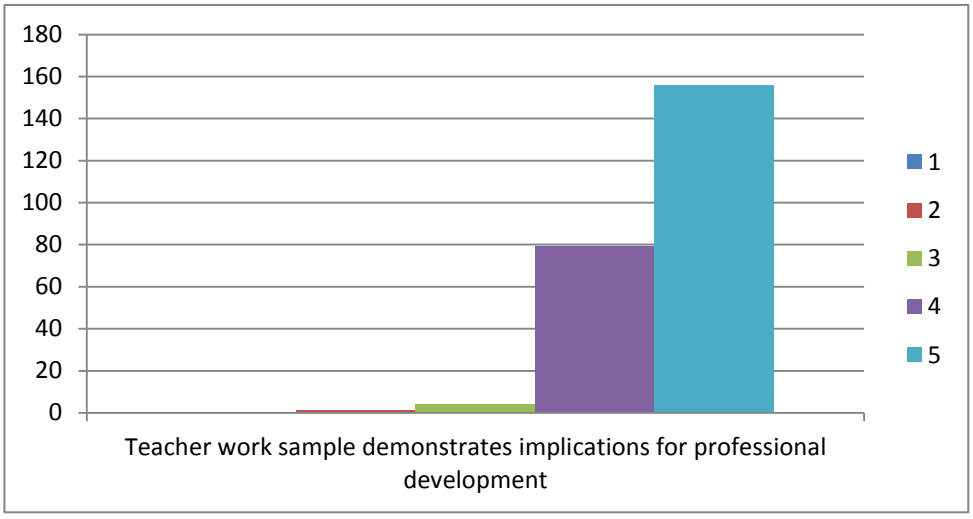
Students in Teacher Preparation programs at the bachelor's level are expected, as part of their teacher work sample in their capstone course, to demonstrate an understanding of professional development after completing their coursework and field experience. This reflection assignment is scored on a 1-5 basis as follows:

1 = Unacceptable (Not Competent) Teacher candidate demonstrates little or no competence.
2 = Beginning (Beginning Competence) Teacher candidate demonstrates competence with significant assistance and prompting
3 = Developing (Developing Competence) Teacher candidate demonstrates developing competence with some assistance and prompting.
4 = Capable (Competent) Teacher candidate consistently demonstrates competence without any assistance or prompting.
5 = Accomplished (Highly Competent) Teacher candidate consistently demonstrates a high degree of competence functioning independently

Number of students:
240
Number of sections:
17

Frequency by score		
	Teacher work sample demonstrates implications for professional development	**%**
1	0	0%
2	1	0%
3	4	2%
4	79	33%
5	156	65%

Distribution of Scores:



Discussion/Action/Closing the Loop:

Teacher Work Sample data is reviewed and noted by Capstone instructors which is presented to department faculty and discussed twice a year at University-wide Assessment meetings organized by the program unit. In addition to the information gathered from the Spring 13 TWS data, cumulative data from all assessment/criteria points in the SPA and Unit are analyzed and brought to the COE retreats held several times over each semester. Managing classroom behavior has been consistently mentioned and is being addressed in the new conceptual framework of the COE.

A dedicated course will be developed for all general education majors (SPED majors currently take a dedicated course). Until this course is approved by the state of New Jersey through university protocols, interim steps to provide this information have resulted in semester seminars, embedded course modules and special forums.

Other professional development information gathered has been used by the SPED Department for the purpose of recruiting faculty and writing an additional graduate option in developmental disabilities.

GE SLO V5 Life-Long Learning Assessment

NSSE 2013

Spring 2013 NSSE 2013 items were selected to assess Kean Students' Life-long Learning skills based on AAC&U rubric identified dimensions

Wenjun Chi
1/21/2014

GE SLO V5 Life-long Learning

NSSE 2013

Semester: Spring 2013

REPORT DATE: 1/21/2014

Introduction

The purpose of the National Survey of Student Engagement (NSSE) is to collect annually the nature and quality of undergraduate experience of freshmen (FY) and seniors (SR) from participating institutions in the United States and Canada. In 2013, 563 institutions participated in the NSSE administration. Kean University has participated in the administration of NSSE in 2001, 2003, 2010 and 2013.

In 2013, Kean University provided NSSE with contact information (name and Kean University e-mail address) of first-year and senior-level students prior to the spring semester in which the survey was administered. The NSSE project team then emailed Kean students via the emails provided by Kean asking for their participation to complete the online survey. 275 freshmen and 335 seniors completed the survey. The 2013 overall response rate of Kean students is 19%. Kean FY response rate is 19% while the comparison groups' response rate is 16%-18%. SR response rate at Kean is 18% while Kean's competitors are 20%-24%.

The sample group is generally representative of Kean's 2013 FY and SR populations except that females are slightly overrepresented. The peer institutions used in the comparisons are listed in appendix A.

	First-year				*Senior*			
	Kean	Selected Peers	Competitive Master's	Kean but Doctoral	Kean	Selected Peers	Competitive Master's	Kean but Doctoral
Response rate	19%	16%	17%	18%	18%	20%	22%	24%
Sampling error[b]	+/- 5.3%	+/- 2.1%	+/- 0.9%	+/- 1.2%	+/- 4.8%	+/- 1.4%	+/- 0.7%	+/- 0.9%

a. Comparison group response rate and sampling error are computed at the student level (i.e., they are not institution averages).
b. Also called "margin of error," sampling error is an estimate of the amount the true score on a given item could differ from the estimate based on a sample. For example, if the sampling error is +/- 5.0% and 40% of your students reply "Very often" to a particular item, then the true population value is most likely between 35% and 45%.

(NSSE13 Administration Summary)

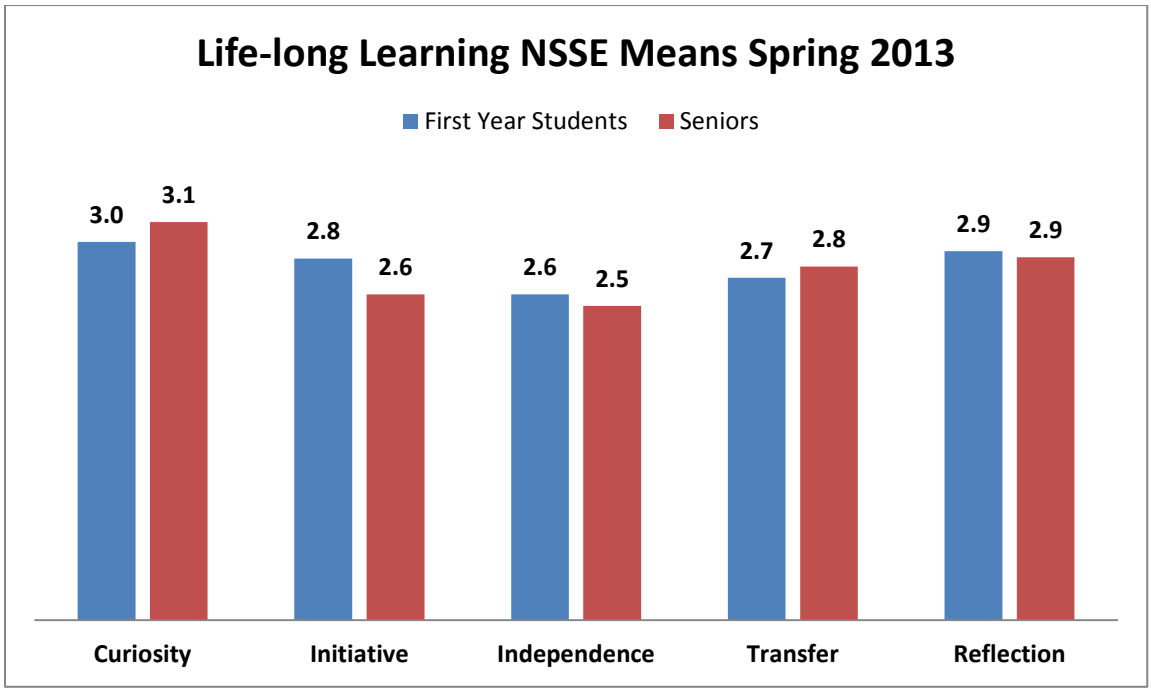
Measure Life-long Learning Using NSSE Data and AAC&U Life-long Learning Rubric (attached in Appendix B)

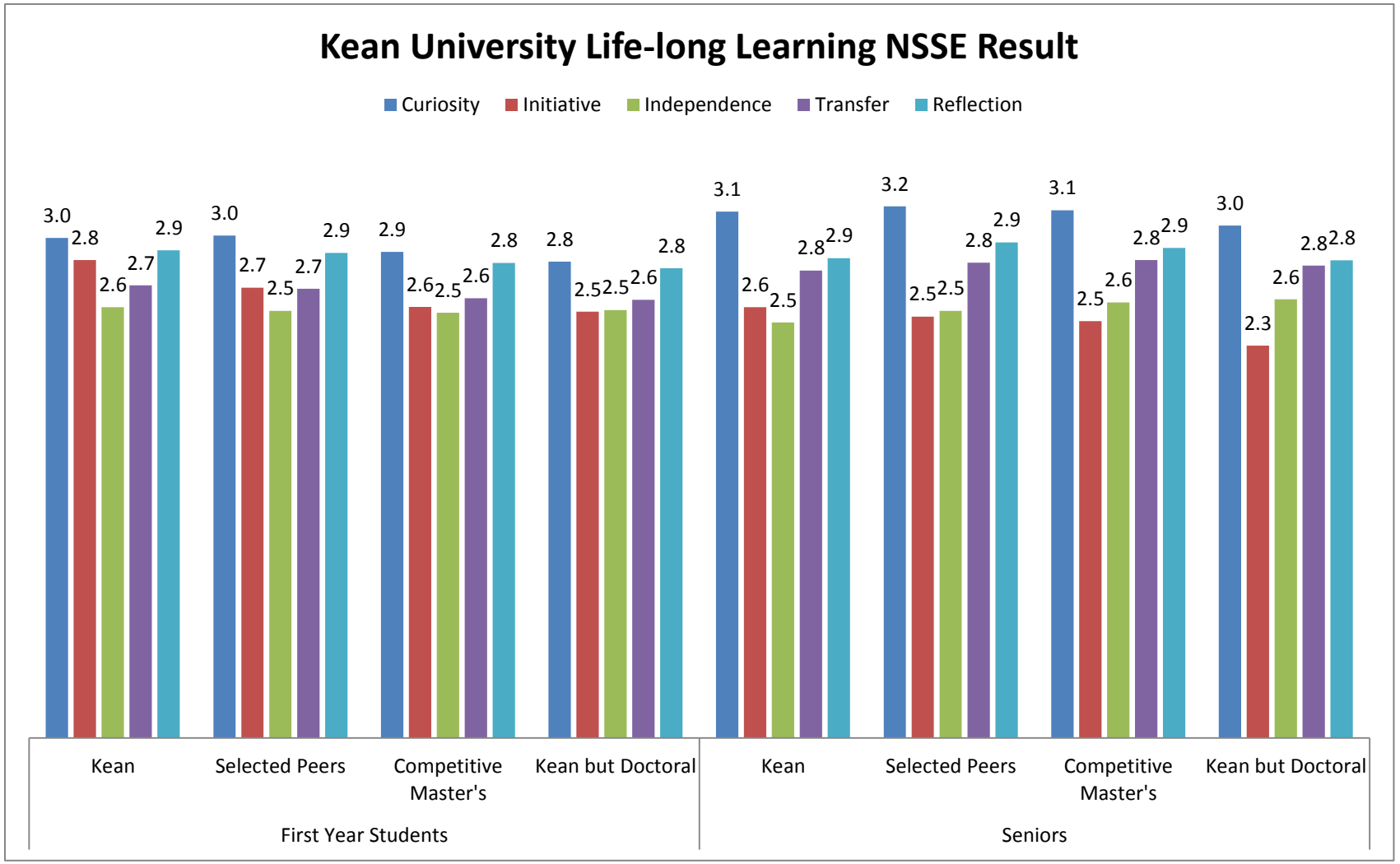
Twenty-two NSSE items were selected to measure the five elements as identified in AAC&U rubric: Curiosity, Initiative, Independence, Transfer and Reflection. This is an indirect measurement because NSSE rely on students' self-reported information.

Items selected for Life-long Learning assessment are listed in Appendix C

NSSE Means by Life-long Learning Elements

	First Year Students				Seniors			
	Kean	Selected Peers	Competitive Master's	Kean but Doctoral	Kean	Selected Peers	Competitive Master's	Kean but Doctoral
Curiosity	3.0	3.0	2.9	2.8	3.1	3.2	3.1	3.0
Initiative	2.8	2.7	2.6	2.5	2.6	2.5	2.5	2.3
Independence	2.6	2.5	2.5	2.5	2.5	2.5	2.6	2.6
Transfer	2.7	2.7	2.6	2.6	2.8	2.8	2.8	2.8
Reflection	2.9	2.9	2.8	2.8	2.9	2.9	2.9	2.8




Kean University Life-long Learning NSSE Result
Curiosity
Initiative
Independence
Transfer
Reflection
3.0 2.8 2.6 2.7 2.9
3.0 2.7 2.5 2.7 2.9
2.9 2.6 2.5 2.6 2.8
2.8 2.5 2.5 2.6 2.8
3.1 2.6 2.5 2.8 2.9
3.2 2.5 2.5 2.8 2.9
3.1 2.5 2.6 2.8 2.9
3.0 2.3 2.6 2.8 2.8
Kean
Selected Peers
Competitive Master's
Kean but Doctoral
Kean
Selected Peers
Competitive Master's
Kean but Doctoral
First Year Students
Seniors

Analysis:

Both Kean freshmen and seniors reported highest means on Curiosity (3.0 for FY and 3.1 for SR), followed by Reflection, Initiative, Transfer and Independence (the lowest, 2.6 for FY and 2.5 for SR).

For Curiosity, Kean students significantly more frequently "asked questions or contributed to course discussions in other ways" than "Competitive Master" group (P<.05 for FY) and "Kean but Doctoral" Group (P<.001 for both FY and SR).

For Reflection, Kean freshmen also significantly more frequently "examined the strengths and weaknesses of their own views on a topic or issue" than "Kean but Doctoral" competitors (P<.05). Additionally, Kean freshmen also reported "learned something that changed the way they understand an issue or concept" than peers in "Competitive Masters" group and "Kean but Doctoral" group. (P<.05) Seniors, on the other hand, are lower than their competitors, especially the "Selected Peers" group (P<.05), on how often they "examined the strengths and weaknesses of their own views on a topic or issue", and "learned something that changed the way they understand an issue or concept."

For Independence, Kean seniors are not as frequent as their peers in comparison groups in "reaching conclusions based on their own analysis of numerical information (numbers, graphs, statistics, etc.)." Seniors are significantly lower (P<.05) when compared with "Competitive Masters" group and "Kean but Doctoral" group. Kean freshmen, on the other hand, are slightly higher than their peers in comparison groups, but the difference is not statistically significant.

For Initiative, Kean students, both freshmen and seniors, reported more frequently "prepared two or more drafts of a paper or assignment before turning it" than all three comparison groups. The difference is statistically significant between Kean freshmen and the other three comparison groups (P<.01--P<.001), and between Kean seniors and "Kean but Doctoral" group (P<.001).

For Transfer, first-year students at Kean reported significantly more frequently "connected their learning to societal problems or issues" than students from the "Competitive Masters" group (P<.01) and "Kean but Doctoral" group (P<.001). However, seniors at Kean are less likely to report than their counterparts in peer institutions that they "applying facts, theories, or methods to practical problems or new situations." The difference between Kean seniors and "Selected Peers" group is statistically significant. (P<.05)

Discussion/Action/Closing the Loop:

In general, Kean first-year students are on par with their peers in comparison groups, if not higher, on all five skills measured in NSSE: Curiosity, Reflection, Initiative, Transfer and Independence. Meanwhile seniors at Kean show both strengths and weaknesses. Compared with peer institutions, Kean students are significantly more often engaged in activities including "Asked questions or contributed to course discussions in other ways" (Curiosity) or "Prepared two or more drafts of a paper or assignment before turning it in" (Initiative). However, Kean seniors spend significantly less amount of time "reach[ing] conclusions based on their own analysis of numerical information"

(Independence). Additionally, seniors at Kean are less likely than their peers to report that they "Examined the strengths and weaknesses of their own views on a topic or issue" (Reflection), "Learned something that changed the way they understand an issue or concept" (Reflection), and "applying facts, theories, or methods to practical problems or new situations" (Transfer).

The issue at senior level might be due to various reasons. One possible explanation is that more than half (60%) of the seniors are transfer students who were not required to take GE courses that are mandatory for Kean freshmen and sophomores. Teachers need to provide instructions to senior students emphasizing on how to work independently by utilizing the resources they have. Seniors should also be encouraged to examine their own ideas and ways of understanding issues or topics from multiple angles. Further, senior-level students should be given more practice that requires them to apply what they learned in class (facts, theories, or methods) in new situations or problems in real-world.

Recommendations:

Issue: Kean seniors spend significantly less amount of time "reach[ing] conclusions based on their own analysis of numerical information"

- Partner with MATH 1000-level and GE 202x faculty to improve students' ability to reach conclusions based on their own analysis of numerical information (numbers, graphs, statistics, etc.).
- Please see the "GES3: Solve problems using quantitative reasoning (KU1, 4)" for specific actions that foster student acquisition of numerical analysis.

Issue: Students' ability to reflect on and adapt their own views.

- Collaborate with faculty teaching GE values-designated courses (i.e. GE 1000 and ID 1225) to increase opportunities for students to engage in self-reflection in where course content is appropriate for student self-reflection activities (e.g. GE 1000, ID 1225, etc.)

References

NSSE13 Administration Summary Report

NSSE13 Frequencies and Statistical Comparisons (Kean)

Appendix A: Comparison Groups

Selected Peers: Public; Master's larger programs; enrolled 5,000-20,000; NJ, NY, CT, MA, PA and RI; Six are in suburb large, one in city medium and one in city large. (N=8)

Competitive Master's: Public; Master's larger programs; enrolled 5,000-20,000; competitive and nationwide. (N=33)

Kean but Doctoral: Public; Master's larger programs; enrolled 10,001-20,000; Doctoral and research universities; competitive and nationwide. (N=12)

Appendix B: AAC&U Life-Long Learning Rubric

Note: Selected NSSE items were only analyzed based on the comprehensive definition generated from level 3-4 of the five elements from the AAC&U Life-long learning Rubric

FOUNDATIONS AND SKILLS FOR LIFELONG LEARNING VALUE RUBRIC

for more information, please contact value@aacu.org

Definition

Lifelong learning is "all purposeful learning activity, undertaken on an ongoing basis with the aim of improving knowledge, skills and competence". An endeavor of higher education is to prepare students to be this type of learner by developing tspecific dispositions and skills (described in this rubric) while in school. (From The European Commission. 2000. Commission staff working paper: A memorandum on lifelong learning. Retrieved September 3, 2003, from wwwsees-educoop.net/education_in/pdf/lifelong-oth-enl-t02.pdf.)

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone	Milestones		Benchmark
	4	3	2	1
Curiosity	Explores a topic in depth, yielding a rich awareness and/or little-known information indicating intense interest in the subject.	Explores a topic in depth, yielding insight and/or information indicating interest in the subject.	Explores a topic with some evidence of depth, providing occasional insight and/or information indicating mild interest in the subject.	Explores a topic at a surface level, providing little insight and/or information beyond the very basic facts indicating low interest in the subject.
Initiative	Completes required work, generates and pursues opportunities to expand knowledge, skills, and abilities.	Completes required work, identifies and pursues opportunities to expand knowledge, skills, and abilities.	Completes required work and identifies opportunities to expand knowledge, skills, and abilities.	Completes required work.
Independence	Educational interests and pursuits exist and flourish outside classroom requirements. Knowledge and/or experiences are pursued independently.	Beyond classroom requirements, pursues substantial, additional knowledge and/or actively pursues independent educational experiences.	Beyond classroom requirements, pursues additional knowledge and/or shows interest in pursuing independent educational experiences.	Begins to look beyond classroom requirements, showing interest in pursuing knowledge independently.
Transfer	Makes explicit references to previous learning and applies in an innovative (new and creative) way that knowledge and those skills to demonstrate comprehension and performance in novel situations.	Makes references to previous learning and shows evidence of applying that knowledge and those skills to demonstrate comprehension and performance in novel situations.	Makes references to previous learning and attempts to apply that knowledge and those skills to demonstrate comprehension and performance in novel situations.	Makes vague references to previous learning but does not apply knowledge and skills to demonstrate comprehension and performance in novel situations.
Reflection	Reviews prior learning (past experiences inside and outside of the classroom) in depth to reveal significantly changed perspectives about educational and life experiences, which provide foundation for expanded knowledge, growth, and maturity over time.	Reviews prior learning (past experiences inside and outside of the classroom) in depth, revealing fully clarified meanings or indicating broader perspectives about educational or life events.	Reviews prior learning (past experiences inside and outside of the classroom) with some depth, revealing slightly clarified meanings or indicating a somewhat broader perspectives about educational or life events.	Reviews prior learning (past experiences inside and outside of the classroom) at a surface level, without revealing clarified meaning or indicating a broader perspective about educational or life events.

Appendix C NSSE Items selected for Life-long Learning Assessment

NSSE national survey of student engagement

NSSE 2013 Frequencies and Statistical Comparisons

Kean University

First-Year Students

	Item wording or description	Variable name [c]	Values [d]	Response options	Frequency Distributions [a] Kean Count	Kean %	Selected Peers Count	Selected Peers %	Competitive Master's Count	Competitive Master's %	Kean but Doctoral Count	Kean but Doctoral %	Statistical Comparisons [b] Kean Mean	Selected Peers Mean	Selected Peers Effect size [e]	Competitive Master's Mean	Competitive Master's Effect size [e]	Kean but Doctoral Mean	Kean but Doctoral Effect size [e]
1. During the current school year, about how often have you done the following?																			
Curiosity	a. Asked questions or contributed to course discussions in other ways	askquest	1	Never	10	3	49	3	337	3	260	5							
			2	Sometimes	80	29	540	30	3,680	34	2,248	39							
			3	Often	97	36	654	36	3,879	37	2,010	34	3.0	3.0	.02	2.8 *	.15	2.7 ***	.26
			4	Very often	86	32	547	31	2,658	26	1,296	22							
				Total	273	100	1,790	100	10,554	100	5,814	100							
Initiative	b. Prepared two or more drafts of a paper or assignment before turning it in	drafts	1	Never	20	8	231	13	1,687	16	953	17							
			2	Sometimes	80	30	545	31	3,559	33	1,945	34							
			3	Often	90	33	567	31	3,078	29	1,682	29	2.8	2.7 **	.17	2.6 ***	.28	2.5 ***	.31
			4	Very often	81	29	439	25	2,174	21	1,201	21							
				Total	271	100	1,782	100	10,498	100	5,781	100							
2. During the current school year, about how often have you done the following?																			
Transfer	a. Combined ideas from different courses when completing assignments	RIintegrate	1	Never	19	8	109	7	695	7	372	7							
			2	Sometimes	85	33	580	35	3,826	38	2,066	38							
			3	Often	103	41	641	38	3,621	36	2,087	38	2.7	2.7	-.02	2.7	.05	2.7	.05
			4	Very often	48	18	331	20	1,828	19	949	17							
				Total	255	100	1,661	100	9,970	100	5,474	100							
Transfer	b. Connected your learning to societal problems or issues	RIsocietal	1	Never	20	8	126	8	893	9	533	10							
			2	Sometimes	79	32	619	37	3,950	39	2,161	40							
			3	Often	94	38	582	35	3,423	35	1,893	34	2.8	2.7	.10	2.6 **	.20	2.5 ***	.24
			4	Very often	57	22	312	20	1,576	16	823	15							
				Total	250	100	1,639	100	9,842	100	5,410	100							
Reflection	d. Examined the strengths and weaknesses of your own views on a topic or issue	RIownview	1	Never	8	3	77	5	534	5	301	5							
			2	Sometimes	78	31	509	32	3,364	33	1,846	34							
			3	Often	112	45	705	42	4,130	42	2,231	42	2.8	2.8	.05	2.8	.10	2.7 *	.13
			4	Very often	54	21	345	21	1,814	20	1,005	19							
				Total	252	100	1,636	100	9,842	100	5,383	100							
Reflection	f. Learned something that changed the way you understand an issue or concept	RInewview	1	Never	8	4	48	3	318	3	162	3							
			2	Sometimes	64	26	503	31	3,130	32	1,808	34							
			3	Often	110	45	696	42	4,193	42	2,229	42	2.9	2.9	.09	2.8 *	.13	2.8 *	.15
			4	Very often	65	26	386	24	2,121	22	1,171	22							
				Total	247	100	1,633	100	9,762	100	5,370	100							
4. During the current school year, how much has your coursework emphasized the following?																			
Transfer	b. Applying facts, theories, or methods to practical problems or new situations	HOapply	1	Very little	11	4	54	4	371	4	202	4							
			2	Some	54	22	348	22	2,380	24	1,294	25							
			3	Quite a bit	107	44	749	46	4,442	46	2,320	44	3.0	3.0	-.02	2.9	.04	2.9	.03
			4	Very much	70	29	468	29	2,503	26	1,490	27							
				Total	242	100	1,619	100	9,696	100	5,306	100							
Curiosity	c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	HOanalyze	1	Very little	10	4	56	4	405	4	231	4							
			2	Some	57	24	380	23	2,463	25	1,375	26							
			3	Quite a bit	102	43	653	40	4,198	43	2,249	42	3.0	3.0	-.05	2.9	.05	2.9	.07
			4	Very much	74	30	518	33	2,587	27	1,434	27							
				Total	243	100	1,607	100	9,653	100	5,289	100							
Reflection	e. Forming a new idea or understanding from various pieces of information	HOform	1	Very little	16	7	59	4	462	5	308	6							
			2	Some	56	23	370	23	2,631	27	1,527	29							
			3	Quite a bit	101	43	708	44	4,183	43	2,157	41	2.9	3.0	-.08	2.9	.05	2.8	.11
			4	Very much	67	28	465	29	2,363	25	1,284	24							
				Total	240	100	1,602	100	9,639	100	5,276	100							
6. During the current school year, about how often have you done the following?																			
Independence	a. Reached conclusions based on your own analysis of numerical information	QRconclude	1	Never	35	14	250	16	1,472	14	721	13							
			2	Sometimes	81	33	560	33	3,528	35	1,970	36							
			3	Often	84	35	528	33	3,184	34	1,784	34	2.6	2.5	.02	2.5	.04	2.5	.02
			4	Very often	41	17	278	18	1,510	17	842	16							
				Total	241	100	1,616	100	9,694	100	5,317	100							
Transfer	b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	QRproblem	1	Never	53	21	355	22	2,281	23	1,217	22							
			2	Sometimes	87	36	631	38	3,840	39	2,140	40							
			3	Often	73	31	430	27	2,479	26	1,396	27	2.3	2.3	.03	2.3	.06	2.3	.07
			4	Very often	28	12	197	13	1,065	12	551	11							
				Total	241	100	1,613	100	9,665	100	5,304	100							

NSSE national survey of student engagement

NSSE 2013 Frequencies and Statistical Comparisons

Kean University

Seniors

Frequency Distributions[a]

	Item wording or description	Variable name[c]	Values[d]	Response options	Kean Count	Kean %	Selected Peers Count	Selected Peers %	Competitive Master's Count	Competitive Master's %	Kean but Doctoral Count	Kean but Doctoral %	Kean Mean
	1. During the current school year, about how often have you done the following?												
Curiosity	a. Asked questions or contributed to course discussions in other ways	askquest	1	Never	7	2	79	2	277	2	255	3	
			2	Sometimes	66	19	783	21	3,322	21	2,455	26	
			3	Often	109	33	1,254	33	5,055	32	3,085	33	3.2
			4	Very often	152	46	1,697	44	7,119	45	3,547	38	
				Total	334	100	3,813	100	15,773	100	9,342	100	
Initiative	b. Prepared two or more drafts of a paper or assignment before turning it in	drafts	1	Never	48	15	746	19	3,041	19	2,207	24	
			2	Sometimes	117	35	1,277	33	5,512	35	3,284	35	
			3	Often	95	29	991	27	4,038	26	2,237	24	2.6
			4	Very often	72	21	776	21	3,111	20	1,584	17	
				Total	332	100	3,790	100	15,702	100	9,312	100	
	2. During the current school year, about how often have you done the following?												
Transfer	a. Combined ideas from different courses when completing assignments	RIintegrate	1	Never	8	2	137	4	462	3	263	3	
			2	Sometimes	86	29	942	27	3,637	24	2,324	26	
			3	Often	127	43	1,445	39	5,971	39	3,492	39	2.9
			4	Very often	80	26	1,118	30	5,037	33	2,896	32	
				Total	301	100	3,642	100	15,107	100	8,975	100	
Transfer	b. Connected your learning to societal problems or issues	RIsocietal	1	Never	23	7	183	6	908	7	623	7	
			2	Sometimes	93	32	1,102	30	4,580	30	2,924	33	
			3	Often	111	37	1,349	37	5,428	36	3,143	35	2.8
			4	Very often	70	23	980	27	4,034	27	2,200	24	
				Total	297	100	3,614	100	14,950	100	8,890	100	
Reflection	d. Examined the strengths and weaknesses of your own views on a topic or issue	RIownview	1	Never	14	4	168	5	757	5	498	6	
			2	Sometimes	111	36	1,091	30	4,536	30	2,854	32	
			3	Often	119	41	1,460	40	5,990	40	3,551	40	2.7
			4	Very often	56	19	885	25	3,667	25	1,970	22	
				Total	300	100	3,604	100	14,950	100	8,873	100	
Reflection	f. Learned something that changed the way you understand an issue or concept	RInewview	1	Never	6	2	72	2	361	3	227	3	
			2	Sometimes	100	33	1,010	28	4,357	29	2,792	32	
			3	Often	127	45	1,519	43	6,067	40	3,585	40	2.8
			4	Very often	62	21	987	27	4,090	27	2,215	25	
				Total	295	100	3,588	100	14,875	100	8,819	100	
	4. During the current school year, how much has your coursework emphasized the following?												
Transfer	b. Applying facts, theories, or methods to practical problems or new situations	HOapply	1	Very little	6	2	90	3	386	3	249	3	
			2	Some	63	22	589	17	2,628	18	1,634	19	
			3	Quite a bit	123	44	1,484	42	6,196	42	3,749	43	3.1
			4	Very much	98	32	1,389	39	5,517	37	3,135	35	
				Total	290	100	3,552	100	14,727	100	8,767	100	
Curiosity	c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	HOanalyze	1	Very little	12	4	113	3	514	4	336	4	
			2	Some	62	21	643	18	2,979	20	1,893	22	
			3	Quite a bit	122	43	1,436	41	5,963	40	3,572	41	3.0
			4	Very much	92	31	1,338	38	5,254	36	2,936	33	
				Total	288	100	3,530	100	14,710	100	8,737	100	
Reflection	e. Forming a new idea or understanding from various pieces of information	HOform	1	Very little	15	5	134	4	666	5	512	6	
			2	Some	64	22	793	22	3,504	24	2,326	27	
			3	Quite a bit	125	44	1,441	41	6,048	41	3,531	40	3.0
			4	Very much	83	29	1,164	33	4,474	30	2,369	26	
				Total	287	100	3,532	100	14,692	100	8,738	100	
	6. During the current school year, about how often have you done the following?												
Independence	a. Reached conclusions based on your own analysis of numerical information	QRconclude	1	Never	51	16	616	16	2,188	14	1,217	13	
			2	Sometimes	104	36	1,204	33	5,037	33	2,983	33	
			3	Often	89	32	1,063	30	4,630	32	2,806	32	2.5
			4	Very often	47	16	675	20	2,933	21	1,771	21	
				Total	291	100	3,558	100	14,788	100	8,777	100	
Transfer	b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	QRproblem	1	Never	64	20	814	22	3,059	20	1,820	20	
			2	Sometimes	112	38	1,317	36	5,560	37	3,339	38	
			3	Often	74	27	928	27	3,849	27	2,273	26	2.4
			4	Very often	41	15	498	15	2,310	16	1,334	16	
				Total	291	100	3,557	100	14,778	100	8,766	100	

Statistical Comparisons[b]

	Item wording or description	Variable name[c]	Values[d]	Response options	Kean Mean	Selected Peers Mean	Selected Peers Effect size[e]	Competitive Master's Mean	Competitive Master's Effect size[e]	Kean but Doctoral Mean	Kean but Doctoral Effect size[e]
Curiosity	a. Asked questions or contributed to course discussions in other ways	askquest	1–4		3.2	3.2	.05	3.2	.05	3.1 ***	.20
Initiative	b. Prepared two or more drafts of a paper or assignment before turning it in	drafts	1–4		2.6	2.5	.05	2.5	.08	2.3 ***	.22
Transfer	a. Combined ideas from different courses when completing assignments	RIintegrate	1–4		2.9	2.9	-.02	3.0	-.10	3.0	-.08
Transfer	b. Connected your learning to societal problems or issues	RIsocietal	1–4		2.8	2.9	-.10	2.8	-.08	2.8	.01
Reflection	d. Examined the strengths and weaknesses of your own views on a topic or issue	RIownview	1–4		2.7	2.8 *	-.12	2.8	-.11	2.8	-.04
Reflection	f. Learned something that changed the way you understand an issue or concept	RInewview	1–4		2.8	3.0 *	-.14	2.9	-.11	2.9	-.03
Transfer	b. Applying facts, theories, or methods to practical problems or new situations	HOapply	1–4		3.1	3.2 *	-.12	3.1	-.08	3.1	-.05
Curiosity	c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	HOanalyze	1–4		3.0	3.1 *	-.13	3.1	-.07	3.0	-.01
Reflection	e. Forming a new idea or understanding from various pieces of information	HOform	1–4		3.0	3.0	-.08	3.0	.00	2.9	.11
Independence	a. Reached conclusions based on your own analysis of numerical information	QRconclude	1–4		2.5	2.5	-.07	2.6 *	-.12	2.6 *	-.14
Transfer	b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	QRproblem	1–4		2.4	2.3	.02	2.4	-.03	2.4	-.01

(NSSE13 Frequencies and Statistical Comparisons)

Appendix 12.03

General Education Student Learning Outcomes

Appendix 12.3: General Education Student Learning Outcomes

GE SLOs (Aligned with Kean University SLOs)

SLOs—Knowledge—Students will demonstrate proficiency in knowledge and content by:

GEK1: Applying the scientific method to understand natural concepts and processes (KU1, 2, 4).
GEK 2: Evaluating major theories and concepts in social sciences (KU1, 2, 4).
GEK3: Relating literature to historical context (KU 1, 2, 4).
GEK4: Evaluating major theories and concepts in the fine arts (KU1, 2, 4).

SLOs—Skills—Students will demonstrate the skills and technology necessary to:

GES1: Write to communicate and clarify learning (KU1, 4).
GES2: Communicate effectively through speech (KU1, 4).
GES3: Solve problems using quantitative reasoning (KU1, 4).
GES4: Think critically about concepts in multiple disciplines (KU1, 2, 4).
GES5: Demonstrate information literacy (KU1, 2, 4).

SLOs—Values—Students will exhibit a set of values that demonstrates:

GEV1: Personal responsibility (KU2, 3).
GEV2: Ethical and social responsibility (KU2, 3).
GEV3: Social and civic engagement (KU2, 3).
GEV4: Respect for diverse cultures and perspectives (KU1, 2, 3).
GEV5: Life-long learning (KU1, 2, 3, 4).

Appendix 12.04

GE Contribution to Institutional Student Learning Outcomes

Appendix 12.4: GE Contribution to Institutional Student Learning Outcomes

Curriculum Map of GE SLOs to Kean University SLOs

GE SLOs	KU SLO 1 – Think critically, creatively and globally.	KU SLO 2 – Adapt to changing social, economic, and technological environments.	KU SLO 3 – Serve as active and contributing members of their communities.	KU SLO 4 – Advance their knowledge in the traditional disciplines and enhance their skills in professional areas.
[KNOWLEDGE (K)] Students will demonstrate proficiency in knowledge and content by: GEK1: Applying the scientific method to understand natural concepts and processes (KU1, 2, 4).	X	X		X
GEK 2: Evaluating major theories and concepts in social sciences (KU1, 2, 4).	X	X		X
GEK3: Relating literature to historical context (KU 1, 2, 4).	X	X		X
GEK4: Evaluating major theories and concepts in the fine arts (KU1, 2, 4).	X	X		X
[SKILLS (S)] Students will demonstrate the skills and technology necessary to: GES1: Write to communicate and clarify learning (KU1, 4).	X			X
GES2: Communicate effectively through speech (KU1, 4).	X			X
GES3: Solve problems using quantitative reasoning (KU1, 4).	X			X
GES4: Think critically about concepts in multiple disciplines (KU1, 2, 4).		X		X

GES5: Demonstrate information literacy (KU1, 2, 4).	X	X		X
[VALUES (V)] Students will exhibit a set of values that demonstrates: GEV1: Personal responsibility (KU2, 3).		X	X	
GEV2: Ethical and social responsibility (KU2, 3).		X	X	
GEV3: Social and civic engagement (KU2, 3).		X	X	
GEV4: Respect for diverse cultures and perspectives (KU1, 2, 3).	X	X	X	
GEV5: Life-long learning (KU1, 2, 3, 4).	X	X	X	X

Appendix 12.05

Direct Measures of GE SLOs

Appendix 12.5: Direct Measures

GE SLOs	2012-2013 Direct Measures
[Knowledge (K)] Students will demonstrate proficiency in knowledge and content by: GEK1: Applying the scientific method to understand natural concepts and processes (KU1, 2, 4).	❖ **Introductory Level:** BIOL 1000 (n=479 students, 22 sections) Assessment Exam- 14 questions blueprinted to 2 course learning outcomes on the scientific method. ❖ **Intermediate Level:** GE 202x: Research and Technology (n=394 students, 35 sections) Pre-test and post-test - 9 questions specific to scientific method with item analysis.
GEK 2: Evaluating major theories and concepts in social sciences (KU1, 2, 4).	The following assessments were all evaluated via a common, detailed 4 point rubric analyzed by performance against 5 criteria specific to evaluating major theories and concepts in social sciences. ❖ **Introductory Level:** HIST 1000 and HIST 1062 (n=240 students, 10 sections) Last written assignment of semester ❖ **Advanced Level:** HIST 4990 capstone (n=38, 3 sections) 5,000 word historiography paper
GEK3: Relating literature to historical context (KU 1, 2, 4).	The following assessments were evaluated via a common, detailed 4 point rubric analyzed by performance against 5 criteria specific to relating historic literature to historical context. ❖ **Introductory Level:** HIST 1000 and HIST 1062 (n=239 students, 10 sections) Last written assignment of semester ❖ **Advanced Level:** HIST 4990 capstone (n=38, 3 sections) 5,000 word historiography paper
GEK4: Evaluating major theories and concepts in the fine arts (KU1, 2, 4).	❖ **Introductory Level:** AH 1700: Art History-Prehistoric to the Middle Ages (n=53 students, 2 sections) Three-page museum paper where students must analyze works of art. Papers were evaluated holistically from criteria in the departmental rubric specific to evaluating theories and concepts in the fine arts. Performance was rated on a 5 point scale.

[Skills (S)] Students will demonstrate the skills and technology necessary to: GES1: Write to communicate and clarify learning (KU1, 4).	All individual assessments were evaluated via the Standard Kean University Writing rubric consisting of 6 criteria and rated on a 5 point scale. ❖ **Introductory Level:** COMM 1030: College Composition ➢ Diagnostic Writing Assignment/ pre-test (n=700 students) ➢ Portfolio assessment/ post-test (n=90*) -- evaluated independently by 2 faculty members. Inter-rater reliability procedures and results were also included in the assessment report. ❖ **Introductory Level:** COMM 1031/1032: College Composition ➢ Diagnostic Writing Assignment/ pre-test (n=237 students) ➢ Portfolio assessment/ post-test (n=30*) -- evaluated independently by 2 faculty members. Inter-rater reliability procedures and results were also included in the assessment report. (*Combined COMM 1030 and 1031/1032 n=120 students, 60 sections) ❖ **Intermediate Level:** GE 202x: Research and Technology (n=541 students, 28 sections). Written research study of 15 or more pages in length. ❖ **Advanced Level:** Capstone Courses (n=550, 39 sections). Written final presentations. Student work samples vary by course and subject.
GES2: Communicate effectively through speech (KU1, 4).	All individual assessments were evaluated via the Speaker Evaluation rubric, developed by the Communications Department, consisting of 10 criteria and rated on a 5 point scale. ❖ **Introductory Level:** COMM 1402: Speech Communication as Critical Citizenship (n=482 students, 22 sections. ❖ **Intermediate Level:**

	GE 202x: Research and Technology (n=355 students, 21 sections) Final oral presentations. ❖ **Advanced Level:** Capstone Courses (n=593 students, 41 sections). Final oral presentations. Student work samples vary by course and subject.
❖ GES3: Solve problems using quantitative reasoning (KU1, 4).	❖ **Pre-College Level:** MATH 0901: Introductory Algebra (n=524 students, 12 sections). Six chapter tests, each measuring a separate mathematical skill (e.g. solving equations, polynomials, etc.) All individual assessments were evaluated via the AAC&U Quantitative Literacy (QL) Value Rubric, consisting of 6 criteria and rated on a 5 point scale. ❖ **Introductory Level:** MATH 1000: Algebra for College Students (n=407, 23 sections). Selected questions from final exam specific to quantitative reasoning. Assessed using 3 applicable QL Value rubric criteria. ❖ **Introductory Level:** MATH 1010: Foundations of Math (n=248 students, 11 sections). Selected questions from Test #3 specific to quantitative reasoning. ❖ **Introductory Level:** MATH 1016: Statistics (n=283 students, 11 sections) Final project. ❖ **Introductory Level:** MATH 1030: Problem Solving (n=24 students, 1 section) Selected portfolio problem evaluation scored holistically. ❖ **Introductory Level:** MATH 1054: Pre-calculus (n=140 students, 7 sections). Embedded questions on the final exam specific to quantitative reasoning. ❖ **Intermediate Level:** GE 202x: Research and Technology (n=154 students, 8 sections). Mathematical

	components of final project/ 15 page research paper
GES4: Think critically about concepts in multiple disciplines (KU1, 2, 4).	All individual assessments were evaluated via the AAC&U Critical Thinking Value Rubric consisting of 5 criteria and rated on a 4 point scale. ❖ **Introductory Level:** COMM 1030: College Composition (n= 205 students, 15 sections) and COMM 1031/1032: College Composition (n= 54 students, 4 sections*). Argument essay. (*Combined COMM 1030 and 1031/1032 n=259 students, 19 sections) ❖ **Intermediate Level:** GE 202x: Research and Technology (n=374 students, 17 sections). Final research paper. ❖ **Advanced Level:** Capstone Courses (n=86, 6 sections). Written final presentations. Student work samples vary by course and subject. ❖ **Intermediate and Advanced Levels:** CAPP Critical Thinking Test (n=366, 24 sections)
GES5: Demonstrate information literacy (KU1, 2, 4).	A random sample of sections was assessed using the Standardized Assessment of Information Literacy Skills (SAILS) test in the following courses: ❖ **Introductory Level:** GE 1000: (n=141 students, 6 sections) ❖ **Intermediate Level:** GE 202x: Research and Technology (n= 139 students, 8 sections) ❖ **Advanced Level:** Capstone Courses: (n=62 students, 4 sections)
[Values (V)] Students will exhibit a set of values that demonstrates: GEV1: Personal responsibility (KU2, 3).	❖ **Introductory Level:** GE 1000: Transition to Kean (n=294 students, 37 sections) CSFI - The College Success Factors Index (CSFI) is an online instrument that students complete to assess their patterns

	of behavior and attitudes in areas that contribute to student success in higher education.
GEV2: Ethical and social responsibility (KU2, 3).	❖ **Introductory Level:** GE 1000: Transition to Kean (n=561 students, 47 sections) Defining Issues Test (DIT2) measuring three behavioral traits of moral development. ❖ **Intermediate Level:** GE 202x: Research and Technology (n=577 students, 22 sections) --Successful completion of certification in "Protecting Human Research Participants" **[**3-hours of online training and certification (students must pass all 4 quizzes to earn certification)]. Comparative data analysis with 2 prior data collections from previous semesters.
GEV3: Social and civic engagement (KU2, 3).	❖ **Introductory Level:** GE 1000: Transition to Kean (n=102 students, 12 sections) Student reflection papers on their out-of-class civic engagement activity assessed via an adapted version of the AAC&U Value Civil Engagement rubric.
GEV4: Respect for diverse cultures and perspectives (KU1, 2, 3).	❖ **Introductory Level:** ID 1225: Critical Issues and Values of Contemporary Health (n=137 students, 6 sections). Written student responses to a writing prompt evaluated via AAC&U Intercultural Knowledge and Competence rubric criteria (6 total criteria analyzed on a 5 point scale).
GEV5: Life-long learning (KU1, 2, 3, 4).	❖ **Advanced Level:** Capstone courses (n=240, 17 sections) Teacher work samples assessed against the criterion "Teacher work sample demonstrates implications for professional development" rated on a 5 point scale.

Appendix 12.06

Closing the Loop Actions from Fall-Spring 2012-2013
Composition

Fall 2013 SLO Assessment

Appendix 12.6: Closing the Loop Actions recommended by faculty as a result of Fall/Spring 2012-2013 (for Composition) and Fall 2013 Assessment Results - Curricula and Classroom Experience Changes

GE SLOs	Closing the Loop Actions Resulting in Programmatic/ Curricular Improvements
[Knowledge (K)] Students will demonstrate proficiency in knowledge and content by: GEK1: Applying the scientific method to understand natural concepts and processes (KU1, 2, 4).	❖ BIOL 1000: 1) New laboratory activities and exercises will be added to include (1) open-ended questions on graphical literacy and (2) collaborative questions asking students to apply the scientific method with special attention to Conclusion, Theory, Hypothesis and Experiment as they evaluate and interpret their own work and findings from relevant, real-world and published research. 2) Stimulate class discussion about data interpretation and the scientific method by sharing real-world examples of research throughout the course. Teachers will observe and evaluate the process to find the reasons behind students' weakness. ❖ GE 202x: Research and Technology: 1) Revise curriculum to include new strategies for helping students clarify the relevance of the terms "validity" and "reliability" (e.g. in-class assignment asking students to distinguish between "validity" and "reliability"to be followed by in-class discussion for immediate student feedback). This will include GE202x faculty meeting to formalize lessons that will improve student understanding of these terms. 2) As GE202x is an intermediate level course, the question of whether or not an additional pre-requisite is needed for this course will be considered. Specifically, it is a question of adding a science requirement, such as BIO1000, to the list of pre-requisites.
GEK 2: Evaluating major theories and concepts in social sciences (KU1, 2, 4).	❖ HIST 1000 and HIST 1062 1) General Education-History classes will place renewed emphasis on using and applying primary source materials 2) General Education-History faculty will offer examples of how secondary source materials are used in creating a historiographical argument.

	❖ HIST 4990 capstone 1) Expand workshops in research and writing in both in class and online settings with emphasis on organizing the essays that effectively support historical arguments.
GEK3: Relating literature to historical context (KU 1, 2, 4).	❖ HIST 1000 and HIST 1062 1) Students will be encouraged to attend lectures and other events by Department of History faculty and invited speakers in order to strengthen their ability to understand historical context. 2) Increase the number of students completing tours at Liberty Hall Museum to improve their ability to make connections between documentary evidence, material culture and historical arguments. ❖ HIST 4990 1) Implementation of a Junior Seminar to focus on skill development including historical methods and Chicago Manual of Style technique and to strengthen historiographical skills
GEK4: Evaluating major theories and concepts in the fine arts (KU1, 2, 4).	❖ AH 1700: Art History-Prehistoric to Middle Ages. 1) Review and revise, as appropriate, course activities that prepare students for formal analysis of works of art. 2) Work with all instructors of AH 1700, both full- and part-time, to ensure that the major assignment in the course is a paper emphasizing formal analysis of works of art appropriate to the time period covered in the class. 3) In future assessments of this learning outcome, clarify what major theories and concepts in the fine arts are pertinent to an introductory course in art history in the general education sequence. Rubrics and the criteria necessary to assess student work in these areas will come from the theories and concepts identified by art history faculty in the Fine Arts Department.
[Skills (S)] Students will demonstrate the skills and technology necessary to: GES1: Write to communicate and clarify learning (KU1, 4).	❖ COMM 1030: College Composition ❖ COMM 1031/1032: College Composition 1) All composition class faculty will teach rhetorical analysis, focusing on the three artistic proofs (ethos, pathos, and logos) to help students transfer analytic skills to other contexts. 2) Revision of endpoint in-class writing assignment so

	that students can utilize pre-existing knowledge and previously discussed course readings (as opposed to a completely new reading). 3) This year's faculty orientation will include two workshops on responding to student work in ways that encourage substantive revision. ❖ GE 202x: Research and Technology 1) Emphasize conventions of genre/audience and meet in March 2014 to discuss curricular/pedagogical adaptations or changes and to design specific additional assignments to help students better understand genre/audience for research. 2) Professors will meet in March 2014 to discuss curricular/pedagogical adaptations or changes to help students improve their revision skills. Specific assignments and requirements, such as having students highlight, explain, and submit all revisions, will be discussed at said meeting. ❖ Capstone Courses 1) Results will be shared with the Director of the Academic Writing Center, asking her to create a strategy for additional writing support for our seniors, special support to Capstones who are assessing Composition and perhaps 'Composition for the Major' programming. 2) A list of suggestions – potentially a Manual for Teaching Composition in the Capstone is being developed.
GES2: Communicate effectively through speech (KU1, 4).	❖ COMM 1402: Speech Communication as Critical Citizenship 1) Continue to use the newly adopted textbook. 2) Promote increased use of "LearnSmart" instructional technology by all instructors. ❖ GE 202x: Research and Technology 1) Implementation of a mini-presentation along with the first draft of the paper, with audience (student) feedback to strengthen students' ability to utilize supporting material and communicate with fluency. ❖ Capstone Courses 1) Training to be designed and presented to capstone faculty in "fluency" and "overall impact" covering

	what each skill is, verifying that the identification of a specific level is accurate, and developing strategies for increasing student performance. 2) Resources made available for the two specific areas of focus (fluency and overall impact) for the next year to students including standard videos which demonstrate a variety of presentations along with how they would be scored using the rubric so that students can "see" what they are expected to do and not do. 3) Explanation to students of the rubric and what the specific expectations are for capstone courses in that discipline.
GES3: Solve problems using quantitative reasoning (KU1, 4).	❖ MATH 0901: Introductory Algebra 1) Students will be required to keep a notebook, which they will setup as a reference guide. They will be required to create sections for each chapter with all the formulas, properties and processes written out. They are to create reference guides for each topic that is covered, with an emphasis on Graphing Linear Equations and Factoring Polynomials. Each professor throughout the semester will review the notebooks. 2) More instruction will be given in the classroom on the topics that have proven to be more difficult for the students to master, instead of just working independently with the software. 3) The faculty has also instituted at least one mandatory tutoring session prior to each test. 4) There will no longer be an individual test for Radicals, the topic will be tested on the cumulative final instead. This will allow for more time to be spent on Graphing Equations and Factoring Polynomials which have proven to be the most difficult concepts for students to master. ❖ MATH 1000: 1) The institution has suggested that the Math department create Math0902 – a developmental math course for those who will be pursuing STEM subjects and will therefore need to proceed to Math1000. 2) university which require Math1000 to make sure that this course is an appropriate mathematics course for their students. 3) Study current Math1000 curriculum and the

	respective mathematics education research to see what models for successful algebraic development could enhance algebra learning at Kean. ❖ MATH 1016: 1) Incorporate group work and hands-on activities, beside the [student] project, that will be used in every section of the course. ❖ MATH 1010: 1) All assignments (Mathlab homework, quizzes, and tests) must be expanded/enriched with instructor designed open-ended authentic problems (at least one per assignment) that require students to go beyond calculation to explain their solution processes and reflect upon and evaluate their answers. 2) Class time must include additional practice with open-ended authentic problems and the analysis there of. To that end all quizzes will include open ended problems that will be reviewed and analyzed in class. 3) Reinforce and connect the meaning of multiplication and the limits of additive comparison through the geometry, percent, and probability components of the course and in expanded homework assignments. 4) Promote student analysis of quantitative information by including open-ended problems throughout our curriculum and providing student with opportunities to practice throughout the course. ❖ MATH 1030: 1) Review and revise core assignments based on the list of core existing problems (e.g. assumptions in problem analysis and discussions). 2) Review and revise student portfolio requirements. ❖ MATH 1054: 1) Specific content, such as the unit circle and graphs of trigonometric functions, will be targeted for greater emphasis. 2) Other content, such as routine equation solving, will be targeted for de-emphasis. ❖ GE 202x: Research and Technology

	1) Develop a practical exercise to help students to recognize and better understand how to formulate assumptions for their own project. 2) Develop specific lessons that model articles focusing on formulating assumption (with collaboration from Statistics colleagues. 3) Develop a group exercise to determine the assumptions and analysis of diverse scientific articles as well as have each student try to come up with their own as a separate "building block" for their final project with peer as well as instructors' review.
GES4: Think critically about concepts in multiple disciplines (KU1, 2, 4).	❖ COMM 1030: College Composition and COMM 1031/1032: College Composition 1) Additional class time will be spent on helping students learn to accurately present opposing viewpoints and respond to them in ways that created a more nuanced argument. ❖ GE 202x: Research and Technology 1) Lessons that illustrate model articles will be developed in collaboration with other Research and Technology colleagues. ❖ Capstone Courses: Co-develop teaching and learning strategies to promote student analysis and interpretation of sources and questioning of expert viewpoints as well as analysis of students' own assumptions and biases. Instructors of GE capstone courses will meet in March of 2014 (the mid term for Spring 2014) to plan and implement strategies pertaining to the above-mentioned critical thinking components. ❖ CAPP Critical Thinking Test. 1) The GE department is in the process of developing the GE core courses that will help transfer students in developing GE required skills, including critical thinking skills. 2) Course embedded assignments addressing critical thinking skills should be added into the R&T courses for sophomores and capstone courses for seniors. 3) Review and revise curriculum requirements to

	ensure transfer students meet the expectations for critical thinking defined by the GE department.
GES5: Demonstrate information literacy (KU1, 2, 4).	❖ GE 202x: Research and Technology 1) Librarians and faculty teaching GE 202x should develop ideas for embedding existing online information literacy tutorials and research guides into the GE 202x course (for instance, through Blackboard). 2) Librarians and faculty teaching GE 202x should consider "flipping the classroom" strategies that will require students to complete the existing online information literacy tutorials and foster additional active learning experiences as part of library instruction programming. 3) Librarians and faculty teaching GE 202x should develop and implement activities that will help students improve the Selecting Finding Tools skill. ❖ Capstone Courses: 1) The Library should pursue outreach to the academic departments in an effort to map information literacy to the curriculum beyond GE courses (i.e., in 3000- and 4000-level courses that students will take before the capstone). ❖ Institution-wide 1) The Library should monitor the upcoming revisions to the Information Literacy Competency Standards for Higher Education, which will incorporate threshold concepts and metaliteracy and will hopefully make it easier to work with faculty on integrating information literacy into the curriculum i GE as well as major courses.
[Values (V)] Students will exhibit a set of values that demonstrates: GEV1: Personal responsibility (KU2, 3).	❖ GE 1000: Transition to Kean. 1) Course was restructured to embed course content with emphasis on personal development - specifically the elements of competition and precision. 2) Students enrolled in the newly revised GE 1000 course will be required to demonstrate their abilities with a collection of works through an e-portfolio which will also be used as a platform for self-expression, maintained over time.

GEV2: Ethical and social responsibility (KU2, 3).	❖ GE 1000: Transition to Kean. 1) Course was restructured to embed course content with emphasis on ethical and social responsibility. 2) Students will engage in conversation about values and ethics as they respond orally and in writing through journal assignments to selected readings that speak to these areas. Students will confront ethical ideas through these active approaches to learning and will be assessed via a rubric. ❖ GE 202x: Research and Technology 1) Place emphasis on students' ability to translate NIH training into transferable skills beyond those of research.
GEV3: Social and civic engagement (KU2, 3).	❖ GE 1000: Transition to Kean. In collaboration with the Center for Leadership and Service: 1) Conduct in-class discussions before and after community activities. 2) Additional class time to be spent on further educating students about the purpose of the activity and discuss the learning. 3) Incorporate research activities/projects that may better address social and civic engagement.
GEV4: Respect for diverse cultures and perspectives (KU1, 2, 3).	❖ ID 1225: Critical Issues and Values of Contemporary Health 1) The course outline for ID 1225 will be revised during Spring 2014 semester to bring the outline into alignment with the current global health perspective. Currently cultural issues are generally addressed in one or two chapters/sessions rather than using an integrated approach across all topic areas. 2) Course syllabi will be reviewed to ensure that topics related to cultural awareness with a focus on Intercultural Knowledge and Competence are being covered consistently across all sections and that appropriate assignments are provided to reinforce competence. 3) Textbooks will be assessed to ensure comprehensiveness and uniformity of the information provided. A preliminary review of the textbooks used for the class reveal that the books have only limited focus on diversity and cross cultural health issues. One textbook will be identified for sections of the class.

	4) The creation of a common assignment for all sections that focuses on strengthening students' intercultural knowledge and competence with an emphasis on developing interactions with other cultures will be initiated for implementation for the Fall 2014 semester.
GEV5: Life-long learning (KU1, 2, 3, 4).	❖ Capstone courses (Dual Education Majors) 1) A dedicated course will be developed for all general education majors (SPED majors currently take a dedicated course). 2) Until this course is approved by the state of New Jersey through university protocols, interim steps to provide this information have resulted in semester seminars, embedded course modules and special forums. ❖ The National Survey of Student Engagement (NSSE). 1) Partner with MATH 1000-level and GE 202x faculty to improve students' ability to reach conclusions based on their own analysis of numerical information (numbers, graphs, statistics, etc.). 2) Please see the "GES3: Solve problems using quantitative reasoning (KU1, 4)" for specific actions that foster student acquisition of numerical analysis 3) Collaborate with faculty teaching GE values-designated courses (i.e. GE 1000 and ID 1225) to increase opportunities for students to engage in self-reflection in where course content is appropriate for student self-reflection activities (e.g. GE 1000, ID 1225, etc.)

Appendix 12.07

Course Selection Process by Proficiency Level and GE Course Requirements

Appendix 12.7: Course Selection Process by Proficiency Level and GE Course Requirements (as applicable).

GE SLOs	Introductory	Intermediate	Advanced
[KNOWLEDGE (K)] Students will demonstrate proficiency in knowledge and content by: GEK1: Applying the scientific method to understand natural concepts and processes (KU1, 2, 4).	BIOL 1000: Principles of Biology (Students are required to take one 4 credit lab science course to fulfill GE distribution requirements. BIOL 1000 is a highly enrolled course from the approved GE distribution course list)	GE 202x: Research and Technology (required GE Foundation course)	
GEK 2: Evaluating major theories and concepts in social sciences (KU1, 2, 4).	HIST 1000: History of Civil Society in America (GE distribution requirement) HIST 1062: Worlds of History (highly enrolled general education course at the introductory level)		HIST 4990 (capstone course)
GEK3: Relating literature to historical context (KU 1, 2, 4).	HIST 1000: History of Civil Society in America (GE distribution requirement) HIST 1062: Worlds of History (highly enrolled general education course at the introductory level)		HIST 4990 (capstone course)
GEK4: Evaluating major theories and concepts in the fine arts (KU1, 2, 4).	AH 1700: Art History - Prehistoric to the Middle Ages (highly enrolled course from the approved GE distribution course list).		
[SKILLS (S)] Students will demonstrate the skills and technology necessary to: GES1: Write to communicate and clarify learning (KU1, 4).	COMM 1030/1031/1032: College Composition (required GE Foundation course)	GE 202x: Research and Technology (required GE Foundation course)	Capstone courses across disciplines
GES2: Communicate	COMM 1402: Speech	GE 202x: Research and	Capstone courses across

effectively through speech (KU1, 4).	Communication as Critical Citizenship (required GE Foundation course)	Technology (required GE Foundation course)	disciplines
GES3: Solve problems using quantitative reasoning (KU1, 4).	MATH 0901: Introductory Algebra (developmental Math Requirement for students based on placement scores) One course from the following as a required GE Foundation course: ❖ MATH 1000: Algebra for College Students ❖ MATH 1010: Foundations of Math ❖ MATH 1016: Statistics ❖ MATH 1030: Problem Solving ❖ MATH 1054: Pre-calculus	GE 202x: Research and Technology (required GE Foundation course)	
GES4: Think critically about concepts in multiple disciplines (KU1, 2, 4).	COMM 1030/1031/1032: College Composition (required GE Foundation course) [Also assessed via CAAP Critical Thinking test administered to students across proficiency levels.]	GE 202x: Research and Technology (required GE Foundation course) [Also assessed via CAAP Critical Thinking test administered to students across proficiency levels.]	Capstone courses across disciplines [Also assessed via CAAP Critical Thinking test administered to students across proficiency levels.]
GES5: Demonstrate information literacy (KU1, 2, 4).	GE 1000: Transition to Kean (required GE Foundation course)	GE 202x: Research and Technology (required GE Foundation course)	Capstone courses across disciplines
[VALUES (V)] Students will exhibit a set of values that demonstrates: GEV1: Personal responsibility (KU2, 3).	GE 1000: Transition to Kean (required GE Foundation course)		

GEV2: Ethical and social responsibility (KU2, 3).	GE 1000: Transition to Kean (required GE Foundation course)	GE 202x: Research and Technology (required GE Foundation course)	
GEV3: Social and civic engagement (KU2, 3).	GE 1000: Transition to Kean (required GE Foundation course)		
GEV4: Respect for diverse cultures and perspectives (KU1, 2, 3).	ID 1225: Critical Issues and Values of Contemporary Health (GE distribution requirement)		
GEV5: Life-long learning (KU1, 2, 3, 4).	[Indirect measure: NSSE Data identified by AAC&U Life-long Learning Rubric (sample from two cohorts: freshmen and seniors)]		Education capstone courses [Supplemented with an indirect measure: NSSE Data identified by AAC&U Life-long Learning Rubric (sample from two cohorts: freshmen and seniors)]

Appendix 12.08

GE Rubrics

Appendix 12.8 GE SLO Rubrics

GE K1 Rubric: Applying the scientific method to understand natural concepts and processes

GE K1 Rubric

Applying the scientific methods to understand natural concepts and processes

GE K1 Rubric_ Scientific Method Rubric			
	Exceed Expectations (3)	**Meet Expectations (2)**	**Below Expectations (1)**
Identify the essential 6 steps of scientific methods (Observation, Hypothesis, Experiment, data, Conclusion and Theory)	Identify almost all 6 steps of scientific methods for given scenarios.	Identify most of the 6 steps of scientific method.	Identify few of the 6 steps scientific method correctly.
Organize, summarize and interpret graphic data	Accurately organize, summarize and interpret almost all of the graphic data with detailed steps and explanations.	Organize, summarize and interpret most of the graphic data correctly, but may lack of detailed steps or misinterpreted a few questions.	Attempted to organize, summarize and interpret the graphic data but failed to do it accurately for most of the questions.

GE K2 Rubric: Evaluating major theories and concepts in social sciences

	Excellent 4	Some Mastery 3	Needs Improvement 2	Poor 1
Thesis Statement/Introduction	Clear introduction/statement of purpose which explains the significance of the subject.	There is a thesis statement/introduction but its needs some clarity.	Thesis statement is unclear. Argument seems muddled.	There is no thesis statement/Introduction.
Variety of Historiographical Debate	Shows multiple levels of historiographical debate. Has read and shows an understanding of the main debates and authors.	Most of the main concepts in historiography are covered.	Has little historiographical debate.	Shows no historiographical debate.
Sources	Has read the main sources on the topic, has included them in the essay and has shown an understating of them	Shows student has read most of the sources but lacks one/two particular theories.	Most of major concepts are not here. Essay has only one or two major theorists.	No major concepts are discussed.
Organization[1]	The essay shows clear organization/purpose/flow from introduction to conclusion.	There essay has a great beginning but conclusion needs work.	Essay wanders and the argument is difficult to follow.	There is no organization or clarity in the essay.
Citations/Bibliography	Has adequate number of sources in the bibliography and these are reflected in the footnotes as well.	Most of the sources in the bibliography are included in the footnotes.	Essay's footnotes are based only on 2/3 sources, though bibliography claims many more.	Not enough sources either in bibliography or footnotes.

[1] Jonathan Mercantini, "Grading Rubric."

GE K3 Rubric: Rubric: Relating literature to historical context

	Excellent 4	Some Mastery 3	Needs Improvement 2	Poor 1
Understanding Historical Context	Understand the subject but also shows the consequences of the topic in the long and short term	Shows some understanding of the consequences of the events.	Shows very limited understanding of consequences of the event.	Shows no understanding of the topic outside of its own time period.
Understanding Historiography (Literature/Debate)	Shows an clear understanding of historical debate within the area in question.	Shows some understanding of historical debate, but needs to further clarify other historical viewpoints/literature.	A little understanding of debate but unclear about variety of viewpoints on the topic.	No understanding of notion of debate or variety of historical literature/debate.
Sources and Evidence[2]	Excellent use of sources which show a clear argument.	Uses an adequate number of sources but there are some gaps in the argument.	Some evidence provided. Argument however is almost lost through lack of sources.	Little or no evidence provided through sources to maintain the argument proposed.
Citations (Technical)	All sources are cited according to Chicago Style Manual.	All sources are cited but some have incorrect formatting.	There is a need for many more citations	Few if any sources are cited.
Grammar and Style[3]	Writing has complete sentences, with correct grammar, spelling and punctuation.	Some grammar and spelling errors but argument remains clear.	Spelling and punctuation errors take away from some clarity. Additional proof reading needed.	Major editing and proof-reading needed. Sentence structure leaves argument unclear.

[2] Jonathan Mercantini, "Grading Rubric."
[3] Op. Cit.

GE K4 Rubric: Evaluating major theories and concepts in the fine arts

	5	4	3	2	1	0
Ideas about cultural practices including religious, sexual, political practices	Explanations are explicit, nuanced, & complex	Explanations are explicit but not complex	Explanations are in general terms	Explanations are merely a vague stance	Explanations are not clear	N/A
Art historical strategies for interpreting art such as iconography, feminism, queer theory, etc.	Explanations are explicit, nuanced, & complex	Explanations are explicit but not complex	Explanations are in general terms	Explanations are merely a vague stance	Explanations are not clear	N/A
Formal analysis (how to read the visual elements of art)	Explanations are explicit, nuanced, & complex	Explanations are explicit but not complex	Explanations are in general terms	Explanations are merely a vague stance	Explanations are not clear	N/A
Art historical vocabulary	Explanations are explicit, nuanced, & complex	Explanations are explicit but not complex	Explanations are in general terms	Explanations are merely a vague stance	Explanations are not clear	N/A

GE S1 Rubric: Write to communicate and clarify learning

Descriptors for Rubric: Condensed

	5	4	3	2	1	0
Genre/Audience	Uses conventions in skillful way	Uses conventions in a somewhat skillful way	Uses conventions in formulaic way	Does not follow conventions consistently	Fails to follow most or any conventions	Not applicable
Focus	Explicit, nuanced, complex stance	Explicit and nuanced, but not complex, stance	Stance defined in general terms	Vague stance	No clear stance	Not applicable
Development	All ideas developed with specific, relevant information	Most ideas developed with specific, relevant information. Reader raise few questions	Ideas not developed consistently. Supported with vague generalization or inappropriate examples	Most ideas not developed or supported with inappropriate examples	Ideas stated, not developed	Not applicable
Organization	Structure imparts feeling of wholeness and skill	Structure imparts a feeling of wholeness but not skill	Structure breaks down in some places, though solid overall	Structure feels rough or unclear	Structure clear or confusing	Not applicable
Grammar/Mechanics	Few or no errors exist; those present have no effect on reading	Errors obvious but not distracting	Errors begin with interfere with reading	Several distracting errors or multiple patterns of error	Numerous errors make understanding text difficult or impossible	Not applicable
Revision	Almost all revisions make draft stronger	Most revisions make draft stronger.	Some revisions strengthen, but some weaken draft	Few revisions, with little effect on quality	Very few revisions; may make final worse	No evidence of revision

GE S1 RUBRIC DESCRIPTORS

This document contains an expanded explanation of the criteria making up the baseline and portfolio evaluation rubrics for College Composition (revised Summer 2011). Each criterion is briefly defined and linked to common terms used for it in composition textbooks. Characteristics of each level in a criterion are also included.

Genre/Audience: The writing demonstrates an understanding of the conventions of the genres they are writing as well as for academic writing in general.
Terms related to this criterion: conventions, community of readers, discourse community, genre, style, tone

- Score of 5: the writer follows all or almost all of the conventions for the genre and academic writing in general. In addition, the writer demonstrates a skillful ability to manipulate those conventions in ways that make their work stand out while still fulfilling the reader's expectations.
- Score of 4: the writer follows most, if not all, of the conventions for the genre and academic writing in general. There is evidence of effort made to manipulate those conventions in ways that make their work stand out while still fulfilling the reader's expectations. However, those efforts are not as skillful as a level-five essay.
- Score of 3: the writer follows most of the conventions. However, they do so in a formulaic way that shows little attempt to engage the audience.
- Score of 2: the writer follows most of the conventions but does not do so consistently. They may also not follow some conventions, but the reader gets the sense the writer understands the conventions.
- Score of 1: the writer fails to follow most or any of the genre conventions and of academic writing in general.

Focus: The writing presents a unified, clear stance with respect to the characteristics of the assignment. In a given essay, each paragraph relates to that stance.
Terms related to this criterion: main idea, purpose, stance, thesis statement

- Score of 5: explicit, nuanced stance. The reader feels like the writer has constructed a complex, well thought-out point.
- Score of 4: stance is explicit and/or nuanced, but not to the degree of a five. The reader may feel like some minor points are missing or that the stance could be more complex.
- Score of 3: stance somewhat clear, but may be defined in general terms (i.e. "subject A and B are a like in some ways and different in others" or "I agree/disagree with X" without giving reasons for their stance)
- Score of 2: vague stance or purpose. It may only apply to part of the piece.
- Score of 1: no clear stance or purpose.

Development: The main ideas in the writing are supported with specific, relevant information.
Terms related to this criterion: details, evidence, examples, facts, observations, statistics, testimony

- Score of 5: all ideas are developed with specific, relevant information that clarifies, extends, and illustrates the essay's focus. The reader feels like she or he has learned a lot from reading the piece.
- Score of 4: all major and most minor ideas are developed with specific, relevant information that clarifies, extends, and illustrates the essay's focus. However, the reader occasionally raises questions or wishes for more information.
- Score of 3: ideas are not developed consistently, causing the reader to want more information about some points. Ideas, in places, are clear or made up of vague or commonplace generalizations. Some examples may not be appropriate.
- Score of 2: most ideas are not developed or are supported with inappropriate examples. The support is made up almost entirely unclear or made up of vague or commonplace generalizations. Overall, the piece seems to have been written quickly and without the writer thinking through the ideas he or she wanted to convey.
- Score of 1: ideas are stated without any development at all.

Organization: The writing uses an overall and paragraph structures appropriate to the assignment(s).
Terms related to this criterion: coherence, cohesion, mode, patterns of development, structure, transitions

- Score of 5: the writer uses a logical order for both paragraphs and the overall pieces that imparts a feeling of wholeness and skill.
- Score of 4: the writer uses a logical order for both paragraphs and the overall piece that is effective but that may not be artful. Some slight breakdowns exist, but they are almost unnoticeable and seem more like isolated gaffes than patterns of error.
- Score of 3: the structure of the essay breaks down in some places, but holds together overall. At the paragraph level, some sentences are out of place. Some transitions between sentences are abrupt or inappropriate for the kind of relationships implied among the paragraphs ideas.
- Score of 2: the structure of the essay feels rough and unclear. At the paragraph level, multiple sentences are out of place. Most of the transitions between sentences are abrupt or inappropriate for the kind of relationships implied by the paragraph's ideas. The pieces seems to have been planned quickly and not revised.
- Score of 1: the writer uses an unclear or confusing overall organization. The paragraphs lack coherence; sentences are disorganized, with little or no effective use of transitions.

Grammar/Mechanics: the essay follows the conventions of Edited Academic English. This includes conventions for citing sources, regardless of the system used. An essay does not have to be perfect to receive a score of 5 in this criteria. Instead, consider whether the errors would either distract an average reader or make them doubt the writer's credibility.
Terms related to this criterion: diction/word choice, documentation, punctuation, sentence boundaries, sentence structure, spelling

- Score of 5: errors do not detract from the essay's central focus and from the smooth delivery of the writer's ideas. Few or no errors exist, and those that appear are minor or reflect obscure rules.
- Score of 4: errors are obvious but not to the point of distracting an average reader.
- Score of 3: grammatical, mechanical, spelling, and documentation errors begin to interfere with understanding the text's meaning. Patterns of status-marking error may exist (ex. sentence boundaries, verb endings).

- Score of 2: several distracting grammatical, mechanical, spelling, and documentation errors make understanding the text's meaning difficult. Multiple patterns of error exist.
- Score of 1: numerous distracting grammatical, mechanical, spelling, and documentation errors make understanding the text's meaning difficult or impossible.

Revision: the writer made changes between drafts to the essay's focus, organization, development, and/or style that lead to a more successful final essay. These changes can take place at any level of the text (overall, paragraph, or sentence). Invention and planning work used to create a rough draft counts as evidence of revision.

Terms related to this criterion: addition, deletion, substitution, and rearrangement. (Note: The last two are not done as often, even when they are needed.)

- Score of 5: almost all of the revisions make the final draft stronger than the original. The writer used all four forms of revision as appropriate.
- Score of 4: Most, but not all, of the revisions make the final draft stronger than the original. The writer used most of the forms of revision, but may have needed to use others. (ex. the added and deleted material, but should have also rearranged it).
- Score of 3: the draft includes some revisions that make the final draft stronger, but others are needed. The writer mostly used addition and deletion, even if substitution and rearrangement was also needed. Some of the revisions may distract from the draft's quality.
- Score of 2: The draft includes few revisions, most of which have no influence on the final draft's quality. The writer may have used only one form of revision even though others are needed.
- Score of 1: the draft includes very few revisions; most either have no influence on the final draft's quality or make it worse. It seems like the writer just retyped the original draft.

Score of 0: no evidence of revision. The writer turned in only one draft and no invention/planning work.

GE S2 Rubric: Communicate effectively through speech

Speaker Evaluation Form

Name of Speaker _____ Section _____

Student ID _____ Speech (1or 2)_____

Key: 1=Unacceptable 2=Fair 3= OK/acceptable 4=good/above average 5=excellent

Rating	Item	☑ =Postive,Effective 0=Needs Work	Comments
Content			
	Analysis of Topic	__Clear Purpose __Multi-sided argumentation __Clear central ideas __ Relevant topic	
	Supporting Material	__Credible Sources __Varied Sources __Cited Sources __Sufficient Sources __Appropriate visual aid	
	Organization	__Introduction __Transitions __Main Points Clear __Conclusion	
	Style	__Defined terms __Grammar ___Vivid Terms __Avoids clichés, jargon	
Delivery			
	Engagement	__Audience Awareness __Poise __Eye Contact __Manages Anxiety	
	Body Movement	__Posture __Facial Expression __Gestures	
	Voice Quality	__Volume __Extemporaneous ___Tone __Articulation ___Variety __Vocal Control	
	Fluency	__Freedom from notes __Effective pace __Avoids vocal filters __Effective use of Pauses __Effective rate	
Preparation			
	Outline	__Structure __Bibliography __Annotation	
Impact			
	OVERALL IMPACT	_Speaker is credible __Speech is Memorable __Appropriate use of time __Speech Accomplishes Purpose	
	FINAL GRADE		

Using the Speaker Evaluation Form

The Speaker Evaluation Form was created for the evaluation of speeches for the basic communication course, COMM 1402, Communication as Critical Citizenship. Because the course focuses on public speaking, the form seeks to address all the dimensions of a public speech. In spite of its comprehensiveness, the rubric is designed to facilitate evaluation. It is divided into 4 major components: Speech Content, Speech delivery, Speech Preparation, and Speech Impact.

Here is a brief explanation of each dimension of these categories:

Speech Content: The message of the speaker

- **Analysis of Topic**: How well does the speaker understand the topic and is able to convey that understanding authoritatively to the listeners.
    - **Clear purpose**: A standard speech is presented to either inform (relay information/teach) or to persuade (to change the listeners attitude or behavior toward the topic). Does the speaker identify his/her purpose? Does he/she stick to the purpose throughout the speech?
    - **Clear central idea (thesis statement):** Every speech focuses on a clear statement or claim. It is not the topic but a statement about the topic. Can you clearly identify that idea/thesis?
    - **Multi-sided argumentation**: An effective speaker represents various perspectives about his topic. Does the speech represent these various perspectives? Has the speaker considered possible objections to the claims the speech is making?
    - **Relevant topic**: A college-level speech should be about a topic that is consistent with higher learning. Is the topic "college level," i.e. not a demonstration speech or a definitional speech whose only source is an encyclopedia article? Is the topic socially relevant?
- **Supporting Material**: An effective speech is not a repetition of what the listeners already know about the topic. IT should add to their knowledge or offer a new perspective about that knowledge. The speech should reflect preparation and research.
    - **Credible sources**: Has the speaker cited sources that go beyond what one could learn in a elementary encyclopedia? Are the sources more than just ".com" sources?
    - **Cited sources:** is the speaker relaying where the information comes from? Is he/she only citing sources in vague ways ("studies show," or "the news reported") or are the citations detailed using the names of authors, names of publications, and dates of these publications.
    - **Varied sources**: Speeches that are "just the facts" are usually boring. Has the speaker gone beyond the facts to include the "human element" in the forms of anecdotes, narratives, and illustrations?
    - **Sufficient sources:** Has the speaker cited the minimal number of sources required by the speech assignment?
    - **Appropriate visual aid:** If a visual aid is required for the speech assignment, is the visual aid used appropriately? Does it complement and not pull attention away from the speaker? Can it be seen clearly from the back of the room?

- **Organization:** As you are listening to a speech, you should be able to discern a progression of ideas that flow out of a clear central idea. These ideas should be clear and concise enough for you to recall the speech's basic content.
    - **Introduction:** How well do the first statements of the speaker do the following?
        - Get your attention?
        - Identify the topic?
        - Establish the speaker's authority to speak about the topic?
        - Preview the main points of the speech?
        - An effective speech does <u>not</u> begin with "Hello, my name is ___ and I'm going to talk about ___."
    - **Main points clear:** Are the main ideas of the speech sufficiently clear so that they can be remembered?
    - **Transitions:** Does the speaker use connectors (previews and summaries of information, signposts) so that the speech does not sound like a list of facts but a constructed argument?
    - **Conclusion:** Do the final statements of the speaker summarize the thesis statement and review the main points to help you recall them later? Does the final statement provide a sense of closure?
- **Style:** Speeches are crafted with words that are used effectively. Here you are listening for how well the speaker uses language.
    - **Defined terms**: Does the speaker take the time to define or explain terms that may be unclear to the audience? Does the speaker use concrete language instead of words like "thing" and "stuff."
    - **Vivid terms:** Does speaker know how to "turn a phrase" and choose words that engage the imagination? Is alliteration used in main points? How well does the speaker use allegory and metaphor?
    - **Grammar:** Is the speaker careful to observe grammatical rules such as subject-verb agreement and politically correct speech.
    - **Avoids clichés and jargon:** Does the speaker use terms that both recognizable and appreciated? Is the speaker overusing terms such as "like" or "you know"?

<u>Speech Delivery:</u> How does the speaker say the speech? Speeches are not like reports where the focus is simply on the content of the message. Speeches are relational. The speaker thinks about the audience and makes effective use of nonverbal communication and message adaptation to ensure that audience will be affected by the message.

- **Engagement:** How well does the speaker "connect" with the listeners? Does the speaker apply techniques to convey *goodwill* and *charisma* to those listening?
    - **Audience Awareness:** Is the speaker more focused on whom he/she is communicating with the speech itself. From the beginning of the speech, is the speaker working on audience rapport?
    - **Eye contact:** is the speaker spending a majority of the speech looking into the faces of his/her listeners? This is especially important during the introduction and conclusion of the speech. If using a visual aid, is the speaker looking at the audience or the visual aid?

    - **Poise:** Does the speaker demonstrate confidence in himself or herself so as to set the audience at ease? Does his/her manner encourage attentiveness to the message of the speech?
    - **Manages anxiety:** How well does the speaker manage the fear of public speaking? Do you become overly aware of tension in the voice or body so that effectiveness of the words diminished?
- **Body Movement:** An effective speaker uses his or her body movement, gestures, and overall behavior to enhance the speech message.
    - **Posture:** Does the speaker communicate confidence by standing tall? If using a podium, is she or he free from it and not clutching or tapping it? Is the speaker so tied to his or her notes that he or she is bent over or slouched?
    - **Gestures (including body movement):** Are hand and arm movements used to complement the words of the speech rather than express the nervousness of the speaker. If the speaker moves, does he or she avoid pacing and move naturally to enhance his or her words.
    - **Facial expressions:** Is the speaker's face expressive? Does he or she take the time to smile and convey the emotions that are compatible with the content of the speech.
- **Voice quality:** Here the focus is on the speaker's ability to use his/her voice to embellish and enhance the words of the message.
    - **Volume:** Can the speaker be heard clearly from any points of the room?
    - **Tone:** Is the speaker's voice pleasant to listen to? Is their sufficient modulation in the tone so that the speech sounds like the speaker is conversing rather than reading?
    - **Variety:** Omit
    - **Extemporaneous:** Does the speaker give you the sense that he or she is talking *to* the audience and not *at* the audience? Is there sufficient freedom from the notes so that speech sounds like a conversation and not a reporting of "the facts"?
    - **Articulation:** Are the words of the speech clearly identifiable? Has the speaker taken the time to learn the correct pronunciation of key terms, phrases, or names in the speech?
    - **Vocal control:** How consistently does the speaker use her or his voice? Are there places in the speech where vocal control is lost because of nervousness? (For example, are there drops in volume, continual fumbling over works, or running out of breath?)
- **Fluency:** Like a good storytelling, a public speaker uses variety the pace of the speech to enhance comprehension and retention of the message.
    - **Freedom from notes:** Is the speaker sufficiently free from the notes so that the audience feels they are the focus of his or her attention? Is the speech frequently interrupted because the speaker is not sufficiently familiar with the material?
    - **Avoids vocal fillers:** Does the speaker frequently us "uhs" and "ums" to cover for lapses in memory or moments of silence?
    - **Effective pace (rate):** Does the speaker speak too fast so that the speech is difficult to understand? Or does the speaker speak to slow so that the information gets bogged down? Is there enough variety in the pace to make the delivery interesting?
    - **Effective use of pauses:** Does the speaker insert pauses for effect allowing the listeners to appreciate the importance of a point or time to process the information? How much are pauses due to memory lapses?

Speech Preparation

- **Outline:** While a speaker once to give a sense of spontaneity when he or she is speaking, an effective speech requires proper planning and orchestration of information. Instructors will teach students proper outlining procedures and will most likely require students to submit an outline to be graded prior to the actual delivery of the speech. This component should reflect the student's outline score.
    - **Structure:** Does the outline include the basic components of the speech with enough information so that the instructor can evaluate the flow of ideas and the analysis of the topic. Most outlines should include:
        - **Speech topic**
        - **Speech purpose**
        - **Central idea or Thesis Statement**
        - **Introduction**
        - **Main points with their supporting subpoints**
        - **Conclusion**
        - **Transitions: Connectives between the main points**
    - **Bibliography or References:** Does the outline include the required number of references that *are actually used in the speech*? Are the references in proper APA or MLA format?
    - **Annotation:** Does the bibliography include a brief statement about the content of each sources (optional).

Impact: The impact is not where you evaluate the speaker but where you evaluate yourself after having heard the speech. If the speech was informative, have you learned something about the topic? If the speech was persuasive, have you been influenced to think or act differently with regard to the topic?

- **Overall impact:** Often an effective speech can be more (or less) the sum of its parts. A speech itself may have some deficiencies, but as you reflect on the speech as a whole, you realize that it has been impactful. On the other hand, a speech may be technically flawless in each component, but the overall effect is not as strong. These are the items to consider:
    - **Speaker is credible:** Has the speaker demonstrated sufficient mastery of the material so that he or she has spoken authoritatively? At any point in the speech did you feel that the speaker was playing fast and loose with the information or did not care whether or not audience was affected?
    - **Speech is memorable:** Have you retained the essential information of the speech so that could talk about or share it's content with someone else? If you were given a test on the speech content, could you pass it?
    - **Appropriate use of time:** Did the speaker stay within the time constraints of the assignment? Neither too long nor too short?
    - **Speech accomplishes purpose:** Did the speaker accomplish what she or he set out to do? If speech was to inform, have the listeners learned? If the speech was to persuade, have the listeners been influenced attitudinally or behaviorally by the speech?

Scoring the Speech Rubric

The speech rubric was originally designed to assess the public speaking instruction of COMM 1402. Each of the ten categories receives a score of 1-5 (with 5 being the superior score) for both the informative and the persuasive speeches. The means of these scores given to the components on the first speech was compared to the corresponding means of the components on the second speech. Using a statistical measure called a T-test, the comparison should determine if there has been significant improvement in the areas measured. Special instructions are given to COMM 1402 on how to report this data for assessment purposes.

The four column format of the rubric is designed to give a student meaningful and timely feedback for his or her speech. You should be able to evaluate the speech completely while the speech is being given. The first column (Rating) is where you will place the 1-5 score for each component measured, the second names the component that you are evaluating, the third serves as *shorthand* for you to simply indicate the areas where the speaker has been effective or ineffective, and the fourth is an area where you can provide your own verbal feedback to the student about the speech.

For assessment purposes, The Department of General Studies suggests you base your numerical scores in column 1 (Rating) on the number of items checked or unchecked for each dimension in column 3.

If a dimension has 5 indicators, you can simply consider each indicator worth one point. If the student has been successful in all 5 dimensions, the score would be 5. All 4, the score would be 4, etc. (Please note: For the purpose of statistical analysis, the lowest score is a "1" and not a "0")

If a dimension has 4 indicators….4 out of 4 is scored 5, 3 out of 4 can be scored a either as a 4 or 3, 2 out of 4 can be scored as a 3 or 2, and 1 out of 4 can be scored as a 2 or a 1.

If a dimension has 3 indicators…3 out of 3 is scored a 5, 2 out of 3 is scored a 4 or 3, 1 out of 3 is scored a 2 or 1.

It needs to be understood that evaluating a speech is a subjective process and the meaning of the scores need to be interpreted as such. Nonetheless, the rubric is applied so that we can approximate an overall consistency as to how speeches and presentations are evaluated both the COMM 1402 as well as other General Studies courses.

GE S3 Rubric: Solve problems using quantitative reasoning

Quantitative Literacy VALUE Rubric

for more information, please contact value@aacu.org

Association of American Colleges and Universities

Definition

Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a "habit of mind," competency, and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	**Milestones** 3	2	1
Interpretation *Ability to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words).*	Provides accurate explanations of information presented in mathematical forms. Makes appropriate inferences based on that information. *For example, accurately explain the trend data shown in a graph and make reasonable predictions regarding what the data suggest about future events.*	Provides accurate explanations of information presented in mathematical forms. *For instance, accurately explain the trend data shown in a graph.*	Provides somewhat accurate explanations of information presented in mathematical forms, but occasionally makes minor errors related to computations or units. *For instance, accurately explain trend data shown in a graph, but may miscalculate the slope of the trend line.*	Attempts to explain information presented in mathematical forms, but draws incorrect conclusions about what the information means. *For example, attempt to explain the trend data shown in a graph, but will frequently misinterpret the nature of that trend, perhaps by confusing positive and negative trends.*
Representation *Ability to convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words).*	Skillfully converts relevant information into an insightful mathematical portrayal in a way that contributes to a further or deeper understanding.	Competently converts relevant information into an appropriate and desired mathematical portrayal.	Completes conversion of information but resulting mathematical portrayal is only partially appropriate or accurate.	Completes conversion of information but resulting mathematical portrayal is inappropriate or inaccurate.
Calculation	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem. Calculations are also presented elegantly (clearly, concisely, etc.)	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem.	Calculations attempted are either unsuccessful or represent only a portion of the calculations required to comprehensively solve the problem.	Calculations are attempted but are both unsuccessful and are not comprehensive.
Application / Analysis *Ability to make judgments and draw appropriate conclusions based on the quantitative analysis of data, while recognizing the limits of this analysis.*	Uses the quantitative analysis of data as the basis for deep and thoughtful judgments, drawing insightful, carefully qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for competent judgments, drawing reasonable and appropriately qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for workmanlike (without inspiration or nuance, ordinary) judgments, drawing plausible conclusions from this work.	Uses the quantitative analysis of data as the basis for tentative, basic judgments, although is hesitant or uncertain about drawing conclusions from this work.
Assumptions *Ability to make and evaluate important assumptions in estimation, modeling, and data analysis.*	Explicitly describes assumptions and provides compelling rationale for why each assumption is appropriate. Shows awareness that confidence in final conclusions is limited by the accuracy of the assumptions.	Explicitly describes assumptions and provides compelling rationale for why assumptions are appropriate.	Explicitly describes assumptions.	Attempts to describe assumptions.
Communication *Expressing quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized).*	Uses quantitative information in connection with the argument or purpose of the work, presents it in an effective format, and explicates it with consistently high quality.	Uses quantitative information in connection with the argument or purpose of the work, though data may be presented in a less than completely effective format or some parts of the explication may be uneven.	Uses quantitative information, but does not effectively connect it to the argument or purpose of the work.	Presents an argument for which quantitative evidence is pertinent, but does not provide adequate explicit numerical support. (May use quasi-quantitative words such as "many," "few," "increasing," "small," and the like in place of actual quantities.)

GE S4 Rubric: Think critically about concepts in multiple disciplines

CRITICAL THINKING VALUE RUBRIC

for more information, please contact value@aacu.org

Association of American Colleges and Universities

Definition

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone	Milestones		Benchmark
	4	3	2	1
Explanation of issues	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.	Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown.	Issue/problem to be considered critically is stated without clarification or description.
Evidence *Selecting and using information to investigate a point of view or conclusion*	Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.
Influence of context and assumptions	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.
Student's position (perspective, thesis/hypothesis)	Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/hypothesis) are acknowledged. Others' points of view are synthesized within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue.	Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.
Conclusions and related outcomes (implications and consequences)	Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.

GE V3 Rubric: Social and civic engagement

CIVIC ENGAGEMENT VALUE RUBRIC

for more information, please contact value@aacu.org

Definition

Civic engagement is "working to make a difference in the civic life of our communities and developing the combination of knowledge, skills, values, and motivation to make that difference. It means promoting the quality of life in a community, through both political and non-political processes." (Excerpted from *Civic Responsibility and Higher Education*, edited by Thomas Ehrlich, published by Oryx Press, 2000, Preface, page vi.) In addition, civic engagement encompasses actions wherein individuals participate in activities of personal and public concern that are both individually life enriching and socially beneficial to the community.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
Diversity of Communities and Cultures	Demonstrates evidence of adjustment in own attitudes and beliefs because of working within and learning from diversity of communities and cultures. Promotes others' engagement with diversity.	Reflects on how own attitudes and beliefs are different from those of other cultures and communities. Exhibits curiosity about what can be learned from diversity of communities and cultures.	Has awareness that own attitudes and beliefs are different from those of other cultures and communities. Exhibits little curiosity about what can be learned from diversity of communities and cultures.	Expresses attitudes and beliefs as an individual, from a one-sided view. Is indifferent or resistant to what can be learned from diversity of communities and cultures.
Analysis of Knowledge	Connects and extends knowledge (facts, theories, etc.) from one's own academic study/ field/ discipline to civic engagement and to one's own participation in civic life, politics, and government.	Analyzes knowledge (facts, theories, etc.) from one's own academic study/ field/ discipline making relevant connections to civic engagement and to one's own participation in civic life, politics, and government.	Begins to connect knowledge (facts, theories, etc.) from one's own academic study/ field/ discipline to civic engagement and to one's own participation in civic life, politics, and government.	Begins to identify knowledge (facts, theories, etc.) from one's own academic study/ field/ discipline that is relevant to civic engagement and to one's own participation in civic life, politics, and government.
Civic Identity and Commitment	Provides evidence of experience in civic-engagement activities and describes what she/ he has learned about her or himself as it relates to a reinforced and clarified sense of civic identity and continued commitment to public action.	Provides evidence of experience in civic-engagement activities and describes what she/ he has learned about her or himself as it relates to a growing sense of civic identity and commitment.	Evidence suggests involvement in civic-engagement activities is generated from expectations or course requirements rather than from a sense of civic identity.	Provides little evidence of her/ his experience in civic-engagement activities and does not connect experiences to civic identity.
Civic Communication	Tailors communication strategies to effectively express, listen, and adapt to others to establish relationships to further civic action	Effectively communicates in civic context, showing ability to do all of the following: express, listen, and adapt ideas and messages based on others' perspectives.	Communicates in civic context, showing ability to do more than one of the following: express, listen, and adapt ideas and messages based on others' perspectives.	Communicates in civic context, showing ability to do one of the following: express, listen, and adapt ideas and messages based on others' perspectives.
Civic Action and Reflection	Demonstrates independent experience and *shows initiative in team leadership* of complex or multiple civic engagement activities, accompanied by reflective insights or analysis about the aims and accomplishments of one's actions.	Demonstrates independent experience and *team leadership of* civic action, with reflective insights or analysis about the aims and accomplishments of one's actions.	Has clearly *participated* in civically focused actions and begins to reflect or describe how these actions may benefit individual(s) or communities.	Has *experimented* with some civic activities but shows little internalized understanding of their aims or effects and little commitment to future action.
Civic Contexts/Structures	Demonstrates ability and commitment to *collaboratively work across and within* community contexts and structures *to achieve a civic aim.*	Demonstrates ability and commitment to work actively *within* community contexts and structures *to achieve a civic aim.*	Demonstrates experience identifying intentional ways to *participate in* civic contexts and structures.	Experiments with civic contexts and structures, *tries out a few to see what fits.*

GE V4 Rubric: Respect for diverse cultures and perspectives

INTERCULTURAL KNOWLEDGE AND COMPETENCE VALUE RUBRIC

for more information, please contact value@aacu.org

Association of American Colleges and Universities

Definition

Intercultural Knowledge and Competence is "a set of cognitive, affective, and behavioral skills and characteristics that support effective and appropriate interaction in a variety of cultural contexts." (Bennett, J. M. 2008. Transformative training: Designing programs for culture learning. In *Contemporary leadership and intercultural competence: Understanding and utilizing cultural diversity to build successful organizations*, ed. M. A. Moodian, 95-110. Thousand Oaks, CA: Sage.)

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	**Milestones** 3	2	**Benchmark** 1
Knowledge *Cultural self- awareness*	Articulates insights into own cultural rules and biases (e.g. seeking complexity; aware of how her/his experiences have shaped these rules, and how to recognize and respond to cultural biases, resulting in a shift in self-description.)	Recognizes new perspectives about own cultural rules and biases (e.g. not looking for sameness; comfortable with the complexities that new perspectives offer.)	Identifies own cultural rules and biases (e.g. with a strong preference for those rules shared with own cultural group and seeks the same in others.)	Shows minimal awareness of own cultural rules and biases (even those shared with own cultural group(s)) (e.g. uncomfortable with identifying possible cultural differences with others.)
Knowledge *Knowledge of cultural worldview frameworks*	Demonstrates sophisticated understanding of the complexity of elements important to members of another culture in relation to its history, values, politics, communication styles, economy, or beliefs and practices.	Demonstrates adequate understanding of the complexity of elements important to members of another culture in relation to its history, values, politics, communication styles, economy, or beliefs and practices.	Demonstrates partial understanding of the complexity of elements important to members of another culture in relation to its history, values, politics, communication styles, economy, or beliefs and practices.	Demonstrates surface understanding of the complexity of elements important to members of another culture in relation to its history, values, politics, communication styles, economy, or beliefs and practices.
Skills *Empathy*	Interprets intercultural experience from the perspectives of own and more than one worldview and demonstrates ability to act in a supportive manner that recognizes the feelings of another cultural group.	Recognizes intellectual and emotional dimensions of more than one worldview and sometimes uses more than one worldview in interactions.	Identifies components of other cultural perspectives but responds in all situations with own worldview.	Views the experience of others but does so through own cultural worldview.
Skills *Verbal and nonverbal communication*	Articulates a complex understanding of cultural differences in verbal and nonverbal communication (e.g., demonstrates understanding of the degree to which people use physical contact while communicating in different cultures or use direct/indirect and explicit/implicit meanings) and is able to skillfully negotiate a shared understanding based on those differences.	Recognizes and participates in cultural differences in verbal and nonverbal communication and begins to negotiate a shared understanding based on those differences.	Identifies some cultural differences in verbal and nonverbal communication and is aware that misunderstandings can occur based on those differences but is still unable to negotiate a shared understanding.	Has a minimal level of understanding of cultural differences in verbal and nonverbal communication; is unable to negotiate a shared understanding.
Attitudes *Curiosity*	Asks complex questions about other cultures, seeks out and articulates answers to these questions that reflect multiple cultural perspectives.	Asks deeper questions about other cultures and seeks out answers to these questions.	Asks simple or surface questions about other cultures.	States minimal interest in learning more about other cultures.
Attitudes *Openness*	Initiates and develops interactions with culturally different others. Suspends judgment in valuing her/his interactions with culturally different others.	Begins to initiate and develop interactions with culturally different others. Begins to suspend judgment in valuing her/his interactions with culturally different others.	Expresses openness to most, if not all, interactions with culturally different others. Has difficulty suspending any judgment in her/his interactions with culturally different others, and is aware of own judgment and expresses a willingness to change.	Receptive to interacting with culturally different others. Has difficulty suspending any judgment in her/his interactions with culturally different others, but is unaware of own judgment.

GE V5 Rubric: Life-long learning

Note: Selected NSSE items were only analyzed based on the <u>comprehensive</u> definition generated from level 3-4 of the five elements from the AAC&U Life-long learning Rubric.

FOUNDATIONS AND SKILLS FOR LIFELONG LEARNING VALUE RUBRIC

for more information, please contact value@aacu.org

Definition

Lifelong learning is "all purposeful learning activity, undertaken on an ongoing basis with the aim of improving knowledge, skills and competence". An endeavor of higher education is to prepare students to be this type of learner by developing tspecific dispositions and skills (described in this rubric) while in school. (From The European Commission. 2000. Commission staff working paper: A memorandum on lifelong learning. Retrieved September 3, 2003, from www.see-educoop.net/education_in/pdf/lifelong-oth-enl-t02.pdf.)

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone	Milestones		Benchmark
	4	3	2	1
Curiosity	Explores a topic in depth, yielding a rich awareness and/or little-known information indicating intense interest in the subject.	Explores a topic in depth, yielding insight and/or information indicating interest in the subject.	Explores a topic with some evidence of depth, providing occasional insight and/or information indicating mild interest in the subject.	Explores a topic at a surface level, providing little insight and/or information beyond the very basic facts indicating low interest in the subject.
Initiative	Completes required work, generates and pursues opportunities to expand knowledge, skills, and abilities.	Completes required work, identifies and pursues opportunities to expand knowledge, skills, and abilities.	Completes required work and identifies opportunities to expand knowledge, skills, and abilities.	Completes required work.
Independence	Educational interests and pursuits exist and flourish outside classroom requirements. Knowledge and/or experiences are pursued independently.	Beyond classroom requirements, pursues substantial, additional knowledge and/or actively pursues independent educational experiences.	Beyond classroom requirements, pursues additional knowledge and/or shows interest in pursuing independent educational experiences.	Begins to look beyond classroom requirements, showing interest in pursuing knowledge independently.
Transfer	Makes explicit references to previous learning and applies in an innovative (new and creative) way that knowledge and those skills to demonstrate comprehension and performance in novel situations.	Makes references to previous learning and shows evidence of applying that knowledge and those skills to demonstrate comprehension and performance in novel situations.	Makes references to previous learning and attempts to apply that knowledge and those skills to demonstrate comprehension and performance in novel situations.	Makes vague references to previous learning but does not apply knowledge and skills to demonstrate comprehension and performance in novel situations.
Reflection	Reviews prior learning (past experiences inside and outside of the classroom) in depth to reveal significantly changed perspectives about educational and life experiences, which provide foundation for expanded knowledge, growth, and maturity over time.	Reviews prior learning (past experiences inside and outside of the classroom) in depth, revealing fully clarified meanings or indicating broader perspectives about educational or life events.	Reviews prior learning (past experiences inside and outside of the classroom) with some depth, revealing slightly clarified meanings or indicating a somewhat broader perspectives about educational or life events.	Reviews prior learning (past experiences inside and outside of the classroom) at a surface level, without revealing clarified meaning or indicating a broader perspective about educational or life events.

Appendix 12.09

GE 1000 T2K Curriculum

Appendix 12.9: GE 1000 T2K Curriculum

SAMPLE SYLLABUS (PLEASE PERSONALIZE)

GE 1000 Transition to Kean Section _____ Spring 2014

Day of Class: **Time of Class:**

Room:

Instructor: **Office:**

Office Phone: **FAX:**

Mailbox:

E-mail:

Office Hours:

General Education Mentor (GEM):

E-mail: Input GEMemail@kean.edu

School of General Studies Office- CAS 201 **GE phone: 908-737-0330**

Office Hours: M-F 9am to 5pm

T2K Office – CAS 201E**T2K phone: 908-737-0319**

Office Hours: M-F 9am to 5pm

Required Materials:

- College Success Factors Index (CSFI)
- Clicker Response Card Device
- Reading list – *provided by Instructor*

Objectives:

This course is designed to help prepare you for life as a college student. It is also designed to help you adjust to the rigors of college life. The goals for the course are:

A. To help you set short and long term goals and provide motivation for your success culminating in your graduation.
B. To improve your existing strengths and help you recognize/identify weaknesses that need to be strengthened.
C. To improve your learning process and skills by helping you acquire basic tools.
D. To help you develop the necessary time management and study skills needed to succeed in college.
E. To promote your awareness of the Kean campus community and create a sense of inclusion and

belonging for you in this community.

F. To foster your involvement and participation in the campus clubs, organizations, facilities, programming and activities which make Kean University a community.
G. To provide you with academic advisement resources; to foster a connection between you and your academic advisor to assist with building your course schedules and planning for graduation.
H. To provide resources, workshops, and activities' that will promote career and major exploration.
I. To provide mentorship for your academic success and teach you about academic policies.
J. To familiarize you with the General Education program and make you aware of the academic requirements you need to fulfill for graduation.
K. To meet people, make friends, and appreciate the rich diversity of students and faculty while building relationships locally and globally.
L. To help improve your information literacy skills, explore personal and life goals, and cultivate professional readiness to a level necessary for college success and thereafter.

Student Learning Outcomes - Skills
Students will demonstrate the skills and technology necessary to:

1) demonstrate information literacy (GES5)

Student Learning Outcomes - Values
Students will exhibit a set of values that demonstrates:

1) personal responsibility (GEV1)
2) ethical and social responsibility ((GEV2)
3) social and civic engagement (GEV3)
4) respect for diverse cultures and perspectives (GEV4)
5) life-long learning (GEV5)

Assessment:

AAC&U Rubrics – Civic Engagement, Life Long Learning *(see attached)*

College Success Factors Index

Course Content:

The course will meet once a week. An outline of the semester is included below. This may change as the semester progresses. Any changes to the syllabus will be announced in class or via email on a timely basis.

Course Requirements and Expectations:

		Assignments/Activities	
Block 1:	***Introduction to College Career***		
	Introduction to Technology	Technology Use: E-Portfolio, Blackboard, Clickers, Cougar Email account activation	In class and Out of Class
	Campus Safety	Campus Alert Sign Up, Campus Safety Workshop	In class and Out of Class
	Values, personality, and life goals clarification	Myers Briggs Personality Type Indicator (MBTI)** (in conjunction w/ Career Development Visit), CSFI Pre-Post Test	In class and Out of Class
Block 2:	***Academic Skills***		
	GE learning for life	Intro to Student Learning Outcomes and Rubrics, Defining General Education	In class
	Learning Support Services	Center for Academic Success - Learning Support Facilities Tour	In class and Out of Class
	College Classroom	College Acclimation Tools Review (In conjunction with Student Code of Conduct Workshop)	In class and Out of Class
	Time Management & Study Skills	Self Assessments, Best-Practices	In class
	Information Literacy	Library Visit and Scavenger Hunt	In class and Out of Class
Block 3:	***Academic Skills II - Work Skills***		
	Careers and College Goals	Resume Building**, Career Services Visit	In class and Out of Class
	Major Exploration	Change of Major day, What if**, 4 Year Plan**	In class and Out of Class
	Advisement / Keanwise	Advisement Week, Advisor Appointment	Out of Class
Block 4:	***Life Skills I***		
	Alcohol & Sex Education	Alcohol Education Online Self Assessment**, Safer Sex Workshop	Out of Class
	Stress Management	Self Assessments, Best-Practices	In class
Block 5:	***Life Skills II***		
	Kean Community: Local	Student Code of Conduct Workshop, Academic Integrity and Plagiarism Guide Review	In class
	Kean Community: Global	Global Project**	In class and Out of Class
	Student Leadership & Civic Engagement	Community Service Civic Activity**, Co-Curricular Transcript**,	Out of Class

- Topics covered in class can be supplemented with required homework assignments

- For all out-of-class activities the student is responsible for remembering the deadlines, signing up and signing in (where applicable) and collecting the proof/evidence to verify participation! = Personal Responsibility!!

- (**) Represents E-Portfolio submissions (see E-Portfolio description below)

Additional Course Requirements and Expectations:

A) **Electronic Journal (Reflection and Discussion)** ** **–** Throughout the semester students will be assigned three one-page electronic journal reflection entries responding to the topics of selected readings (reading list provided by the instructor). It should be written using a word processing program and sent as an attachment via email (to the instructor and GEM), as well as cut and pasted into the body of the email message. E-Journals should also be uploaded to Blackboard.

***Discussion* –** A discussion board for each reading topic will be posted in Blackboard. All students are to use the platform to respond to the topic and any related questions and comments posed by the instructor, GEM, or fellow classmates.

As this GE 1000 personal development course aims to cultivate the enrichment of values and diversity, through the E-Journal and Discussion Boards students will have the opportunity to engage in conversation about values and ethics Students will also have the opportunity to confront ethical ideas through these active approaches to learning.

B) ****E-Portfolio –** Students enrolled in the GE 1000 course will be required to demonstrate their abilities with a collection of works through an E-Portfolio which will also be used as a platform for self-expression, maintained over time. **All course assignments labeled with (**) should be uploaded to the E-Portfolio platform over the course of the semester.** With the consultation and approval of the instructor students may upload additional works to their E-Portfolio if appropriate and representative of the assignment. **This assignment is the heaviest weighed requirement of this course as it is reflective of student work in the course overall.**

C) **Class Participation -** Class participation is representative of active engagement in the classroom and in the
Blackboard community in addition to the attendance policy (see below) and will be graded as such.

See pages 5-6 for Grading Scheme

Attendance Policy:

Attendance is expected in all courses. Attendance will be a component of the grade of any course if so stated in the syllabus. Students are responsible for informing the instructor in advance or in a timely manner of the reasons for their absence. Instructors in consultation with their department chairs are expected to respect university practices and policies regarding what counts as an unexcused absence. Typically excused absences include illness, bereavement, or religious observances. Serious tardiness may be dealt with at the discretion of the instructor.

- In order to ensure full class participation, any student with a disabling condition requiring special accommodations (e.g., tape recorders, special adaptive equipment, special note-taking or test-taking procedures) is strongly encouraged to contact the professor at the beginning of the course. Disability Services is available for students with a primary disability of Learning Disabilities (LD) or Attention Deficit Disorder (ADD/ADHD).

Disability Services is located in the Downs Hall Building, 908-737-4910.

Academic Integrity and Student Code of Conduct

Students are responsible to become familiar with, and will be held accountable for, the information on the following websites:

1. Academic Integrity at www.kean.edu/admin/uploads/pdf/academicintegritypolicy.pdf or the website for The Guide at www.kean.edu/publications/TheGuide.pdf.
2. Student Code of Conduct at www.kean.edu/ku/Code-of-Conduct or the website for The Guide at www.kean.edu/publications/TheGuide.pdf.
3. Campus Alert, the University's emergency notification system (www.mir3.com/kean). Students are encouraged to register in the system in order to be informed of campus emergencies, weather notices, and other announcements.

Grading Scheme (Points/Percentage)

Activate Cougar E-mail Account	5	1.67%
CSFI (Pre/Post, 5 points each)	10	3.33%
Electronic Journals (3 -Readings and Discussions 5 point each)	15	5.00%
Career Services Workshop (MBTI Part 1 and Follow Up)	15	5.00%
Resume Building Rough & Final Draft (workshop - work samples)	30	10.00%
Two Meetings with your GEM (12.5 points each)	25	8.33%
Meeting with Instructor	15	5.00%
Advisement Week/Advisor Meeting	15	5.00%
Library Visit	15	5.00%
Alcohol Education	10	3.33%
Workshops:		
Campus Safety	10	3.33%
Safer Sex	10	3.33%
Student Code of Conduct (In class workshop)	10	3.33%
Civic Engagement : Local and Global		
Local Community Participation & Reflection	20	6.67%
Global Project	20	6.67%
E-Portfolio	40	13.33%
Class Participation	35	11.67%
Grand Total	300 pts	(100%)

Divide this total by 3 to get the final grade (in percent) – *See letter grade scale below*

Final Grade Scale	Letter Grade
93% <	A
92 - 89%	A-
88 - 85%	B+
84 - 82%	B
81 - 79%	B-
78 - 76%	C+
75 - 70%	C
69 - 60%	D
< 60%	F

Schedule for GE 1000, Section

Note: Schedule is tentative. Changes will be announced in class.

Date	**University Academic Calendar Spring 2014**
January 21st	**First day of classes for the semester.**
January 27th	**Last day to withdraw with a 100% refund.**
February 3rd	**Last day to withdraw with a 75% refund.**
February 10th	**Last day to withdraw with a 50% refund.**
February 17th	**President's Day- CLOSED. No class.**
March 4th	**Last day to withdraw with a grade of "W" (0% refund).**
March 10th –14th	**Spring Recess**
April 18th	**Good Friday- CLOSED. No class.**
May 16th	**Term Ends**

GE 1000 Section ___ Instructor/General Education Mentor Information Sheet Spring 2014

Please return this sheet to the instructor.

All responses will be kept confidential, and will be used only by the instructor and GEM.

Name: _____

last first middle initial

Student ID number (from your schedule): _____

Email address (you must use your Kean Email address): _____

Home telephone number: _____

Daytime telephone number: _____

Work telephone number (if different from above): _____

Campus telephone number (if applicable): _____

Home street address:

City, State, Zip Code: _____

Campus address (if applicable):

_____

Anticipated Major:_____ Career goal:_____

Number of credits you are taking: _____ Number of hours you work per week: _____

List the classes you are taking this semester:

_____

_____

List any athletic or organized campus groups/activities in which you participate:

_____

_____

Any other information you would like us to know:

_____

_____

_____

I, the undersigned student, have received a copy of the class syllabus and I understand that it is my responsibility to read it and know the information it contains. I understand that it reflects the structure of the course, but it is tentative and may be subject to change in class during the semester.

Signature *Date*

Appendix 12.10

GE SLO Assessment Report Form

Appendix 12.10 – GE SLO Assessment Report Form

DELETE AND ADD SLO HERE

DELETE AND ADD COURSE NAME HERE (IE GE202x)

Semester: FALL 2013

REPORT DATE: 1/8/2014

Speech in capstone courses is assessed based on the student's final presentation using the Speaker Evaluation created by the Kean University Communications Department. ERASE AND DESCRIBE THE STUDENT WORK SAMPLE AND THE RUBRIC USED

Number of students:
Number of sections:

Mean scores overall:

Distribution of Scores
COPY AND PASTE DISTRIBUTION CHART FROM EXCEL

Distribution of Scores:
COPY AND PASTE DISTRIBUTION TABLE FROM EXCEL

Discussion/Action/Closing the Loop:

USE THIS SECTION TO DISCUSS THE RESULTS- SUMMARIZE IN TEXT AND THEN DISCUSS AREAS TO BE FOCUSED ON, CHANGES TO BE MADE TO CURRICUM/TEACHING (CHANGES TO THE ASSESSMENT PROCESS SHOULD BE DISCUSSED SEPARATELY)