

DATA SAY

Thinking Critically at ASU - Students will be able to

- Interpret and analyze the relevance and quality of information
- Make judgments and draw conclusions based on credible evidence
- Integrate ideas into a coherent argument

Proficiency Profile Results at ASU - Jonesboro

Sample Population – Students were given a 1/10 chance to receive \$100 on their AState Cards

Freshmen (N = 234) were enrolled in First Year Experience classes Fall 2009

Seniors (N = 304) volunteered via email requests or volunteered at request of professor

Findings – Norm-Referenced ASU Students compared to other Master’s Comprehensive Colleges, Levels I and II, Freshmen and Seniors Respectively*

	<u>Entering Freshmen</u>	<u>Graduating Seniors</u>
	<u>Score/Percentile</u>	<u>Score/Percentile</u>
<u>Critical Thinking</u>	109.86/31st	112.13/39 th

*Freshmen compared to freshmen; seniors compared to seniors, at other institutions.

Findings – Criterion-Referenced

<i>Critical Thinking</i>	<u>Not Proficient</u>	<u>Marginal</u>	<u>Proficient*</u>
<u>ASU Freshmen</u>	92%	7%	1%
<u>Similar Schools</u>	91%	7%	2%
<u>ASU Seniors</u>	78%	17%	5%
<u>Similar Schools</u>	73%	19%	8%

Findings – Value Added

Freshmen – When ACT scores are controlled statistically, ASU freshmen score BELOW EXPECTED
Seniors - When ACT scores are controlled statistically, ASU seniors score AT EXPECTED
Compared to other institutions reporting Proficiency Profile Exam Scores, ASU scores in the 7th Decile Group out of 10. Thus, our value added scores fall in the 70th percentile when we control for entering ACT scores.

SO WHAT?

Taken together, these findings indicate that from a criterion-referenced viewpoint of student learning outcomes, ASU students are not competent in critical thinking. From a norm-referenced viewpoint of student learning outcomes, ASU students generally perform better than about 40% of students taking the test at universities similar to ASU.

Findings from this study mirror reported trends that students are not learning to think critically in higher education (Arum & Roksa, 2011). What factors should we consider as we create an action plan to address these findings? Below are just a few:

- How do our current outcomes relate to the mission
 - Of ASU
 - Of General Education
 - Of each college and degree program

- Do the data reflect an accurate representation of student learning at ASU?
 - Time on test is correlated with higher scores
 - Self-reports of “trying my best” on the test correlates with higher scores
 - Changes in admission standards are likely to inflate scores in the future because research indicates that better prepared freshmen tend to show more gain in these competencies by the time they graduate. In other words, the gap widens.

- Current research findings on the college experience and the Collegiate Learning Assessment:
 - Factors that correlate positively with higher critical thinking scores in students
 - Parents’ level of education
 - Faculty with high expectations; Faculty who are viewed as approachable
 - Courses that require at least 40 hours of reading/week and 20 pages of writing over the semester
 - Studying alone (not in groups)
 - Working on campus up to 10 hours (not off-campus; not more than 10 hours on campus)
 - Majors in social sciences, humanities, science, or math
 - SAT/ACT
 - College costs covered by grants/scholarships (not loans)
 - Factors that correlate negatively with higher critical thinking scores in students
 - Involvement in fraternities and sororities
 - Time spent in volunteer activities

Source: Arum and Roksa *Academically Adrift*

Based on these findings, any action plan must address the following:

Whom are we trying to reach with what gains? College gains for the less prepared are minimal at a time when, nationwide, we are responding to a call from the federal government to graduate more students in an accessible, affordable, accountable quality institution (Spellings Commission 2005; President Obama, 2010).

HOW WE CHANGED

The first step in creating change is data dissemination.

On March 29, 2011 we presented the findings about critical thinking skills of ASU students at the Create@ASU research conference. We encouraged the audience to contact Dr. Sue McLarry, chair of General Education Shared Governance Committee, with any ideas concerning further study of general education and possible intervention to improve critical thinking skills among our students.

We proposed a three-stage initiative:

- **CELEBRATE** – what is going well.

An indirect measure of learning by the students who took the ETS Proficiency Profile indicates that students are very positive about the helpfulness of the general education core at ASU. On a 7-point scale of helpfulness, the modal response about the extent to which general education courses helped students develop competencies advocated by ASU was 5, and the mean was between 5 and 6.

We celebrated those positive responses by highlighting courses and faculty who were listed by a high number of respondents when students were asked, “Which general education course, taught by whom, do you most highly recommend? Why?”

Here are the top 10 courses they listed: (* 1st-place ** 1st runner-up *** 2nd runner-up)

Concepts of Fitness *** Oral Communication College Algebra

Introduction to U.S. Government ** Introduction to Sociology

** Introduction to Philosophy * English Composition I * Introduction to Psychology

English Composition II Basic Human Nutrition

Here are the top 11 nominees for the most highly recommended general education faculty:

David Saarnio Anne Grippo Joy Trauth Christopher Rich

Hollie Huckabee * Linda Brady Joe Bonner Richard Burns

Charles Hartwig ** Robert Schroer Melony Dean

(* 1st-place ** 1st runner-up)

- **PROMULGATE** – best practices for increased critical thinking scores
- **ORIGINATE** – ways that we can collaborate and maintain a quality liberal arts program and improve critical thinking skills in our students

WHAT WE GOT

General Education Committee Recommendation to the Provost September 9, 2011

The General Education Committee reviewed the assessment data provided by the Office of Assessment and Student Learning Outcomes on critical thinking and writing. The data were derived from the administration of the ETS Proficiency Profile Exam. The critical thinking subsection is comprised of academic content of three questions from the humanities, three questions from the social sciences, and three questions from the natural sciences. The ETS Proficiency Profile Exam was administered to 234 students from First Year Experience classes and 304 Seniors who volunteered or were recruited by faculty. For the overall Proficiency Profile Exam ASU Freshmen performed below expected and Seniors at expected levels.

The ASU shared governance General Education Committee chose to use a criterion-referenced viewpoint related to the findings from the ETS Proficiency Profile. In the area of critical thinking, the findings indicate 1% of ASU Freshmen and 5% of ASU Seniors are proficient. At similar schools, Master's (Comprehensive) Colleges and Universities I and II, 2% of Freshmen and 8% of Seniors are proficient. Conversely, according to the findings the percentage of ASU Freshmen who are not proficient is 92% and at similar schools the percentage non-proficient is 91%. The findings related to Seniors at ASU are 78% are not proficient and for similar schools 73% are not proficient.

In the area of writing, the findings indicate 2% of ASU Freshmen are proficient at Level 3 writing and 78% are not proficient. The findings related to seniors at ASU are 7% are proficient at Level 3 and 66% are not proficient. Three percent (3%) of entering Freshmen students at similar Master's (Comprehensive) Colleges and Universities I and II scored proficient at Level 3 writing and 81% not proficient. At the same Colleges and Universities, 8% of the seniors were proficient and 64% were not proficient.

When Senior students at ASU who took the ETS Proficiency Profile were asked about the helpfulness of the general education courses in meeting the general education goals their response was positive. The survey included statements related to the general education goals and a 7-point scale of helpfulness. The statements began with "I believe my general education courses" and continued with a general education goal competency. For the overall survey the modal response was 5 and the mean was between 5 and 6. For the statement "I believe my general education courses improved my skills in critical thinking" the modal response was 6 "agree" and the mean was 5.5. Finally, for the statement "I believe my general education courses improved my skills in writing" the modal response was 6 "agree" and the mean was 5.4.

The General Education Committee recommends (without assigning priority)

1. Accepting the current assessment of critical thinking and writing from a sample of Freshmen and Seniors as the best data we have now;
2. Adopting the view that, while the General Education curriculum is the foundation for critical thinking and writing skills and that General Education courses will be held to account for providing that foundation, the development of students in the areas of critical thinking and proficient writing ought to be an integral element in each degree program and, as such, each degree program is responsible for incorporating critical thinking and writing in its curriculum and assessing its students in these areas;
3. Advising students to take at least some courses that are writing and reading intensive or provide those opportunities in multiple courses in a degree curriculum;

4. Encouraging the faculty to use evidence-based best practices in teaching to foster critical thinking and effective writing such as
 - a. collaborative learning experiences,
 - b. use of technology,
 - c. prompt written and verbal feedback,
 - d. opportunities for faculty and student conversation,
 - e. guidelines for time on task,
 - f. high expectations from faculty, and
 - g. opportunities for experiential learning*;
5. Appropriately valuing assessment activities by faculty for PRT as teaching, scholarship or service;
6. Providing faculty development activities related to evidence-based best practices in teaching critical thinking and effective writing;
7. Providing additional or expanded resources for student preparation of writing assignments, such as a well-supported Writing Center, E-rater software and other software as appropriate;
8. Providing additional resources for grading written assignments in large classes, such as Teaching Assistants, Graduate Assistants or modified workloads;
9. Supporting the General Education Committee during the 2011-2012 academic year as it undertakes course-specific assessment of selected General Education courses which have the primary goal of critical thinking and writing; and
10. Delegating responsibility for reviewing the future assessment findings comparing Freshmen and Seniors University-wide to the Learning Outcomes Assessment Council.

*evidence-based best practices from the National Institute for Learning Outcomes Assessment (NILOA, 2010)

October 5, 2011 Provost's Response to GEC Recommendation

Dear Sue,

Please accept this e-mail as my formal acceptance of the General Education Committee's recommendations contained in your e-mail of September 9, 2011. I will begin working immediately with our team in AAR to develop an action plan for accomplishing each of the recommendations. Once developed, I will share this action plan with your committee in addition to reporting progress on each recommendation periodically. I greatly appreciate the committee's efforts in reviewing the assessment data and in developing a series of recommendations that will enhance the development of our students. Again, thank all of you for a job well done.

Sincerely,

Glen

Glen Jones
Office of the Provost