

## Miami University Assessment

# Thinking Critically About Our Students' Critical Thinking Skills

*"Miami emphasizes critical thinking and independent thought, an appreciation of diverse views, and a sense of responsibility to our global future."*

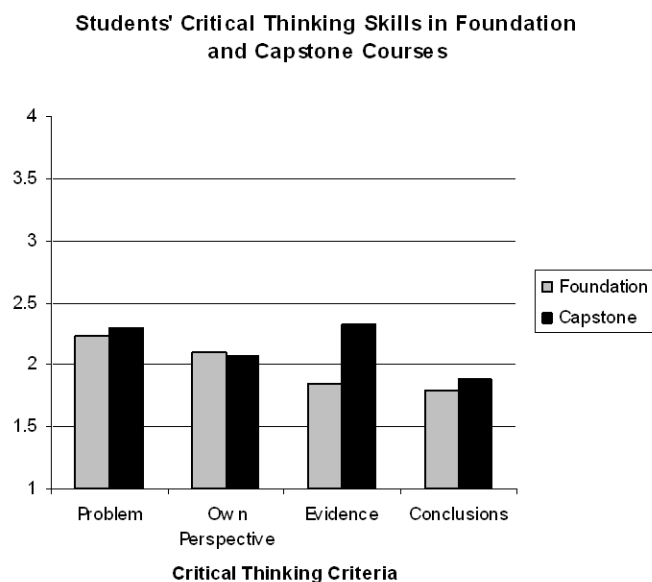
*-Miami University Mission Statement, 2008*

Critical thinking is a core component of Miami University's undergraduate curriculum. It is embedded within the university's mission statement and is one of four key principles in Miami's liberal education plan. Because critical thinking is so important to the undergraduate curriculum, it has been the focus of several assessment projects at Miami.

### Miami Students' Critical Thinking Skills

Miami students score well on national surveys addressing critical thinking. For example, Miami students are more likely to report that their institution contributed to their critical thinking skills than are students at other institutions (National Survey of Student Engagement, 2007).<sup>1</sup>

However, internally-developed assessments of students' critical thinking skills suggest that there is room for improvement. For example, the Assessment Fellows<sup>2</sup> examined student assignments for the extent to which students, 1) identified and summarized an appropriate problem/question, 2) presented their own perspective on the issue, 3) identified and assessed the quality of supporting evidence, and 4) identified and assessed their conclusions. The Fellows used a rubric with a 4-point scale that ranged from 1 (scant) to 4 (substantially developed). The results suggest that students' critical thinking skills in both Foundations and Capstone courses are relatively undeveloped. (See graph.)



An assessment of critical thinking in First-Year Seminars (FYS) revealed similar results. FYS faculty used a rubric with a scale ranging from 0 (very weak) to 3 (excellent) to assess criteria similar to those used by the Assessment Fellows. The average score for the categories ranged from 1.27 to 1.37, again suggesting that students' critical thinking could be substantially improved.

### Projects that Encourage Critical Thinking

Because one of the primary purposes of assessment is to use the data to improve student learning, a variety of projects exist to develop Miami students' critical thinking. In the "Assessing Critical Thinking" (ACT) project, faculty design methods to improve and assess students' critical thinking across a variety of courses, ranging from first-year to graduate courses. A similar program for FYS faculty utilizes a developmental model to encourage critical thinking in first-year students. In addition, the Top 25 Project promotes the use of innovative pedagogical methods in large enrollment courses to achieve several outcomes, one of which is improved critical thinking.

### Simple Tips for Promoting Critical Thinking

Sometimes simple changes can help students to improve their critical thinking. Start by identifying what critical thinking means within your discipline. Then consider the following suggestions:

- **Review your assignments to make sure they match your description of critical thinking.**
- **Clarify your critical thinking expectations to students.** Students are sometimes unclear about what critical thinking means, let alone how to do it. Talk with your students about how your discipline conceptualizes critical thinking.
- **"Scaffold" your assignments:** Create assignments and activities that assist students in gradually developing more complex critical thinking skills. Create small assignments that focus on one aspect of critical thinking, provide feedback (faculty or peer) on drafts of assignments that require critical thinking, or model some of the critical thinking skills in class.
- **Practice:** Critical thinking, like any other skill, requires practice. Ensure that there are multiple assignments or activities that help students to practice these skills and build them over time.

<sup>1</sup> For additional details on these assessments, contact the Office of Liberal Education and Assessment at [assessment@muohio.edu](mailto:assessment@muohio.edu). Previous Briefs are available at: [http://www.muohio.edu/led/assessment/Assessment\\_Briefs/Briefs.htm](http://www.muohio.edu/led/assessment/Assessment_Briefs/Briefs.htm)

<sup>2</sup> A group of Miami University faculty skilled in the assessment of critical thinking.