

## **QEP: Some Working Models for Critical Thinking**

### **I. What is Critical Thinking?**

Although there are many different ways to define ‘critical thinking’, the literature review reveals a number of overlapping characteristics. First, critical thinking involves ‘thinking about how we think’. This entails identifying background assumptions and presuppositions that may influence our thoughts. Second, it involves critically assessing whether or not these assumptions are valid, accurate or sound. Third, it involves uncovering the (social, cultural, and historical) context from which these assumptions emerge and engaging them from multiple perspectives. Fourth, it remains consistently open to revision and self-correction. And finally, it involves taking some form of focused, practical action on the basis of critical reflection (Nosich 2005; Parker and Moore 2011; Brookfield 2012; Bean 2011; Dewey 1933).

Some definitions in the literature that reflect these themes:

John Dewey (1933) “[Critical thinking] is the active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and further conclusions to which it tends constitutes reflective thought.”

Robert Ennis (1987) “Critical thinking is reasonable, reflective thinking that is focused on deciding what to believe or do.”

Matthew Lipman (1995) “Critical thinking is skillful, responsible thinking that is conducive to good judgment because it is sensitive to context, relies on criteria, and is self-correcting.”

Gerald Nosich (2005) “Critical thinking is different from just thinking. It is metacognitive—it involves thinking about your thinking.”

Barry Parker and Richard Parker (2012) “Critical thinking on a very basic level is thinking about how we think...[and] abides by the criteria of good sense and logic and involves an evaluation of the quality and effectiveness of the thinking process.”

The Delphi Report (1990) has formalized a consensus list of core cognitive skills and sub-skills of critical thinking.

#### Skill

1. Interpretation  
Sub-skill (Categorization, Decoding Significance, Clarifying Meaning)
2. Analysis  
Sub-skill (Examining Ideas, Identifying Arguments, Analyzing Arguments)
3. Evaluation

- Sub-skill (Assessing Claims, Assessing Arguments)
- 4. Inference
  - Sub-skill (Querying Evidence, Conjecturing Alternative, Drawing Conclusions)
- 5. Explanation
  - Sub-skill (Stating Results, Justifying Procedures, Presenting Arguments)
- 6. Self-Regulation
  - Sub-skill (Self-examination, self-correction)

## II. Why Critical Thinking is Important for FGCU Students

The Delphi Report (1990) has a nice statement that not only captures the importance of critical thinking but also resonates to the core ideals of a liberal arts education as well as a number of FGCU's guiding principles, such as 'diversity', 'civic responsibility', and 'interdisciplinary collaboration'. It reads: "Critical thinking is essential as a tool of inquiry. As such, critical thinking is a liberating force in education and a powerful resource in one's personal and civic life. While not synonymous with good thinking, critical thinking is a pervasive and self-rectifying human phenomenon. The ideal critical thinker is habitually inquisitive, well-informed, trustful of reason, open-minded, flexible, fair-minded in evaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry and persistent in seeking results which are as precise as the subject and circumstances of inquiry permit."

## III. Some Potential Models for FGCU: 'Integrative', 'Solo', and 'Pedagogical'

- A. *The Integrative Approach.* One possible model, following Jim Wohlpart's suggestion, is to look Bean's (2011) contention that good writing is at the heart of critical thinking. "Good writing assignments evoke a high level of critical thinking, help students wrestle productively with a course's big questions, and teach disciplinary ways of seeing, knowing, and doing" (pp. 1-2). Using carefully designed writing assignments and research projects across the curriculum, students can begin to integrate and apply the key skills of critical thinking across the curriculum. Writing assignments could be structured in ways that require students to recognize and define problems; identify, construct, and critically assess arguments; gather and evaluate relevant evidence; and anticipate counter-arguments. And, given that FGCU requires a Capstone Course or Senior Seminar for all of its undergraduate majors, there is an opportunity to assess critical thinking development at the end of their coursework. (In the Philosophy Capstone, for instance, there is a 'Philosophy Rewrite' assignment, where students take a writing assignment from an earlier course, perhaps First Year Composition, critically assess it on the basis of relevant critical thinking criteria, and rewrite the paper accordingly.)

An important consideration in the integrative approach that incorporates critical thinking through writing assignments is class size. In the literature review, a number of texts (esp. Bok 2006; Brookfield 2012) recommended moving away from large lecture courses and focus on small groups and seminars to sharpen critical thinking skills and to properly assess the clarity and rigor of writing assignments.

- B. *The Solo Approach.* Another approach is to design a stand alone critical thinking course for all FGCU students. This could be seen as a general introduction to critical thinking that focuses specifically on the nature of technically sound and clear writing, identifying rhetorical devices and fallacies in reasoning, and testing arguments for their validity and truth-value. There are a number of advantages to this approach, one being *standardization*. Using a common text, say Parker and Moore's *Critical Thinking* (2012), faculty could draw on a common set of testing and assessment materials to evaluate competencies. (To set up a pilot program for the course, FGCU could offer a summer workshop, similar to what was done with Foundations of Civic Engagement in 2005-06, for interested faculty.)

The biggest advantage of the solo approach, standardization, is also its biggest drawback. There are clear limitations to a fixed set of assessment measures as well as taking critical thinking out of the broader curriculum. It may allow faculty to gather a consistent set of data and compare student performance. But such an approach may compel faculty to 'teach to the assessment measure' and prevent students from seeing how these skills apply across disciplines or address deeper questions regarding implicit biases, cultural context, and the mission of higher education in general. It may also diminish opportunities for different approaches to pedagogy and student-centered learning.

- C. *The Pedagogical Methods Approach.*

Anne-Marie suggested that instead of focusing specifically on writing assignments, faculty could develop a suite of model assignments and classroom activities that foster critical thinking skills and the metacognitive qualities (i.e. "thinking about thinking") of critical thinking in a way that can be implemented in content-specific contexts across all courses and programs.

For example, everyone has, or should have, multi-step, problem-solving assignments in courses. Faculty could be taught how to structure these assignments in ways that explicitly strengthen and develop the critical thinking potential of these assignments. In the case of art, for instance, a student may be asked to develop a creative project for a studio assignment, and the instructor could restructure the assignment to add critical thinking

features, e.g. a post-project analysis that asks students to reflect on their own process and what they would do differently, or where their decisions and choices could have been improved.

The same kind of approach could be applied to whole courses. Students could start every course with an assessment that they design by themselves of what they know about the subject matter and how they could learn more about it. The course could end with a reflective assessment of their critical thinking process throughout the course, their own contribution to the process, and what they would do differently.