



“Improvement in students' critical thinking skills and dispositions cannot be a matter of implicit expectation... Educators must take steps to make critical thinking objectives explicit in courses and also include them in both pre - service and in - service training and faculty development.” Abrami et. al. a meta-analysis of 117 studies of the effectiveness of explicit instruction in critical thinking.<sup>1</sup>

## Critical Thinking Requirement Evaluation Guidelines\*

**Deficient:** No explicit mention of critical thinking as an intended learning outcome is found in the institution’s general education program or in the institution’s baccalaureate or associates degree learning goals.

**Weak:** Critical thinking is called for as a learning outcome of general education or as an overall goal of the baccalaureate or associates degree, but.

- “Critical thinking” is either not defined or defined idiosyncratically. That is, a local definition is created that is not convergent with the critical thinking research literature.
- No explicit institutional approval or faculty review process exists for vetting proposed critical thinking courses.
- Students are presumed to have met the critical thinking requirement simply by having completed the general education program or one of the courses that the institution has designated as fulfilling that goal.

**Marginal:** Critical thinking is called for as a learning outcome of general education or as an overall goal of the baccalaureate or associates degree, and

- The institution has adopted a standard definition of “critical thinking.” That is, one that is convergent and consistent with the critical thinking research literature.
- Proposed critical thinking courses must pass a review process which insures that
  - critical thinking is an explicit goal for the course,
  - an active learning critical thinking pedagogy is to be employed in teaching the course, and
  - the syllabus includes a rubric informing students and instructors of how critical thinking is understood and how it is expected to be manifested in the course.
- Students fulfill the critical thinking requirement by earning a passing grade in an approved critical thinking course, or by achieving a sufficiently high score (e.g. 70th percentile nationally or higher) on an independent, valid, objective test of critical thinking skills.

**Positive:** All of the conditions in “marginal” are met, plus

- The critical thinking course review and approval process requires that exercises, course assignments and examinations explicitly address the critical thinking goal of the course.

**Strong:** All of the conditions in “positive” are met, plus

- There is a process for training and providing on-going support for critical thinking course instructors, particularly adjunct faculty or faculty not previously assigned to teach an approved critical thinking course.
- The training includes how to use critical thinking pedagogy, how to apply the critical thinking rubric, and how to recognize and reward with good grades those elements in the course which are intended to manifest critical thinking.

**Superior:** All of the conditions for “strong” are met, plus

- There is a solid, research-based process for using independent, valid, objective external assessment instruments to assess the effectiveness of the courses approved for critical thinking. For example, by using matched-pairs difference scores data derived from a pre-test and post-test assessments.
- Individually and collectively the students demonstrate strength in the application of their critical thinking skills and mindset using independent, objective, nationally normed measure(s).

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<sup>1</sup> Instructional Interventions Affecting Critical Thinking Skills and Dispositions: A Stage 1 Meta-Analysis. Philip C Abrami; Robert M Bernard; Evgueni Borokhovski; Anne Wade; et al, *Review of Educational Research*; Dec 2008; 78, 4; Research Library. pg. 1102