

# C-TEF

## Critical Thinking Evaluation Form

**How to use the C-TEF:**

Evidence of a student’s critical thinking skills may be found in assignment papers or other projects. Below, selected components of critical thinking are described (**bold type**), followed by samples of typical corresponding student responses (*italic type*). Where similar critical thinking responses in student papers are identified, they can be graded numerically. Space is provided for instructor commentary.

**Student Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

Key:

- 4—Outstanding—at least two well-developed, detailed examples given
- 3—Proficient—at least two examples given in general terms
- 2—Needs Improvement—one example given with little or no development
- 1—Unsatisfactory—no examples given

<b>Outstanding</b>	<b>Proficient</b>	<b>Needs Improvement</b>	<b>Unsatisfactory</b>
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**1. Analysis: Understanding ideas and purpose. Understanding the assignment.**

**1a. Analysis and Evaluation: Student broke down the assignment into its parts, discerning the difference between what the assignment indicated the student should do BEFORE writing, and what the student should actually WRITE about.** *The assignment says: “Read the textbook and the article and compare them. In no more than 150 words, identify and discuss one factor that is explained in the article, but not covered by the textbook.” The student correctly does not compare the text and article within her report, but does focus the short writing on the missing factor as required. All tasks of the assignment are completed.*

4	3	2	1
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**1b. Application: Student surmised useful information given in the assignment to the written report or essay and applied it, mirroring the assignment itself, to keep it organized and on topic.** *The assignment says: “Show how your selected author or speaker might use rhetoric as a smokescreen to hide his true thoughts or beliefs from his audience.” The student’s paper says, “His speech provided several instances of smokescreen rhetoric. For example,...” The assignment says: “List all I/O devices that will be used in your invention and describe their function.” It shows one bulleted list as an example. The student correctly uses throughout his paper the bulleted list format, followed by required text descriptions in short paragraph form.*

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The C-TEF was developed by faculty participants in the Critical Thinking Seminar presented by the Center for Excellence in Teaching and Learning (CETL), Queensborough Community College, Fall Semester, 2009: Kathleen Rowe (Basic Educational Skills), Andrea Salis (Health & Physical Education), Kathleen Wentrack (Art & Photography), Joanne Snider (Business).  
 Criteria selected for inclusion in the C-TEF were based on Erwin T. Dary’s (2000) definitions of critical thinking derived from Jones’ et al. 1995 study, *National Assessment of College Student Learning: Identifying College Graduates’ Essential Skills in Writing, Speech and Listening, and Critical Thinking* (NCES 95–001). Washington, DC: U.S. Government Printing Office. Format of the C-TEF was based on the QCC Campus Writing Center’s Tutor Evaluation Form (TEF), developed under the guidance of CWC Tutor Supervisor, Joseph Labozzetta.

## 2. Interpretation Skills

**2a. Categorization: Student made comparisons; noted similarities and differences between or among topic items.** “Comparing Smith’s and Jones’s theories, each agreed that...” “Smith claims that...while Jones, in contrast, asserts that...” 4 3 2 1

**2b. Detecting indirect persuasion: Student detected instances where irrelevant topics or considerations are brought into an argument that diverts attention from the original issues.** “Although the politician was asked questions about her current policies that could have been answered with facts, she avoided direct answers and referred instead to her voting record on past successful but irrelevant issues. For example...” “His answer was completely off topic. He said...” 4 3 2 1

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## 3. Evaluation Skills

**3a. Student evaluated the credibility of sources of information whether website, book, journal article, newspaper article, etc.** “Closer examination of the website revealed this source was the work of an individual unidentified blogger whose own sources were not identified. As a tertiary source...” “The journal article information was published by an internationally respected source known for its juried selection process.” “The claims made by this source are questionable because the author has a financial stake in the marketing of products designed to fix the problems supposedly revealed by his theory.” 4 3 2 1

**3b. Student evaluated the accuracy of sources of information.** “The author made questionable claims that an individual could safely lose ten pounds in five days. That claim could not be verified and, in fact, contradicted extensive research from reliable sources in the field.” “Since the accuracy of this source’s claims could not be verified, other sources were researched such as WebMD and mayoclinic...which have reputations for impeccable accuracy.” 4 3 2 1

**3c. Student evaluated the reliability of sources of information.** “Since the information given was based on one very small study with no replication, its reliability can not be confirmed.” “The authors’ original study has been replicated by numerous independent researchers such as...for more than a decade.” 4 3 2 1

**3d. Student assessed statistical information used as evidence to support an argument. Statistical or numerical data were accurately understood and explained. Student was able to accurately interpret his own statistical research data. Student was able to accurately interpret and evaluate charts and graphs found in research sources.** “Although the data in Figure 1 seemed valid on first examination, closer scrutiny revealed that the data points shown were not placed on the graph according to standard convention. Further research revealed that the data in Figure 1 of this report were, in fact, an attempted manipulation of compressed data taken from an original report published by...” “The news report said that average American income is \$50,000 but, it didn’t say what kind of average: mean, median, modal, geometric, etc.” 4 3 2 1

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#### 4. Inference Skills

**4a. Collecting and Questioning Evidence: Determined what is the most significant aspect of a problem or issue that needs to be addressed, prior to collecting evidence.** “Although recent critiques of the sculpture agreed that...none addressed the issue of questionable provenance that was raised by Smith-Jones in 1995, implying doubtful authenticity. Therefore, this study will pursue that line of research.” “In the course of prior reviews of the literature, there appeared to be a lack of attention to effects of various medications on female subjects. Given the pervasive physiological and biochemical differences between females and males, this significant issue will be examined closely to determine whether objective evidence supports this intuitive observation, and what the ramifications of such omission may be.”

4 3 2 1

**4b. Developing Alternative Hypotheses: Seeks the opinion of others, or researched evidence, to identify and consider alternatives.** “Most people interviewed agreed that, if forced to choose, the older, uncolored movie was the better one to buy.” “Leading theorists in the field such as Smith and Jones propose the hypothesis that...while dissenters to that view such as Doe and Roe present evidence that...” **Seeks evidence to confirm or disconfirm alternatives.** “After examining the weight of evidence on both sides of the issue, it is clear that the preponderance of evidence favors the opinion that...”

4 3 2 1

**4c. Drawing Conclusions: Reasoning well with divergent points of view, especially those with which one disagrees, in formulating an opinion on an issue or problem.** “An opposing view to the one presented here has a great deal of evidence in its favor. For example...” “However, the strengths of the opposing view notwithstanding, a fatal flaw in that opinion is...” “Although I disagree as a matter of principle, I have to admit that...”

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#### 5. Presenting Arguments Skills

**5a. Student presents an argument succinctly in such a way as to convey the crucial point of issue. Student’s introduction contains a clear thesis statement, i.e., an arguable opinion, as opposed to the mere statement of a topic theme.** “Autumn’s beautiful colors are said to be the result of natural processes. I contend that the little elf, Jack Frost, is responsible for the season’s hues.” “Of all the arguments made pro and con on this issue of equality, the most salient is...”

4 3 2 1

**5b. Cite relevant evidence and experiences to support their position. Student includes and cites information from experts in the field.** “Jones et al. found that...” **Student relates own experiences and observations to the data presented.** “My own experience with this situation was very similar to that demonstrated by Sheehy’s general theory. For example...”

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## 6. Reflection Skills

**6a. Student applies the skills of their own analysis and evaluation to their arguments to confirm and/or correct their reasoning and results.** *“The results of the study/survey/interviews clearly showed that my original hypothesis was not correct. Reevaluating my initial opinion, I realized that my error was in assuming that...”* *“Statistical testing yielded highly significant results, fully confirming that my initial, tentative observations were correct.”* *“After discussing the problem with a group of neighbors, I realized that there had been a misunderstanding of the information we had been given. After that, we were able to figure out what the facts really were.”*

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## 7. Disposition Characteristics

**7a. Student is curious and inquires about how and why things work.** *“When the nurse could not explain to me how a clip-thing on your finger could tell how much oxygen you were getting, I looked it up online and learned that it is called a pulse oximeter. It works by...”* *“I had wondered for a long time if there really were 15 Eskimo words for “snow” so, I went to the library and searched for books and articles that...”*

**7b. Willingly perseveres and persists at a complex task.** *“I simply could not understand the textbook explanation of how that system worked. Over a couple of weeks, I kept looking for clearer explanations online, and kept fiddling with the program on my computer until it finally made sense to me and I was able to make it work as it was supposed to.”*

**7c. Find ways to collaborate with others to reach consensus on a problem or issues. Student seeks opinion of professors and peers. Student takes a poll of opinions on the issue.** *“Professor Smith was able to refer me to a local operations manager who was very experienced with this problem. I learned a lot from our discussion and decided that...”* *“I asked ten people what their opinions were, and why. Three with the majority opinion were able to help me to narrow down the best way to...”*

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## 8. Problem Solving Skills

**8a. Use brainstorming to help generate solutions.** *In response to the question, “How does using small groups affect decision making in organizations?” student generates for consideration several opposing responses such as: “Committees just slow the process down vs. Being a member of a group can be very empowering, making the employees feel important.”* *“If you want something done quickly, just do it yourself vs. Group members can learn a great deal from each other during the decision-making process.”*

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