## Approaches to Assessing Critical Thinking

### Published Critical Thinking Tests

A number of tests have been published for assessing critical thinking of university students, mostly in the US. Most of them are general-content based, and use an objective test format, although a number of essay tests are also available.

### List of Published Critical Thinking Tests appropriate for University Students

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<th>Test</th>
<th>Description</th>
<th>Supplier/Source</th>
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| California Critical Thinking Tests (CCTST) | • Parallel Forms A and B, 34-item multiple choice test  
• Test core critical thinking skills regarded to be essential elements in U education  
• No discipline-specific knowledge required | California Academic Press, 217 La Cruz Avenue, Millbrae, CA 94030  
info@calpress.com  
(650) 697-5628 |
| Collegiate Assessment of Academic Proficiency (CAAP) | • 32 MC items  
• Testing time: 40 min  
• Measure the ability to clarify, analyze, evaluate and extend arguments | American College Testing Program,  
ACT, Iowa City, IA |
| Cornell Critical Thinking Test, Form Z | • Sections on induction, credibility, prediction and experimental planning, fallacies (especially equivocation), deduction, definition, and assumption identification | Midwest Publications, PO Box 448, Pacific Grove, CA 93950 |
| Ennis-Wier Critical Thinking Essay Test (Ennis and Weir, 1985) | • Also intended to be used as a teaching material.  
• Include: getting the point, seeing the reason and assumptions, stating one’s point, offering good reasons, seeing other possibilities (including other possible explanations), and responding to and avoiding equivocation, irrelevance, circularity, reversal of an if-then (or other conditional) relationship, overgeneralization, credibility problems, and the use of emotive language to persuade | Midwest Publications, PO Box 448, Pacific Grove, CA 93950 |
| Tasks in Critical Thinking | • Performance-based assessment of critical thinking skills of U students  
• Require skills in inquiry, analysis and communication to complete the tasks  
• Each task takes 90 minutes to complete  
• Tasks set in contexts related to one of the broad academic areas of humanities, social sciences, or natural sciences | Educational Testing Service,  
Princeton, NJ 08541, Attn Carol Owen |
| Watson-Glaser Critical Thinking Appraisal, Form S (WGCTA) | • Measure abilities involved in critical thinking  
• 40 items with 16 scenarios, can be taken in 30 minutes  
• 5 subtests: inference, recognition of assumptions, deduction, interpretation, and evaluation of arguments | Harcourt Brace Educational Measurement (Psychological Corporation) 555 Academic Court,  
San Antonio, Texas 78204-9941 |
Some sample items from the CCTST

9. Which is the following is roughly equivalent to saying, “It is not true that if Jones managed the store then Webster managed the factory.”

A = Jones did not manage the store unless Webster managed the factory.
B = Either Jones managed the store or Webster managed the factory.
C = If Webster didn’t manage the factory, Jones didn’t manage the store.
D = Jones managed the store, yet Webster did not manage the factory.
E = None of the above is even roughly equivalent.

Questions 17 and 18 are based on the following fictional situation:
A college has exactly seven student clubs – 1, 2, 3, 4, 5, 6, and 7. The college dean must pick exactly five club members, each from a different club, to serve on an important committee. Any combination of five people will do, except that if someone from 1 is selected, no one from 5 can be selected. Also, if someone from 3 is picked, someone from 5 must be picked. And, if someone from 2 is put on the committee, a member of 6 must also be put on the committee.

17. Here are five possible combinations of people for the committee. Which is the only combination that meets all the conditions?

A = 1, 2, 4, 5, 6
B = 2, 3, 4, 5, 6
C = 2, 3, 4, 6, 7
D = 1, 4, 5, 6, 7
E = 1, 2, 3, 6, 7

18. Assume the dean decides not to select someone from club 7. In that case, which other club cannot be represented on the committee?


For questions 20 and 21 use this fictitious case: “In a study of high school students at Mumford High, it was found that 75% of those students who drank two or more beers each day for a period of 60 days experienced measurable liver function deterioration. That these results could have occurred by chance was ruled out experimentally with high level of confidence.

20. If true, the Mumford High information would confirm that

A = Drinking is statistically correlated with liver deterioration in adolescents.
B = Drinking causes liver deterioration in adolescents.
C = Sex is not a factor in the relationship between alcohol and liver deterioration.
D = The researcher had a personal reason to want to prove young people should not drink.
E = The drinking age laws are out of date and should be changed.

26. “There seem to be two popular arguments in favor of life after death. One is that each of us has an immortal soul which does not die just because our body dies. The other is that some kind of belief in life after death is found in the religious traditions of almost all cultures. But clearly, the second reason does not prove the belief is true. That fact that millions of people believe in it does not make it so! So, there is no such thing as life after death.” The speaker’s reasoning is best evaluated as

A = good. It shows there probably is no life after death.
B = good. But it is factually mistaken about life after death.
C = poor. It did not consider the argument about souls not dying.
D = poor. It did not show the relevance of cultural differences.