The California Critical Thinking Skills Test

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What is the California Critical Thinking Skills Test?

The California Critical Thinking Skills Test (CCTST) is the premier critical thinking skills test in the world today. The CCTST has been used in the USA and in authorized translations worldwide with graduate student populations, executive level adult populations, and undergraduate students in all fields. It is a discipline-neutral measure of reasoning.

Purpose of the CCTST

The CCTST is designed to permit test-takers to demonstrate the critical thinking skills required to succeed in educational or workplace settings where solving problems and making decisions by forming reasoned judgments are important. Used throughout the United States and in many countries and languages around the world, the CCTST has been proven to predict strength in critical thinking in authentic problem situations and success on professional licensure examinations.

- In educational settings the CCTST is recommended for evaluating program applicants, advising individual students, learning outcomes assessment, program evaluation, accreditation and research.
- In workplace settings the CCTST is often used to assess a job applicant's reasoning skills as part of a comprehensive and cost-effective employment process or as part of a staff development plan.

CCTST Overview

The California Critical Thinking Skills Test (CCTST) is an objective measure of the core reasoning skills needed for reflective decision making concerning what to believe or what to do. The CCTST is designed to engage the test-taker's reasoning skills.

Multiple choice items use everyday scenarios, appropriate to the intended test-taker group. Each item requires that the test-taker make an accurate and complete interpretation of the question. Any specialized information needed to respond correctly is provided in the question itself.

The test items range in difficulty and complexity. Different questions progressively invite test-takers to analyze or to interpret information presented in text, charts, or images; to draw accurate and warranted inferences; to evaluate inferences and explain why they represent strong reasoning or weak reasoning; or to explain why a given evaluation of an inference is strong or weak.

The instrument is typically administered in 45-50 minutes; the length of the instrument is set to permit maximum performance within the range of possible effort for the intended test-taker group.

CCTST Scores

The CCTST provides an array of scale scores describing strengths and weaknesses in various skill areas.

All forms and versions of the California Critical Thinking Skills Test return scores on these scales: *Analysis, Evaluation, Inference, Deduction, Induction* and *Overall Reasoning Skills*.

The seven scale version of the CCTST (available online) presents scale scores in all of the individual core critical thinking skills listed above plus scores for *Interpretation* and *Explanation*; this more refined presentation supports undergraduate learning outcomes goals by enabling each of the skills to be examined by assessors and addressed by educators.

CCTST Scales

All forms and versions of the California Critical Thinking Skills Test return scores on these scales: Analysis, Evaluation, Inference, Deduction, Induction and Overall Reasoning Skills.

Scale Descriptions
Reasoning Skills - Overall:

The Reasoning Skills Overall describes overall strength in using reasoning to form reflective judgments about what to believe or what to do. To score well overall, the test-taker must excel in the sustained, focused and integrated application of core reasoning skills including analysis, interpretation, inference, evaluation, explanation, induction and deduction. The Overall score predicts the capacity for success in educational or workplace settings which demand reasoned decision making and thoughtful problem solving.

Analysis:
Analytical reasoning skills enable people to identify assumptions, reasons and claims, and to examine how they interact in the formation of arguments. We use analysis to gather information from charts, graphs, diagrams, spoken language and documents. People with strong analytical skills attend to patterns and to details. They identify the elements of a situation and determine how those parts interact. Strong interpretation skills can support high quality analysis by providing insights into the significance of what a person is saying or what something means.

Inference:
Inference skills enable us to draw conclusions from reasons and evidence. We use inference when we offer thoughtful suggestions and hypotheses. Inference skills indicate the necessary or the very probable consequences of a given set of facts and conditions. Conclusions, hypotheses, recommendations or decisions that are based on faulty analyses, misinformation, bad data or biased evaluations can turn out to be mistaken, even if they have been reached using excellent inference skills.

CCTST Scales

Evaluation:
Evaluative reasoning skills enable us to assess the credibility of sources of information and the claims they make. And, we use these skills to determine the strength or weakness of arguments. Applying evaluation skills we can judge the quality of analyses, interpretations, explanations, inferences, options, opinions, beliefs, ideas, proposals, and decisions. Strong explanation skills can support high quality evaluation by providing the evidence, reasons, methods, criteria, or assumptions behind the claims made and the conclusions reached.

Deduction:
Decision making in precisely defined contexts where rules, operating conditions, core beliefs, values, policies, principles, procedures and terminology completely determine the outcome depends on strong deductive reasoning skills. Deductive reasoning moves with exacting precision from the assumed truth of a set of beliefs to a conclusion which cannot be false if those beliefs are true. Deductive validity is rigorously logical and clear-cut. Deductive validity leaves no room for uncertainty, unless one alters the meanings of words or the grammar of the language.

Induction:
Decision making in contexts of uncertainty relies on inductive reasoning. We use inductive reasoning skills when we draw inferences about what we think must probably be true based on analogies, case studies, prior experience, statistical analyses, simulations, hypotheticals, and familiar circumstances and patterns of behavior. As long as there is the possibility, however remote, that a highly probable conclusion might be mistaken, the reasoning is inductive. Although it does not yield certainty, inductive reasoning can provide a solid basis for confidence in our conclusions.

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Insight Assessment
Result for Clemson Previews
Test/Survey: CCTST - 00.2.10 : Assignment: 4 Completed: 8/22/12 5:06 PM

Analysis: 7

Analytical reasoning skills enable people to identify assumptions, reasons and claims, and to examine how they interact in the formation of arguments. We use analysis to gather information from charts, graphs, diagrams, spoken language and documents. People with strong analytical skills attend to patterns and to details. They identify the elements of a situation and determine how those parts interact. Strong interpretation skills can support high quality analysis by providing insights into the significance of what a person is saying or what something means.

Strong

Inference: 12

Inference skills enable us to draw conclusions from reasons and evidence. We use inference when we offer thoughtful suggestions and hypotheses. Inference skills indicate the necessary or the very probable consequences of a given set of facts and conditions. Conclusions, hypotheses, recommendations or decisions that are based on faulty analyses, misinformation, bad data or biased evaluations can turn out to be mistaken, even if they have been reached using excellent inference skills.

Strong

Evaluation: 10

Evaluative reasoning skills enable us to assess the credibility of sources of information and the claims they make. And, we use these skills to determine the strength or weakness of arguments. Applying evaluation skills we can judge the quality of analyses, interpretations, explanations, inferences, options, opinions, beliefs, ideas, proposals, and decisions. Strong explanation skills can support high quality evaluation by providing the evidence, reasons, methods, criteria, or assumptions behind the claims made and the conclusions reached.

Strong

Insight Assessment
Result for Clemson Previews
Test/Survey: CCTST - 00.2.10 : Assignment: 4 Completed: 8/22/12 5:06 PM

Induction: 16

Decision making in contexts of uncertainty relies on inductive reasoning. We use inductive reasoning skills when we draw inferences about what we think must probably be true based on analogies, case studies, prior experience, statistical analyses, simulations, hypotheticals, and familiar circumstances and patterns of behavior. As long as there is the possibility, however remote, that a highly probable conclusion might be mistaken, the reasoning is inductive. Although it does not yield certainty, inductive reasoning can provide a solid basis for confidence in our conclusions.

Strong

Deduction: 13

Decision making in precisely defined contexts where rules, operating conditions, core beliefs, values, policies, principles, procedures and terminology completely determine the outcome depends on strong deductive reasoning skills. Deductive reasoning moves with exacting precision from the assumed truth of a set of beliefs to a conclusion which cannot be false if those beliefs are true. Deductive validity is rigorously logical and clear-cut. Deductive validity leaves no room for uncertainty, unless one alters the meanings of words or the grammar of the language.

Strong

OVERALL: 29

The Reasoning Skills Overall score describes overall strength in using reasoning to form reflective judgments about what to believe or what to do. High Overall scores are attained by test takers who excel in the sustained, focused and integrated application of core thinking skills measured on this test, including analysis, interpretation, inference, evaluation, explanation, induction and deduction. The Overall score predicts the capacity for success in educational or workplace settings which demand reasoned decision making and thoughtful problem solving.

Overall critical thinking skill that is superior to the vast majority of undergraduate and graduate test takers. Skills at the superior level are consistent with the potential for more advanced learning and leadership.

Percentile: 97

CCTST Four Year College Students

A note of interpretation: A score that falls in the 60th percentile indicates that out of one hundred test takers, roughly 40 would earn a higher score and 60 a lower score. A percentile score is not an indication of the percent correct, but of relative ranking. Percentile approximations are suggested for advisory purposes only.

CCTST Norms

Individual and group scores are provided for all Insight Assessment test takers. Different groups of test takers have very different performance levels and therefore their scores differ quite a bit on standardized instruments. It is important to understand how your group of test takers compares to selected external norm groups, for example, the population of comparable regional or national peer groups.

The reports for each Insight Assessment test instrument provide scores that can be benchmarked against a variety of external norms so that our clients are able to evaluate the scores of individual test takers or of their entire group.

Norms Available for the CCTST

- *Two Year Colleges*
- *Four Year Colleges and Universities*
- *Graduate Students and Professionals*
- *Health Sciences Undergraduate Students*
- *Health Science Graduate Students*
- *G835 Graduate and Professionals* *(G835 is a higher level version of the CCTST used to evaluate critical thinking and decision-making skills of executives, scientists, engineers etc.)*

CCTST Validity

• The validity of the California family of testing instruments is derived from the cross disciplinary conceptual definition of critical thinking that emerged from the APA Delphi Research Study (1988-1990) and was replicated by Department of Education supported Penn State University Research study in the mid 1990's. Scales on the CCTST correspond to the Delphi's main critical thinking skills. Items on the CCTST are drawn from a pool of items tested over the past 20 years. Items used on each form of these instruments have gone through the usual validation studies. Validation samples typically have samples composed of test taker groups inside and outside the United States. Criterion validity for the CCTST, the highest form of validity for measurement instruments, has been demonstrated through independent research.

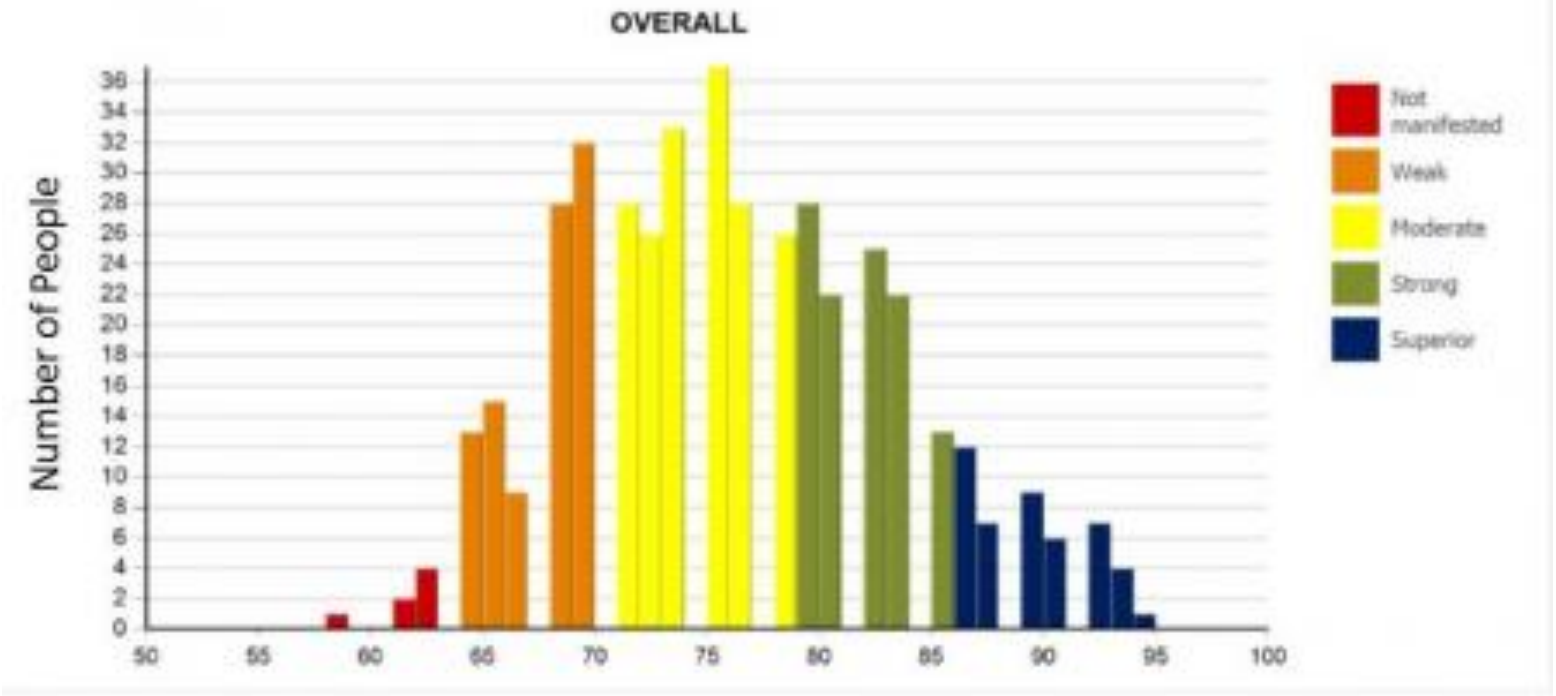
CCTST Reports

The CCTST has been designed to deliver ***high quality objective metrics*** on the strengths and weaknesses of key aspects of thinking.
CCTST reports deliver ***individual and group results in a presentation ready format***. Each report includes a wide range of statistical and demographic information about individuals and/or test-taker groups. Test-taker scores and group summaries are presented with interpretative analysis by Insight Assessment measurement scientists.
The CCTST measures and reports on an array of reasoning skill scale scores. Online versions of the CCTST provide an overall measure of thinking skills (*Total Score*) and the following individual scale scores: *Analysis, Interpretation, Inference, Evaluation, Explanation, Induction and Deduction*.

CCTST Report Graphic

Descriptive Information: OVERALL

N	Mean	Median	Standard Deviation	SE Mean	Minimum	Maximum	Quartile 1	Quartile 3
438	75.8	75.0	7.2	0.3	58	94	71.0	80.0



Thank You.