

HEIghten™ Critical Thinking Test at a Glance

Description of the Examination

The *HEIghten™* Critical Thinking test evaluates college students' ability to demonstrate two central aspects of critical thinking: **Analytical** and **Synthetic** skills.

For the **Analytical** dimension, students may be asked to (1) **analyze argument structure**, which can include identifying features such as conclusions and their supporting steps, functions of specific elements in an argument, or appeals to emotion; (2) **evaluate argument structure**, which can include identifying unstated assumptions or flaws in reasoning; (3) **evaluate evidence and its use**, which can include evaluating the evidence within a larger context (e.g., identifying additional information that might be useful in evaluating the argument), evaluating the relevance of evidence offered for a proposed conclusion, or evaluating the strength of evidence offered for a proposed conclusion by identifying information that would strengthen or weaken the argument or its conclusion.

For the **Synthetic** dimension, students may be asked to (1) **develop valid (i.e., structurally strong) or sound (i.e., valid and evidentially strong) arguments** by selecting information or statements that would constitute or contribute to such arguments for a given position; (2) **demonstrate understanding of the implications or consequences of information and argumentation** by drawing or recognizing conclusions, extrapolating implications, or recognizing or generating explanations for phenomena that are described.

In many cases, a single question may assess multiple analytical or synthetic skills. In addition, some questions may, as part of assessing analytical or synthetic skills, also assess skills in evaluating claims or drawing conclusions pertaining to causation or explanation. Some may assess skills in quantitative contexts, broadly defined, such as statistical issues involving sampling.

Format of the Examination

The *HEIghten* Critical Thinking test features three types of tasks.

Critical Thinking Sets each present a series of selected-response questions based on a shared multi-part stimulus that reflects real-world, authentic issues. The stimuli include rich information: a list of facts that may be supplemented by a graph or table, along with two or more arguments and/or statements of opinion related both to one another and to the provided facts.

Supplementing the Critical Thinking Sets in each test are **short arguments or informational passages** with one or two accompanying questions that address skills similar to those assessed in the Critical Thinking Sets, but in smaller steps, and **sets that present conditions applicable to a fictional situation** and require students to draw conclusions about what is required or permitted by those conditions.

Knowledge and Skills Required

The knowledge and skills assessed in the *HEIghten* Critical Thinking examination follow. The numbers in parentheses indicate the approximate percentages of exam questions in those dimensions.

Analytical Skills (50%)

- *Evaluate evidence and its use:* Students are able to evaluate evidence apart from the position advanced by an argument. For example, they are able to:
 - Evaluate evidence in a larger context, which may include general knowledge, additional background information provided, or additional evidence included within an argument.
 - Identify inconsistencies of conclusions drawn or posited with evidence presented, or inconsistencies within the evidence presented.
 - Identify additional information that might be needed to evaluate the argument.
 - Evaluate sources, considering such factors as relevant expertise of sources and access to information.
 - Recognize potential biases in persons or other sources providing or organizing data, including potential motivations a source may have for providing truthful or misleading information.
 - Evaluate the extent to which the evidence provided in an argument is relevant to its conclusion.
 - Evaluate how strongly the evidence provided in argument supports the conclusion offered or implied, including identifying circumstances that, if true, would strengthen or weaken the argument being evaluated.
- *Analyze and evaluate arguments:* Students are able to analyze and evaluate the structure of an argument. For example, they are able to:
 - Analyze argument structure by identifying stated and unstated premises, conclusions, and intermediate steps.
 - Identify a particular statement's role in an argument.
 - Identify appeals to emotion.
 - Evaluate argument structure, distinguishing valid from invalid arguments, including recognizing structural flaws that may be present in an invalid argument and identifying unstated assumptions.

Synthetic Skills (50%)

- *Understand implications and consequences:* Students are able to identify implications and consequences that go beyond the original argument. For example, they are able to:
 - Draw or recognize deductive or supported conclusions when a conclusion is not explicitly stated in an argument or collection of evidence.
 - Identify what further consequences are supported or deductively implied by an argument or collection of evidence.
 - Conceive of or recognize alternative explanations (i.e., circumstances that, if they obtained, would explain a collection of information provided).
- *Develop sound and valid arguments:* Students are able to construct or complete arguments that are sound and valid; that is, arguments that are both structurally and evidentially strong. For example, they are able to:
 - Employ reasoning structures that properly link premises and/or evidence with conclusions.
 - Select or provide appropriate premises and/or evidence, as part of a valid argument.

Understanding Causation and Explanation

Note: *The skills measured in this third dimension are embedded in some of the tasks that also assess the two dimensions listed above.*

- Students are able to understand, evaluate and create arguments that invoke causal claims or that offer explanations for collections of information. For example, they are able to:
 - Create or evaluate arguments that make causal claims.
 - Evaluate the extent to which an observed correlation supports a causal claim.
 - Recognize, describe, or evaluate the relevance of alternative causes for a collection of evidence.
 - Create or evaluate arguments that make explanatory claims.
 - Recognize, describe, or evaluate the relevance of alternative explanations for a collection of information.