

Guide to Critical/Creative Thinking

Intended Learning Outcome:

Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways. (See below for definitions)

Assessment may include but is not limited to the following criteria and intended outcomes:

Analyze problems/ideas critically and/or creatively

- Formulates appropriate questions to consider problems/issues
- Evaluates costs and benefits of a solution
- Identifies possible solutions to problems or resolution to issues
- Applies innovative and imaginative approaches to problems/ideas

Synthesize information/ideas into a coherent whole

- Seeks and compares information that leads to informed decisions/opinions
- Applies fact and opinion appropriately
- Expands upon ideas to foster new lines of inquiry
- Synthesizes ideas into a coherent whole

Evaluate synthesized information in order to transform problems/ideas in innovative or imaginative ways

- Applies synthesized information to inform effective decisions
- Experiments with creating a novel idea, question, or product
- Uses new approaches and takes appropriate risks without going beyond the guidelines of the assignment
- Evaluates and reflects on the decision through a process that takes into account the complexities of an issue

From Association of American Colleges & Universities, LEAP outcomes and VALUE rubrics: **Critical thinking** is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Creative thinking is both the capacity to combine or synthesize existing ideas, images, or expertise in original ways and the experience of thinking, reacting, and working in an imaginative way characterized by a high degree of innovation, divergent thinking, and risk taking.

Elements, excerpts, and ideas borrowed with permission from <u>Assessing Outcomes and Improving Achievement: Tips</u> and tools for Using Rubrics, edited by Terrel L. Rhodes. Copyright 2010 by the Association of American Colleges and Universities.



Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways. (See below for definitions)

Criteria	Inadequate	Developing	Competent	Proficient
Analyze problems/ideas critically and/or creatively	Does not analyze problems/ideas	Analyzes problems/ideas but not critically and/or creatively	Begins to analyze the problems/ideas critically and/or creatively	Analyzes the problems/ideas critically and/or creatively
Synthesize information/ideas in order to synthesize into a coherent whole	Does not synthesize information/ideas	Begins to synthesize information/ideas but not into a coherent whole	Synthesizes information/ideas but not into a coherent whole	Synthesizes information/ideas into a coherent whole
Evaluate synthesized information in order to transform problems/ideas in innovative	Does not evaluate synthesized information in order to transform problems/ideas.	Evaluates synthesized information and begins to transform problems/ideas.	Evaluates synthesized information and transforms problems/ideas.	Evaluates synthesized information and transforms problems/ideas, accounting for their complexities or nuances

From Association of American Colleges & Universities, LEAP outcomes and VALUE rubrics: **Critical thinking** is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Creative thinking is both the capacity to combine or synthesize existing ideas, images, or expertise in original ways and the experience of thinking, reacting, and working in an imaginative way characterized by a high degree of innovation, divergent thinking, and risk taking.

Elements, excerpts, and ideas borrowed with permission from <u>Assessing Outcomes and Improving Achievement:</u> <u>Tips and tools for Using Rubrics</u>, edited by Terrel L. Rhodes. Copyright 2010 by the Association of American Colleges and Universities.



Analyze the results of actions and inactions with the likely effects on the larger local and/or global communities.

Assessment may include but is not limited to the following criteria and intended outcomes:

Analyzes community needs within appropriate context

- Identifies and analyzes characteristics of a community and its members
- Identifies and analyzes the various contexts of a given community
- Analyzes past community needs based on historical context to inform current or future needs
- Analyzes present or future community needs based on understanding the contexts of that community

Identifies and analyzes impacts on community

- Identifies how choices impact local or global communities
- Analyzes how individuals can affect local or global communities in positive/negative ways
- Analyzes how one's own choices can affect local or global communities in positive/negative ways

Connects knowledge to make an informed decision on community issues.

- Connects learning to make informed decisions
- Applies learning to solve community problems/issues
- Uses specific examples and experiences to demonstrate an understanding of community issues



Analyze the results of actions and inactions with the likely effects on the larger local and/or global communities.

Criteria	Inadequate	Developing	Competent	Proficient
Analyzes community needs within appropriate context	Does not analyze the needs of the community	Begins to analyze needs of the community but lacks contextual understanding	Analyzes the needs of the community with some contextual understanding	Analyzes the needs of the community with thorough contextual understanding
Identifies and analyzes impacts on community	Does not identify the effects choices have on the local and/or global communities	Identifies but does not analyze the effects choices have on the local and/or global communities	Identifies and begins to analyze the effects choices have on the local and/or global communities	Comprehensively identifies and analyzes the effects choices have on the local and/or global communities
Connects knowledge to make an informed decision on community issues	Does not identify or connect understanding of community issues	Identifies community issues but lacks understanding of the connection between them	Begins to develop an understanding and connection of community issues to make an informed decision	Demonstrates connection of understanding and applying community issues to make informed decision



Demonstrate sensitivity to the beliefs, views, values, and practices of cultures within and beyond the United States.

Assessment may include but is not limited to the following criteria and intended outcomes:

Identifies the significant beliefs, views, values, and practices of culture(s)

- Identifies the beliefs, views, values, and practices that form a culture
- Identifies other significant elements of culture (religion, clothing, food, language, family, history, economics, etc.)

Explains cultural similarities and differences

- Explains similarities between, among, and/or within cultures
- Explains differences between, among, and/or within cultures
- Explain the ways in which culture shapes perceptions and worldview

Demonstrates sensitivity to other cultures by displaying self-reflection, introspection, and appreciation of cultural differences

- Recognizes one's own biases, prejudices, ethnocentric views, stereotypes, etc. through self-reflection and introspection
- Evaluates the effects one's own cultural values have on perceptions of other cultures
- Analyzes and appreciates cultural differences



Demonstrate sensitivity to the beliefs, views, values, and practices of cultures within and beyond the United States.

Criteria	Inadequate	Developing	Competent	Proficient
Identifies the significant beliefs, views, values, and practices of culture(s)	Does not identify the significant beliefs, views, values, and practices of the culture(s) examined	Begins to identify the significant beliefs, views, values, and practices of the culture(s) examined, but lacks specificity	Identifies the significant beliefs, views, values, and practices of the culture(s) examined using adequate evidence and examples	Identifies the significant beliefs views, values, and practices of the culture(s) examined, demonstrated by substantial evidence and examples
Explains cultural similarities and differences	Does not explain cultural similarities and differences	Begins to explain cultural similarities and differences, but lacks specificity	Explains obvious cultural similarities and differences	Explains complex cultural similarities and differences in addition to analyzing them
Demonstrates sensitivity to other cultures by displaying self- reflection, introspection, and appreciation of cultural differences	Does not demonstrate sensitivity to other cultures; lacks self- reflection, introspection, and appreciation of cultural differences	Begins to demonstrate sensitivity to other cultures; lacks sufficient self- reflection, introspection, and appreciation of cultural differences	Demonstrates sensitivity to other cultures by providing limited self-reflection, introspection, and appreciation of cultural differences	Demonstrates sensitivity to other cultures through in- depth self-reflection, introspection, and appreciation of cultural differences



Acquire, evaluate, and use information from credible sources in order to meet information needs for a specific research purpose.

Assessment may include but is not limited to the following criteria and intended outcomes:

Acquires needed information

- Identifies the need for additional information to support research
- Locates sources that are relevant to the topic and type of research
- Uses a variety of research strategies to find relevant information
- Gathers reputable background information on a research topic
- Distinguishes between reputable and non-reputable sources
- Uses primary and secondary sources, recognizing the difference between them

Uses credible information effectively for a specific purpose

- Incorporates information by means of quoting, paraphrasing, and summarizing to support conclusions
- Synthesizes information to advance the purpose of the research project
- Integrates information in an organized, structured, and sophisticated way
- Evaluates sources for reliability, validity, authority, and timeliness as appropriate to the conventions of the academic discipline
- Recognizes and avoids sources that engage in prejudice, deception, and manipulation

Uses and documents information ethically

- Incorporates information in a way that is true to the original source(s)
- Uses an appropriate citation style for citing sources and others' ideas to avoid intentional and unintentional plagiarism
- Understands the ethical and legal restrictions on information sharing, copyright, and/or confidentiality



Information Literacy Rubric

Intended Learning Outcome:

Acquire, evaluate, and use information from credible sources in order to meet information needs for a specific research purpose.

Criteria	Inadequate	Developing	Competent	Proficient
Acquires needed information	Does not acquire needed information	Acquires limited information to meet the needs of the research project	Acquires adequate information to meet the needs of the research project	Acquires substantial and relevant information to meet the needs of the research project
Uses credible information effectively for a specific purpose	Uses little to no credible information	Uses credible information, but lacks synthesis and integration	Uses credible information; synthesizes and integrates effectively to advance the purpose of the research project	Uses credible information with sophistication; synthesizes and integrates information effectively to advance the purpose of the research project
Uses and documents information ethically	Does not use or document information ethically	Uses or documents some information ethically	Uses and documents most information ethically and carefully	Uses and documents all information ethically and carefully



Guide to Communication

Oral Communication

Intended Learning Outcome: Demonstrate effective verbal and nonverbal communication for an intended audience that is clear, organized, and delivered effectively following the standard conventions of that language.

Written Communication:

Intended Learning Outcome: Demonstrate effective written communication for an intended audience that follows genre/disciplinary conventions that reflect clarity, organization, and editing skills.

Assessment may include but is not limited to the following criteria and intended outcomes:

Audience and Context

- Demonstrates an understanding and awareness of the intended audience
- Demonstrates a purpose and central message
- Explains content clearly based on rhetorical context

Content, Conventions, and Support

- Applies appropriate disciplinary or genre conventions
- Uses relevant content to persuade or communicate to his or her audience
- Uses discipline-specific terminology effectively along with appropriate supporting materials
- Organizes content in an effective and structured manner

Mechanics and Delivery

- In written communication, applies appropriate proof reading techniques to eliminate mechanical errors, including those involving typos, grammar, format, spelling, and punctuation
- In oral communication, applies delivery techniques appropriate to the audience, purpose, and context
- Uses appropriate stylistic choices for the discipline, including delivery techniques such as posture, hand gestures, eye contact and vocal variety
- Demonstrates proficiency in syntax, including varying sentence structure

Elements, excerpts, and ideas borrowed with permission from <u>Assessing Outcomes and Improving Achievement:</u> <u>Tips and tools for Using Rubrics</u>, edited by Terrel L. Rhodes. Copyright 2010 by the Association of American Colleges and Universities.



Oral Communication Rubric

Intended Learning Outcome:

Demonstrate effective verbal and nonverbal communication for an intended audience that is clear, organized, and delivered effectively following the standard conventions of that language.

Criteria	Inadequate	Developing	Competent	Proficient
Demonstrates awareness of intended audience and creates a clear central message based on context	Not aware of intended audience or context resulting in no central message	Inadequate understanding of audience or context and presents an underdeveloped central message	Understands intended audience, purpose, and context to create a central message	Understands audience, purpose, and context and conveys a clear, engaging central message
Uses appropriate language and supporting material to communicate content in an organized and meaningful way	Language and/or supporting material is not appropriate, engaging, or well- organized	Language and/or supporting material are intermittently appropriate/engaging, though presentation is disorganized	Language and/or supporting material are appropriate, engaging, and well-organized	Language and/or supporting material creates a memorable communication that is well- organized and meaningful
Applies effective delivery techniques, including appropriate formality and level of confidence	Delivery techniques for the intended audience are ineffective or inappropriate	Uses delivery techniques such as posture, hand gestures, eye contact, and vocal variety, but speaker lacks confidence or the appropriate formality	Uses delivery techniques such as posture, hand gestures, eye contact, and vocal variety with appropriate formality and confidence	Uses delivery techniques such as posture, hand gestures, eye contact, and vocal variety that enhance the oral delivery with excellent command of formality and confidence

Elements, excerpts, and ideas borrowed with permission from <u>Assessing Outcomes and Improving Achievement:</u> <u>Tips and tools for Using Rubrics</u>, edited by Terrel L. Rhodes. Copyright 2010 by the Association of American Colleges and Universities.

Guide to Quantitative Reasoning

Intended Learning Outcome:

Analyze problems, including real-world scenarios, through the application of mathematical and numerical concepts and skills, including the interpretation of data, tables, charts, or graphs.

Assessment may include but is not limited to the following criteria and intended outcomes:

Identifies and explains information or data

- Identifies appropriate data to solve a problem
- Accurately seeks information and data from appropriate sources
- Expands upon ideas to foster new lines of inquiry
- Forms relevant assumptions using sound quantitative reasoning

Performs relevant calculations and/or converts information/data

- Applies appropriate formulas in mathematical calculations
- Converts charts, graphs and/or other numerical data effectively
- Evaluates costs and benefits of potential solutions

Analyzes results to address the problem/scenario

- Applies sound quantitative reasoning to the analysis of data or information
- Accurately and proficiently synthesizes data and information to form logical conclusions
- Uses analysis/synthesis in response to problems, including real-world scenarios
- Understands limitations of analysis
- Interprets data and information to analyze real-world problems based on analysis/synthesis

Elements, excerpts, and ideas borrowed with permission from <u>Assessing Outcomes and Improving Achievement: Tips</u> <u>and tools for Using Rubrics</u>, edited by Terrel L. Rhodes. Copyright 2010 by the Association of American Colleges and Universities.



Analyze problems, including real-world scenarios, through the application of mathematical and numerical concepts and skills, including the interpretation of data, tables, charts, or graphs.

Criteria	Inadequate	Developing	Competent	Proficient
Identifies relevant information or data	No relevant information or data is identified	Some relevant information or data is identified but not accurately	Accurately identifies some, but not all relevant information or data	Accurately identifies all relevant information or data
Performs relevant calculations and/or converts information/data	Does not calculate and/or convert information/data	Calculates and converts with many errors	Calculates and converts with a few errors	Calculates and converts with no errors
Analyzes results to address the problem/scenario	Does not analyze the result	Analyzes results with no relevant or usable conclusions	Analyzes results with relevant or usable conclusions, but with some gaps	Analyzes results with relevant and usable conclusions

Elements, excerpts, and ideas borrowed with permission from <u>Assessing Outcomes and Improving Achievement:</u> <u>Tips and tools for Using Rubrics</u>, edited by Terrel L. Rhodes. Copyright 2010 by the Association of American Colleges and Universities.



Guide to Communication

Oral Communication

Intended Learning Outcome: Demonstrate effective verbal and nonverbal communication for an intended audience that is clear, organized, and delivered effectively following the standard conventions of that language.

Written Communication:

Intended Learning Outcome: Demonstrate effective written communication for an intended audience that follows genre/disciplinary conventions that reflect clarity, organization, and editing skills.

Assessment may include but is not limited to the following criteria and intended outcomes:

Audience and Context

- Demonstrates an understanding and awareness of the intended audience
- Demonstrates a purpose and central message
- Explains content clearly based on rhetorical context

Content, Conventions, and Support

- Applies appropriate disciplinary or genre conventions
- Uses relevant content to persuade or communicate to his or her audience
- Uses discipline-specific terminology effectively along with appropriate supporting materials
- Organizes content in an effective and structured manner

Mechanics and Delivery

- In written communication, applies appropriate proof reading techniques to eliminate mechanical errors, including those involving typos, grammar, format, spelling, and punctuation
- In oral communication, applies delivery techniques appropriate to the audience, purpose, and context
- Uses appropriate stylistic choices for the discipline, including delivery techniques such as posture, hand gestures, eye contact and vocal variety
- Demonstrates proficiency in syntax, including varying sentence structure

Elements, excerpts, and ideas borrowed with permission from <u>Assessing Outcomes and Improving Achievement:</u> <u>Tips and tools for Using Rubrics</u>, edited by Terrel L. Rhodes. Copyright 2010 by the Association of American Colleges and Universities.



Demonstrate effective written communication for an intended audience that follows genre/disciplinary conventions that reflect clarity, organization, and editing skills.

Criteria	Inadequate	Developing	Competent	Proficient
Demonstrates awareness of intended audience and creates a clear central message based on context	Not aware of intended audience or context resulting in no central message	Inadequate understanding of audience or context and presents an underdeveloped central message	Understands intended audience, purpose, and context to create a central message	Understands audience, purpose, and context and conveys a clear, engaging central message
Develops content based on genre or disciplinary conventions using evidence to support the purpose of writing	Not aware of genre or disciplinary writing conventions and lacks evidence or support	Inconsistently uses genre or disciplinary writing conventions without adequate evidence or support	Uses evidence and support throughout in accordance with the conventions of appropriate genre or disciplinary writing conventions	Uses consistent and detailed evidence and support throughout in accordance with the conventions of appropriate genre or disciplinary writing conventions
Produces writing that is appropriate to the writing situation and free of errors that impede understanding	Writing impedes understanding because of errors and inappropriateness to the writing situation	Uses language, style, and mechanics appropriate to the writing situation, but writing contains errors that impede understanding	Uses language, style, and mechanics appropriate to the writing situation with few errors, conveying understanding clearly and concisely	Uses sophisticated language, style, and mechanics appropriate to the writing situation and is virtually error free, conveying understanding clearly and concisely