

COMP7950 IT PROJECT SKILLS

Critical Reading

What is “Critical Reading?”

- Critical
 - Not intended to have a negative meaning in the context of “critical reading”
 - Exercising or involving **careful judgment** or **judicious evaluation** (Merriam-Webster’s online dictionary)
- Critical reading
 - Careful, active, reflective, analytic reading
 - Comprehend and make educated judgments about what you read

Passive vs. Active Reading

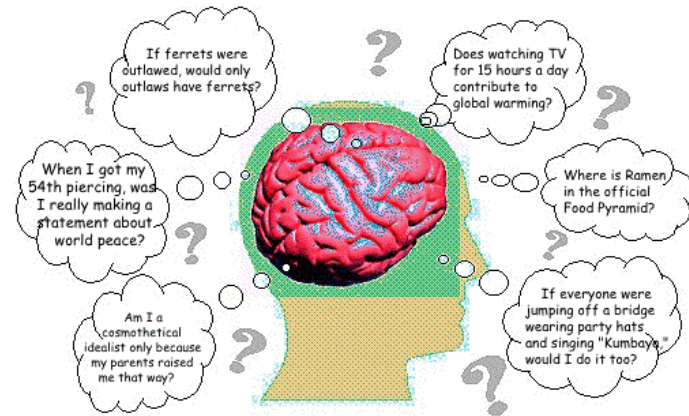
- Passive Reading: (4 traits)
 - Largely inactive process
 - Low motivation to examine the text critically or at an in-depth level
 - Important pieces of data and assumptions may be glossed over and missed
 - Data and assumptions are accepted at face value or are examined superficially, with little thought

Passive vs. Active Reading

- Active Reading
 - Involves **interacting with the text** and therefore requires significantly more energy than passive reading
- Active readers
 - Identify important pieces of data, the assumptions underlying arguments, and examines them critically
 - Rely on your personal experiences and knowledge of theory to analyze the text
- Critical reading ALWAYS involves active reading

Techniques of Critical Reading

- Previewing
- Writing While Reading
- Critical Reading (at least two times)
- Summarizing
- Forming a Critical Response



Previewing

- Form meaningful expectations about the reading
 - Create questions that you expect to be answered by reading the text and write them down
- Skimming
 - Read the title. Tap into what you know about the subject
 - Read the first and last paragraphs
 - Skim through, looking mainly at section headings
 - Get a handle on the article structure.
 - If there is information about the author, read that
 - → The goal is to obtain a general grasp of the text

Previewing

- Example questions for previewing
 - Length
 - Facts of publication
 - Currency or datedness, specialization of the publisher
 - Content cues
 - What do the title, abstract, headings, illustrations, and other features tell you?
 - Author
 - The author's other publications, interests, biases, and reputation in the field

Writing While Reading

- Margin
- Divided Page Method
- Reading Journal



Writing - Margin

- Mark, highlight, or underline parts of the text that you think are very important

Option 1 - Write a few words in the margin that capture the essence of your reaction

Option 2 – Write a few words that will help you to remember the passage. This is useful for learning definitions or parts of a theory.

Example - Margin

The first lesson of economics is scarcity: There is never enough of anything to fully satisfy all those who want it.

Basic contradiction between economics and politics

The first lesson of politics is to disregard the first lesson of economics. When politicians discover some group that is being vocal about not having as much as they want, the “solution” is to give them more. Where do politicians get this “more”? They rob Peter to pay Paul.

biblical reference?

After a while, of course, they discover that Peter doesn't have enough. Bursting with compassion, politicians rush to the rescue. Needless to say, they do not admit that robbing Peter to pay Paul was a dumb idea in the first place. On the contrary, they now rob Tom, Dick, and Harry to help Peter.

ironic and dismissive language

politicians = fools? or irresponsible

The latest chapter in this long-running saga is that politicians have now suddenly discovered that many college students graduate heavily in debt. To politicians it follows, as the night follows the day, that the government should come to their rescue with the taxpayers' money.

Divided Page Method

- On a separate piece of paper (in the reading journal), divide your page into two columns
- Label one column “text” (meaning from your reading) and the other “response” (meaning your response).
- Write down a part of the text you think is important in the “text” column and then write a reaction to it in the other column

Example – Divided Page Method

Text

Economics teaches lessons (1), and politics (politicians) and economics are at odds

Politicians don't accept econ. limits--always trying to satisfy "vocal" voters by giving them what they want (2)

"Robbing Peter to pay Paul" (2)--from the Bible (the Apostles)?

Politicians support student loan program with taxpayer funds bec. of "vocal" voters (2-4): another ex. of not accepting econ. limits

Responses

Is economics truer or more reliable than politics? More scientific?

Politicians do spend a lot of our money. Is that what they're elected to do, or do they go too far?

I support the loan program, too. Are politicians being irresponsible when they do? (Dismissive language underlined on copy.)

Reading

- Read the material for at least two times
- The two most important objectives are:
 1. Understand the content of the material
 2. Understand the material's structure
- Use your pen, pencil, or keyboard freely to question and comment on the text

Summarization

- Summarization: Pull out the main points of the text and write them down in your own words
- The summary's complexity and length will vary according to the complexity and length of the text you have read!
 - Your summary should not exceed one-fifth the length of the original



Summarization (continued)

- Writing a summary
 - Write the main idea of the entire passage
 - Identify sections within a passage to begin breaking it down
 - Write a one or two sentence summary for each section that captures its main points
 - Examine how the summaries you have written interact with one another
 - How do they connect? How are they the same? How are they different?
 - This will lead to a final summary that captures the main points of the entire passage you have read

Forming Your Critical Response

- In forming your critical response, you will now go beyond what the author has explicitly written to form **your impressions of the text**
- Analysis
- Interpretation
- Synthesis



Analysis

- Analysis is the separation of something into its parts or elements, which helps to examine them more closely
- To analyze reading, you can take at least these two approaches:
 - 1) Choose a question to guide analysis
 - 2) Look at the author's argument structure



Analysis (continued)

- Choose a question to guide analysis
 - E.g., Analyzing Thomas Sowell's "Student Loans", you might ask these questions:

Questions for analysis

What is Sowell's attitude toward politicians?

How does Sowell support his assertions about the loan program's costs?

Elements

References to politicians: content, words, tone.

Support: evidence, such as statistics and examples.

Analysis (continued)

- Examine the argument structure
 - Argument -- A connected series of statements, some of which are intended to provide support, justification or evidence for the truth of another statement
 - Central parts of an argument
 - Claim
 - Evidence
 - Assumptions

Analysis (continued)

- Claims

- Statements that you are asking others to accept
- Statements that require support by evidence
- E.g., “The college needs a new chemistry laboratory to replace the existing outdated lab”

- Evidence

- Demonstrates the validity of the claims
- E.g., The evidence to support the claim above about the need for a new chemistry lab might include the present lab’s age, an inventory of facilities and equipment, and the testimony of chemistry professors

Analysis (continued)

- Types of evidence
 - **Facts**: verifiable evidence
 - **Statistics**: facts expressed as numbers
 - **Examples**: specific instances of the point being made
 - **Expert Opinion**: judgments formed by authorities on a given subject



Exercise -- Matching the Types of Evidence

- Of those polled, 22 percent prefer a flat tax
- Many groups, such as the elderly and the disabled, would benefit from this policy
- Affirmative action is necessary to right past injustices, a point argued by Howard Glickstein, a past director of the US Commission on Civil Rights
- Poland is slightly smaller than New Mexico

Fact

Statistics



Examples

Expert Opinion

Exercise -- Matching the Types of Evidence

- Of those polled, 22 percent prefer a flat tax
 - Many groups, such as the elderly and the disabled, would benefit from this policy
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 - Poland is slightly smaller than New Mexico
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- The diagram consists of four orange labels on the right side: 'Fact', 'Statistics', 'Examples', and 'Expert Opinion'. Four blue lines connect these labels to the list items. The line from 'Fact' connects to 'Poland is slightly smaller than New Mexico'. The line from 'Statistics' connects to 'Of those polled, 22 percent prefer a flat tax'. The line from 'Examples' connects to 'Many groups, such as the elderly and the disabled, would benefit from this policy'. The line from 'Expert Opinion' connects to 'Affirmative action is necessary to right past injustices, a point argued by Howard Glickstein, a past director of the US Commission on Civil Rights'.
- Fact
- Statistics
- Examples
- Expert Opinion

Analysis (continued)

- To judge the reliability of evidence, look at :
 - Accuracy
 - Is the evidence drawn from trustworthy sources? Is the evidence cited an accurate representation of the source or is it distorted for some other purpose?
 - Relevance
 - Is the evidence relevant to the point the author is making? Does the evidence come from an authority on the relevant subject matter? Is the evidence current or outdated?
 - Representativeness
 - Is the evidence representative of the entire sample mentioned?
 - Adequacy
 - Is there enough evidence to support the claim?

Analysis (continued)

- Assumptions: underlying/unstated beliefs, opinions, principles, or inferences that connect evidence to claim

Claim: Grading system should not be used in college classes.

Evidence: Grades prevent cooperation in education.

Assumption: Cooperation is important

Claim: The college needs a new chemistry laboratory.

Evidence (in part): The testimony of chemistry professors.

Assumption: Chemistry professors are capable of evaluating the present lab's quality

Exercise:

Identifying Assumptions

- Moby Dick is a whale. So Moby Dick is a mammal.
- Giving students a fail grade will damage their self-confidence. Therefore, we should not fail students.
- There is nothing wrong talking on a mobile phone during lectures. Other students do it all the time.
- Killing an innocent person is wrong. Therefore, abortion is wrong.
- It should not be illegal for adults to smoke pot. After all, it does not harm anyone.

Analysis (continued)

- Logical Fallacies: Errors in reasoning
- Examples:
 - Red herring
 - Non sequitur
 - Affirming the consequent; Denying the antecedent
 - Bandwagon
 - Hasty generalization
- Learn to identify logical fallacies by visiting:
<http://www1.ca.nizkor.org/features/fallacies/index.html>

Analysis (continued)



- Examples of logical fallacies -- Red herring
 - A fallacy of distraction
 - A purposeful change in topic to distract from the original topic
 - Committed when an irrelevant topic is presented in order to divert attention from the original issue
 - It is as much a debate tactic as it is a logical fallacy

A campus speech code is essential to protect students, who already have enough problems coping with rising tuition.

You may think that he cheated on the test, but look at the poor little thing! How would he feel if you made him sit it again?

Analysis (continued)

- Examples of logical fallacies -- Non sequitur
 - Latin: “It does not follow”
 - Linking two or more ideas that in fact have no logical connection

If high school English were easier, fewer students would have trouble with the college English requirement.

Bill lives in a large building, so his apartment must be large.

Analysis (continued)

- Affirming the consequent

If A then B

B

Therefore, A

- Denying the antecedent

If A then B

Not A

Therefore, Not B

If I am in Beijing, then I am in China. I am in China, thus, I am in Beijing.

If I am in Beijing then I am in China. I am not in China, thus, I am not in Beijing.

If I am in Beijing then I am in China. I am not in Beijing, thus, I am not in China.

Analysis (continued)

- Examples of logical fallacies – Bandwagon
 - Inviting readers to accept a claim because everyone else does

As everyone knows, marijuana use leads to heroin addiction.

Everyone is selfish; everyone is doing what he believes will make himself happier. The recognition of that can take most of the sting out of accusations that you're being "selfish." Why should you feel guilty for seeking your own happiness when that's what everyone else is doing, too?

Analysis (continued)

- Examples of logical fallacies – Hasty generalization
 - Occurs when an arguer inaccurately generalizes based on a single case or example
 - Drawing a conclusion about a population based on a sample that is not large enough

My grandmother smoked cigarettes and lived to be 90

→ Smoking must be harmless

→ All this talk about lung cancer and early deaths is just scare tactics

It is disturbing that several of the youths who shot up schools were users of violent video games. Obviously, these games can breed violence, and they should be banned.

Interpretation

- After breaking down the text into its components and examining them, you also need to interpret the meaning or significance of the elements and of the whole
- Interpretation usually requires you to infer the author's assumptions, opinions or beliefs about what is or what could or should be
 - Infer means to draw a conclusion based on evidence

Interpretation (continued)

- Example – Analyzing Sowell’s attitude toward politicians
 - Sowell says that they “disregard the first lesson of economics” (paragraph 2), which implies that they ignore important principles. Sowell also says that politicians “rob Peter to pay Paul,” are “bursting with compassion,” “do not admit . . . a dumb idea,” are characters in a “long-running saga,” and arrive at the solution of spending taxes “as the night follows the day”—that is, inevitably (paragraphs 2–4).
 - From these statements and others, you can infer the following:

Sowell assumes that politicians become compassionate when a cause is loud and popular, not necessarily just, and they act irresponsibly by trying to solve the problem with other people’s (taxpayers’) money.

Synthesis

- Now that you have broken down the text into its parts, analyzed them, and interpreted it all, you should make new connections with what you know
 - Drawing conclusions about relationships and implications
- Ask yourself again: What are the main points of this text? Were my expectations for this article met? Overall, what can I conclude from this text?

Synthesis (continued)

The statement below about Thomas Sowell's essay "Student Loans" connects his assumptions about politicians to a larger idea also implied by the essay:

Conclusion Sowell's view that politicians are irresponsible with taxpayers' money reflects his overall opinion that the laws of economics, not politics, should drive government.

References

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