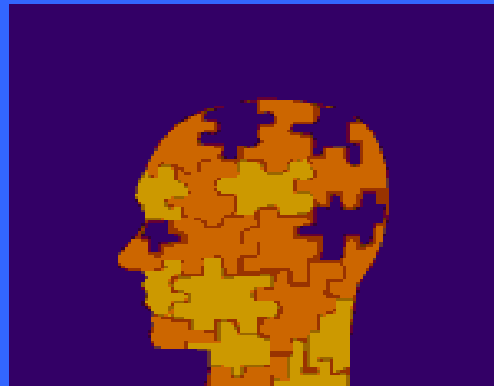


Building a Logical Argument



Putting Critical Thinking Into Words

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Not this kind of argument...



...this kind of argument



■ Argument: **pieces of reasoning** organized in **logical** and **compelling** manner to **persuade** an audience.

•Argumentative writing (aka persuasive writing) **moves the reader to action or belief.**



When do you use argument?



- Job application letter
 - Business letters
 - Essays
 - Editorials
 - Home study evaluations
 - Narratives explaining treatment decisions
 - Letters to the editor
 - Critical reviews
 - Grant applications
 - Job evaluations
 - Letters of reference
 - Letters of complaint
 - Anytime you want to make a point
- And talking your way out of a traffic ticket



Why this workshop?

- A frequent criticism of student papers is that the writing doesn't show **critical thinking skills**
 - the content is **poorly organized**
 - the paper is just a **string of facts**
 - the writer tries to rely on “**quote bombs**”
 - the writer's **voice** is missing from the paper





Argument's Purpose

- shows the reader that what **you have to say** (your voice, your opinion, your assessment of the information) is correct, intelligent, and rational
- intends to persuade, convince, sway, compel the reader to **consider your position as valid and rational**
- establishes that your **thought process** (i.e., critical thinking) is logical, makes sense, and is appropriate
- **reveals** your synthesis or critical thinking process to the reader

What is an argument?

- An argument is a two-part process:

- 1. Establishing a claim**

- That is, stating your position, proposition, hypothesis, thesis

- 2. Proving that claim** with the use of logical reasoning, examples, and research.

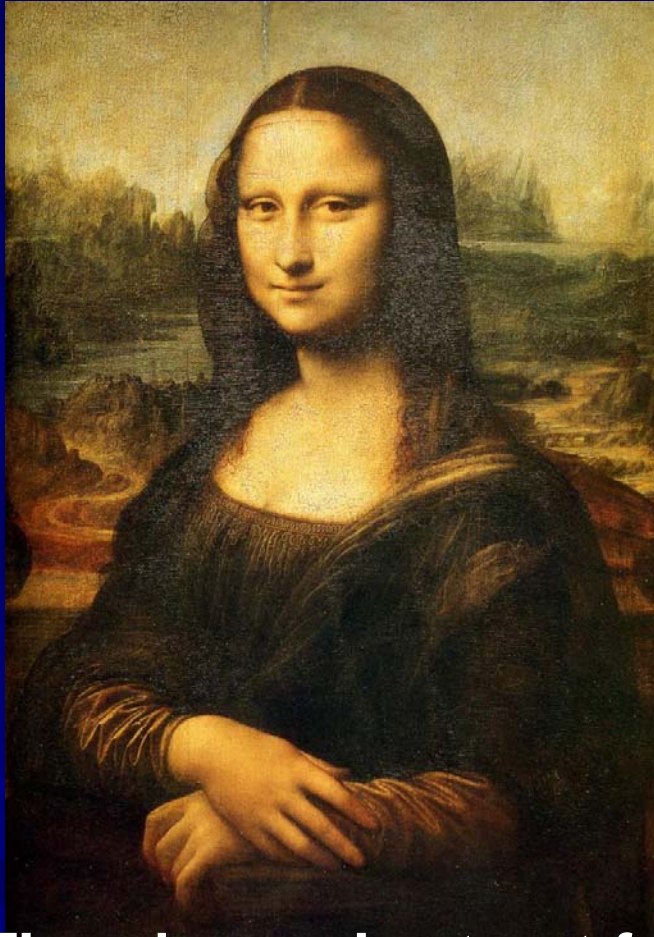
- That is, providing support for your position

The payoff: Critical, logical thinking
becomes a habit of mind.

The value of learning to construct arguments
is that

- you learn to carefully **examine** your thoughts, actions, attitudes, in a **systematic way**
- you learn how to **evaluate conflicting claims** and judge evidence and methods of evaluation or investigation
- you learn how to **clarify** your thoughts and **better articulate** your position honestly and accurately
- you learn how to give **careful and respectful consideration** to the ideas of radically opposing viewpoints

Don't try a paint-by-numbers approach for argument



There's no short-cut formula to critical thinking or organizing your thoughts.

Basic Terms

- Argument: set of statements or claims, one of which is being *argued for* on the basis of the other (i.e., being *argued from*)
 - To **argue for** a statement is to present reasons for thinking the claim is true.
 - To **argue from** a statement is to present that claim as a reason for thinking another statement is true.
 - Ex. Based on the theory undergirding cognitive behavioral therapy, a treatment plan for Mitra should include psychodrama role-plays in which she takes the role of her attacker.



Writing Context

- A need is **not being met**
- A person treated **unfairly, social injustice**
- An important **concept is misunderstood**
- Outdated policy needs to be **reexamined**

Strong arguments respond effectively to such **writing contexts.**

Preparing a **situation statement** helps you bring the writing context into focus early.

Argument

- **Does Not** mean winning at all costs or taking sides
- An argument can claim that one position is superior to another, or it can present both sides even-handedly
 - You just have to support your argument with evidence.
- **2 basic forms of argument:**
 - **Aristotelian** and Rogerian



Aristotelian = Adversarial

- To **confirm a position** or hypothesis or
- To **refute** an existing argument
- Tries to **persuade** the reader to accept a particular point of view
- **Relies on logic**, appeals to reader's rational thinking,
- Provides **empirical evidence** to persuade reader to change attitudes, beliefs, or actions
- The majority of academic writing uses the Aristotelian argument approach.



Rogerian = Consensus Building

- Goal is to develop consensus among readers (i.e., winning situation for all)
- Minimize threat & establish trust
- Analysis of viewpoints is objectively worded - writer demonstrates understanding of each position and reasons for believing it
- Points out common characteristics, shared goals and values
- Finally, the writer proposes a resolution that recognizes the interests of all interested parties.
- Rogerian approach to argument is more likely to be used in practice settings rather than academic setting.

Keep your audience in mind...

- Your audience is part of the context of your argument...
- Helpful to think of reader as a **skeptic** who
 - **demands** strong evidence,
 - **unwilling** to give the benefit of doubt
 - **resistant** to your position
 - **disinclined** to assume
 - **loath to** sort out facts



This is the person you are trying to convince....

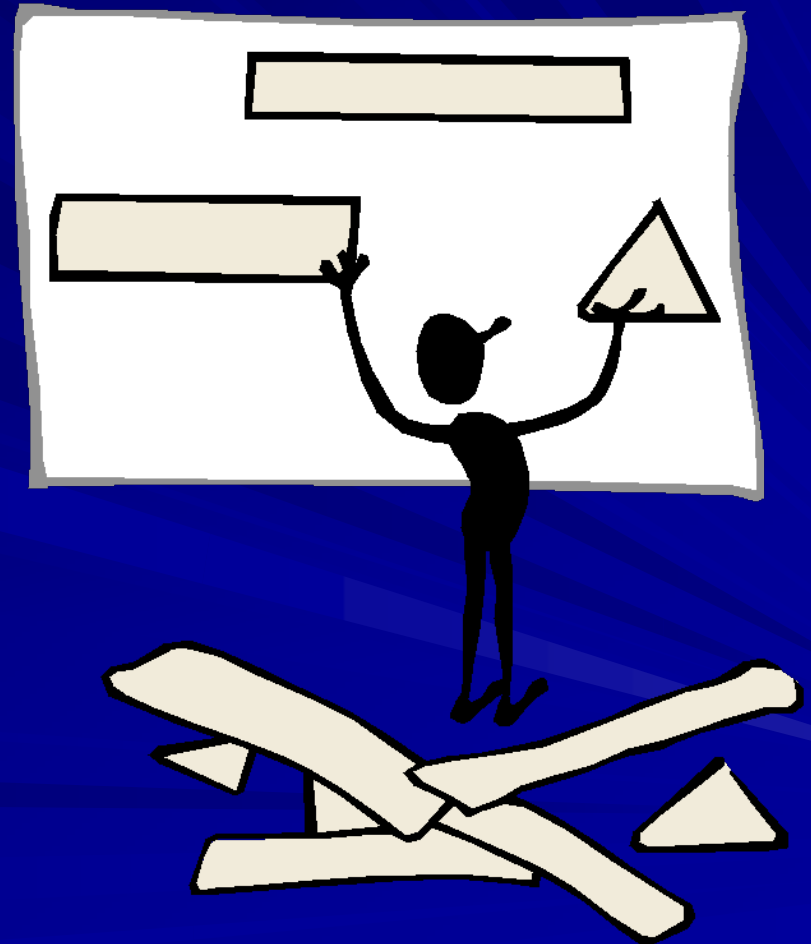


- Review your argument and all your supports by asking the question this reader asks...

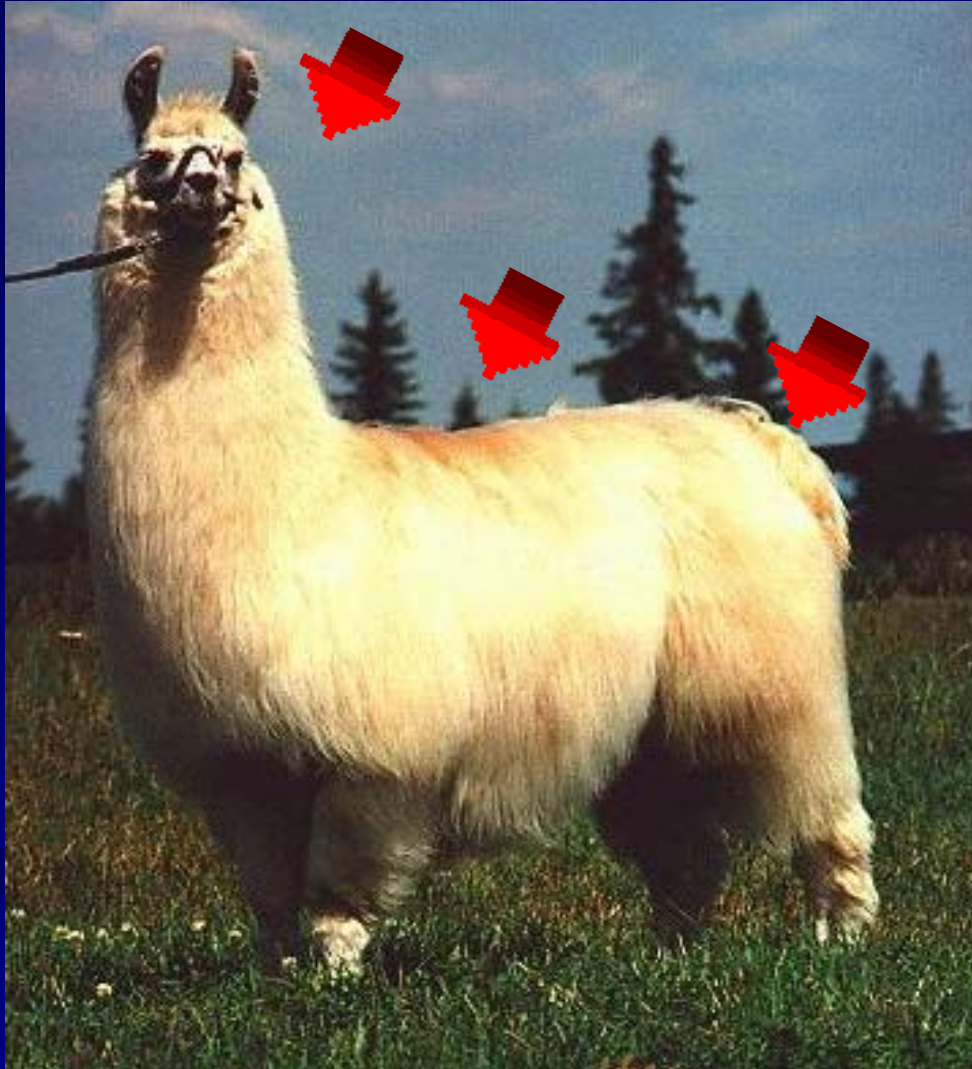
SO WHAT?

Why is organization important in building an argument?

- **Structure** guides your reader through your reasoning process
- Offers a **clear explanation** of each argued point
- Demonstrates **your credibility** as a critical thinker



Step 1. Organization



A whole is
that which
has a
beginning,
middle,
and ending.

-

Aristotle

Failure to Organize...



... results in confused, lost readers



Determine Your Organization

■ **Suggested Organization for a Classic Argument**

- Introduction
- State your case
- State your proposition
- Refute counter arguments
- Substantiation and Proof
- Conclusion

Classic Argument (cont.)

- **Introduction:** Give the context and background of your issue. Establish style, tone, and significance of your issue.
- **State your Case:** Clarify your issue here. Give any necessary background for understanding the issues. Define any important terms or conditions.

Classic Argument (cont.)

- **Proposition:** State your central proposition. Be sure that your hook (thesis) presents an issue that is open to debate. Present the subtopics or supportive points to forecast your argument for your reader.
- **Refute:** Analyze the opposition's argument and summarize it; refute or address the points; point out faulty reasoning and inappropriate appeals.

Classic Argument (cont.)

- **Substantiation and Proof:** Present and develop your own case. Carefully plan your disclosure; avoid logical fallacies. Rely primarily on reasoning for your appeal and use emotional appeals carefully; use examples, facts, experts, and statistics. Develop your argument using the appropriate prose strategy, e.g., causal analysis, comparison, analogies, definitions.
- **Conclusion:** Conclude with conviction. Review your main points and strongly re-state your claims. Make a strong plea for action, or restate your proposition as logical conclusion based on the evidence.

Where should I place the argument?

Your argument should be infused throughout your paper – from title to conclusion.

Title: What's Your Point?

- Title introduces the **topic** of discussion to the reader
- Clues the reader to **your position**
- **Primes** the reader's mental pump
 - Keep title under 15 words
 - Try to reader's grab attention



Example: Paper by Dr. Susan Parish

- Paper on assistance programs (e.g., TANF) that offer inadequate financial support for low-income single mothers raising adolescents with disabilities. Most of these mothers had to balance work with care giving responsibilities.
- **Bad Choice:** Working Mothers' Challenges
- **Better Choice:** TANF* Provides Inadequate Support for Mothers of Children with Disabilities
- **Even Better Choice: Juggling and Struggling: A Preliminary Work-Life Study of Low-Income Mothers of Adolescents with Disabilities**

* Avoid using abbreviations in titles

Create a Title

- Suppose you have written a paper offering an evaluation of the effectiveness of the *Scared Straight* teen intervention program.
- Which title best discloses the argument?
 - A Look at the Scared Straight Program
 - Scared Straight: Effective for Teens?
 - Fear-based Programs Fail to Foster Long-Term Behavioral Changes
 - The Fear Factor: Is Intimidation the Best Tool for Behavioral Change?



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Introduction / Background

- Overview
- Familiarizes reader
 - with the problem (issue),
 - current status (policy, programs, approach)
 - the purpose (thesis) of the paper
- **Document** – Don't make unsubstantiated generalizations or assumptions
- Offers a **plan** for the paper's argument
- **Typically** concludes with thesis statement

Thesis Statement

- The **most important sentence** in your paper
- Reveals **main thrust** of the paper: What are you trying to **prove**?
- **IS NOT** a statement of fact
- **IS** a debatable claim
 - One that has to be proven
 - One that defines boundaries (scope) of paper
- Consider a working proposition at first

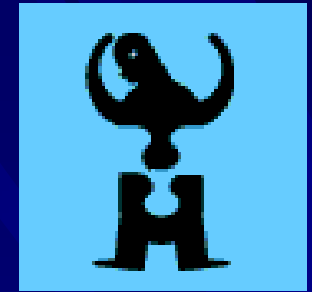
What to look for in a thesis statement



- States your argument as a **position that has to be proven**
- A **statement of fact** cannot be argued; therefore, a fact can't be your thesis
- A thesis **infers** or **implies** that a particular position will be presented with evidence to convince the reader of the truth of that position.
- **Indicator words:** Because, Ought, Should, Given that.., Therefore, If...,then...



Which is the better thesis statement?



- This paper presents the results of my research on the use of electronic surveillance in the workplace.
- Although employers currently have the legal right to monitor workers' e-mail and voice mail messages, this practice can have serious negative effects on workplace morale.



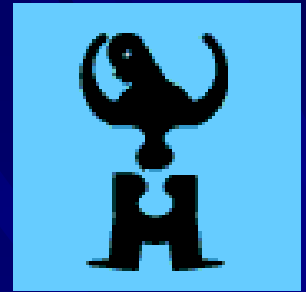
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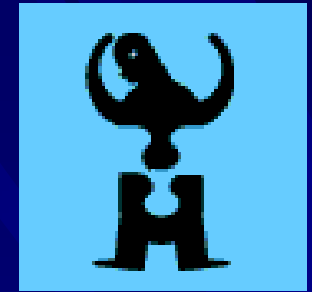
✓ **Although employers currently have the legal right to monitor workers' e-mail and voice mail messages, this practice can have serious negative effects on workplace morale.**

Which is the better thesis statement?



- Judges should have discretion in sentencing drug offenders so that those convicted of nonviolent or first-time offenses do not automatically go to prison.
- Currently, judges have little, if any, discretion in sentencing drug offenders, so that even nonviolent or first-time offenders automatically go to prison.

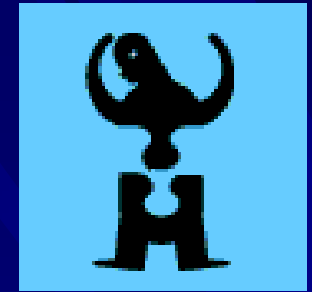
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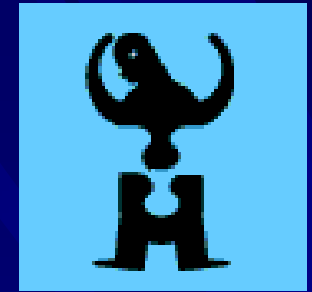
Which is the better thesis statement?



- Because air pollution is a serious global concern, many countries have implemented a variety of plans to begin solving the problem.
- Current research has suggested that zero-emission vehicles are not a feasible solution to the problem of increasing levels of air pollution in America's largest cities.



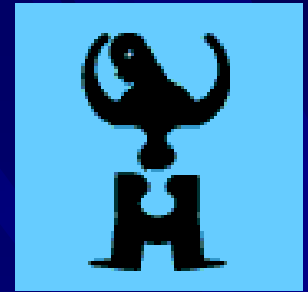
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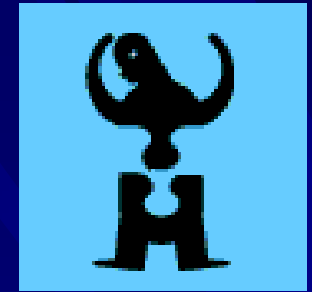
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Which is the better thesis statement?



- Because it has become outdated, the Electoral College should be replaced with a system that allows the U.S. president to be elected by direct popular vote.
- Rather than voting for a presidential candidate, U.S. voters choose their states' Electoral College representatives, who actually vote for president; in most states, all the electoral votes go to the candidate who wins the popular vote, regardless of how close the outcome.

Which is the better thesis statement?




- ✓ **Because it has become outdated, the Electoral College should be replaced with a system that allows the U.S. president to be elected by direct popular vote.**
- Rather than voting for a presidential candidate, U.S. voters choose their states' Electoral College representatives, who actually vote for president; in most states, all the electoral votes go to the candidate who wins the popular vote, regardless of how close the outcome.

Body of the Paper = Body of the Argument

- Each paragraph builds on the previous one and leads to the next = **Coherence**
- Each paragraph presents **1 idea**
 - a **micro-argument** that contributes to the **macro-argument**

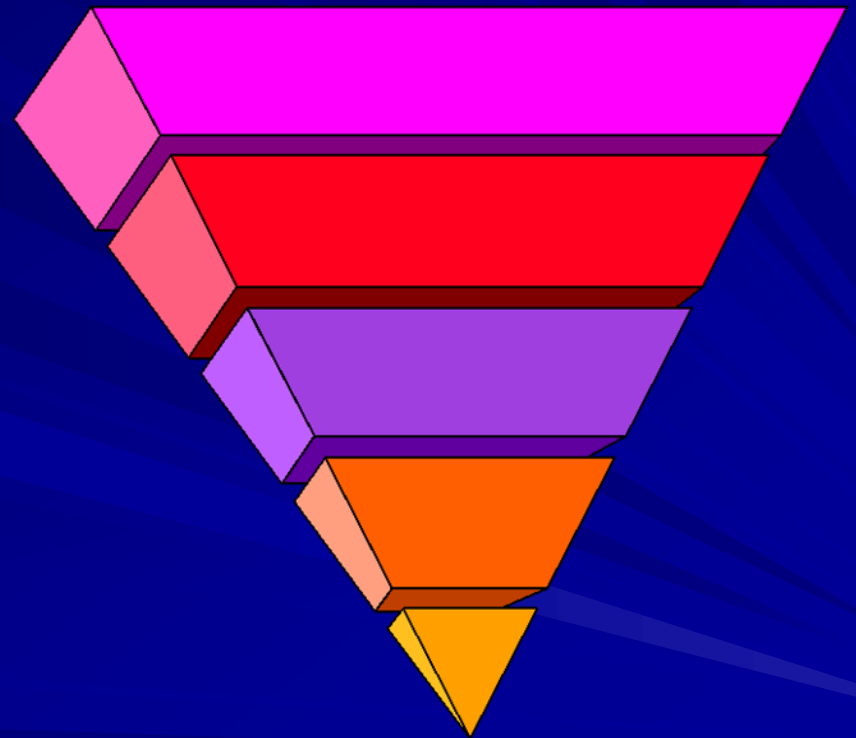


Developing your argument

- Use the empirical evidence to support your claim
- Argue your case from the authority of your evidence 
- In your **notes**, list strengths and weaknesses of each supporting point
 - **List in order of importance** for each point
 - select top **3 or 5** supporting points
 - then develop content that support strengths, or mediates (explains) the weakness

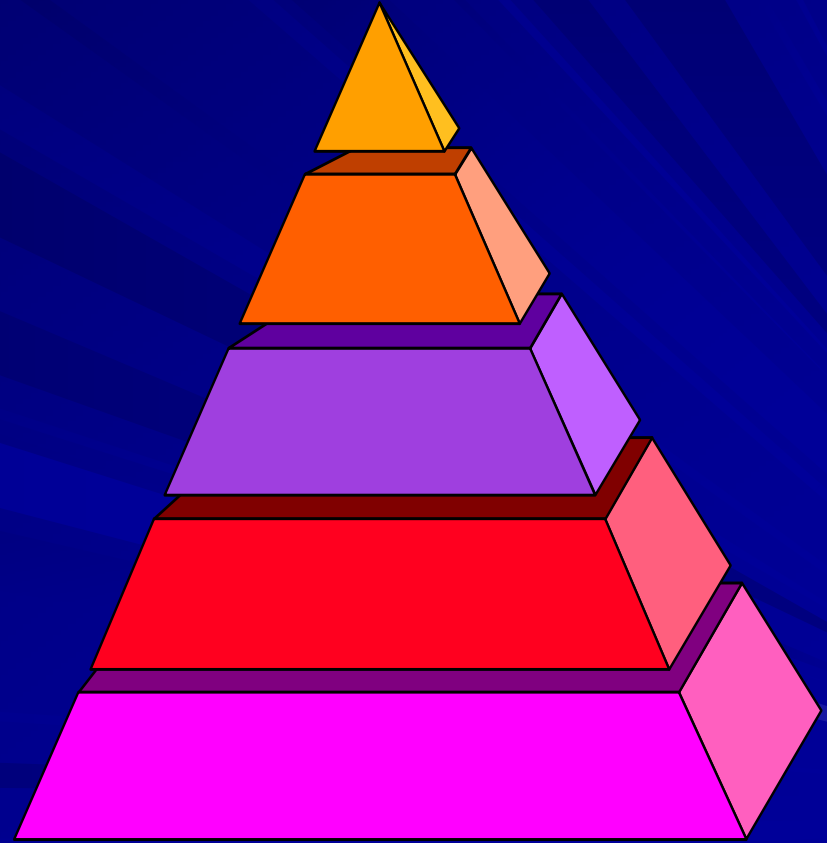
Organizing an Argument

- Build from general, broad overview to thesis, to specific information and examples
- Most important claims laid out in first part of paper.



Other Organizational Strategies

- Weakest claim to strongest claim* (don't reverse –end on a whimper)
- All the pros, then counterargument
 - – ends on weak point
- Sandwich pros & cons
 - If not handled well = ping-pong match
- **Layered disclosure**



Layered Disclosure

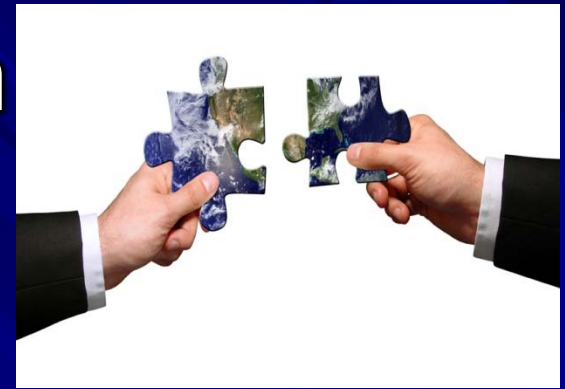
- Presents **2nd** strongest point first
 - then 3rd strongest
 - then 4th strongest
- Finally, presents **strongest point last**
 - Potentially, gives most important points more emphatic position
 - Argument ends with a punch
 - Helpful structure in overcoming initial reader resistance
 - **Danger** that reader won't hang in to get to last point.
- Value of strategy rests in **relative strength** of your supporting points.

¶ Topic Sentence = Micro Argument

- Body paragraphs build on the claim made in the thesis statement
- Organize the body paragraphs with use of topic sentence that illustrates the main idea for each paragraph.
- Early paragraphs should offer historical view or recent developments regarding the topic
 - helps bring your reader up to speed with the issue or complexity of the topic.



Incorporating Research into Body Paragraphs



- ¶ Topic Sentence = Micro Argument
- Evidence used to support your claim, to shore up your position
- **HOWEVER**, you must **explicitly** state **how, why, where, when**, and in **what way** the data supports your position.
 - clearly state the relationship of the research to your argument.
 - **A string of facts does not equal an argument.**

Research → Supporting Evidence

- **Your** synthesis of research is essential!
- How does one piece of research **relate** to the other?
- How does each piece of research **support** your argument?
 - What **aspect** of your argument is supported?
 - Does any piece of research call any aspect of your argument into **question**?
- Explicitly lay out your thought process
 - **lead** the reader through the evidence



Anticipate Opposition

■ To rebut opposing argument, you need to question the evidence and conclusions drawn from that evidence.



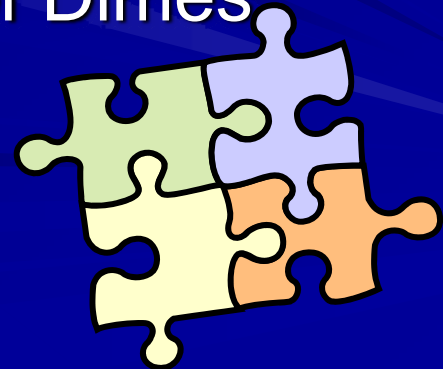
- How does the opposition use that evidence?
 - How does the opposition build a rational explanation with the evidence?
 - What **conclusion** does the opposition draw from the evidence?

Evaluate Strength & Weakness

- **Expand** understanding of each supporting point
- **Evaluate** how you can support each point
 - by providing **evidence**, giving **details**, adding an **example**, or using **reasoning**
 - 1. **Providing evidence**: Souse and Suess (2001) demonstrated that low birth weight resulted from a combination of factors such as maternal nutrition, physical and emotional stress, access to prenatal care, and genetics.

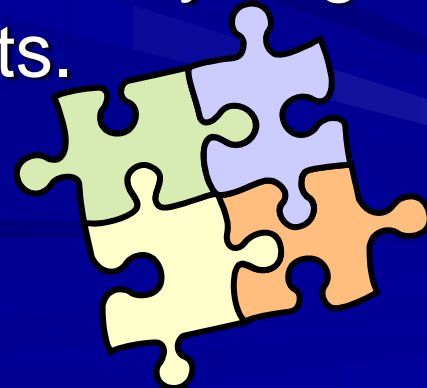
Evaluate how you can support each point

2. **Giving details:** The association between low birth weight infants and maternal age reported by Gus and Freak (2007) was consistent with statistics reported for North Carolina. These data showed mothers younger than 16 years were 72% more likely to give birth to an underweight, preterm infant (March of Dimes 2008).



Evaluate how you can support each point

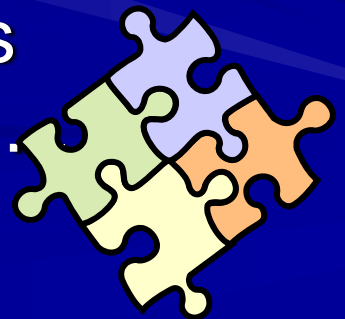
3. **Adding an example:** The quality of maternal nutrition is a primary factor influencing the birth weight of infants. For example, Souse and Suess (2008) found that adolescent mothers who consumed more than half of their daily calories as high-carbohydrate fast-food items were 4 times more likely to give birth to low birth weight infants.





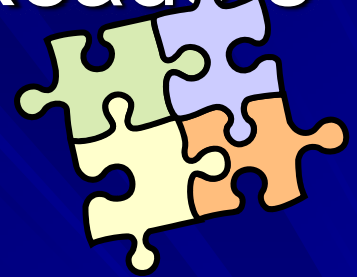
Evaluate how you can support each point

4. **Using reasoning** : Therefore, based on the evidence regarding the quality of maternal nutrition and the racial disparities that exist in the quality of health care available to minority mothers, prenatal clinics should expand their programs to include nutritional assessments and education. Nutrition screenings could prompt early intervention that might not only prevent low birth weight but also prevent birth defects caused by folic acid deficiency, such as ..





Techniques for Appealing to Readers



■ Reason

- state your claim and support it with concrete, specific facts.
- appeal to rational thinking
- **formal reasoning uses either inductive or deductive reasoning**
 - inductive - from specific examples to general conclusion
 - deductive - from general law, theory, or principle to specific conclusion



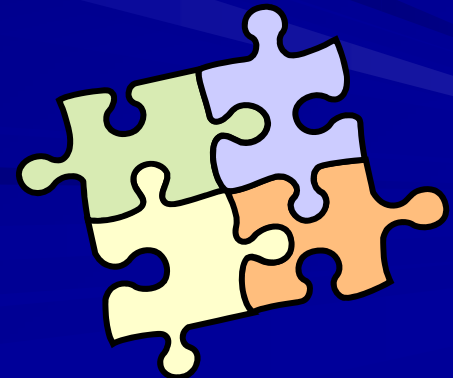
Two Types of Argument

■ Inductive argument:

- I've observed that every time I kick the ball up, it comes back down. Therefore, I think that from now on when I kick the ball up, it will also come down.

■ Deductive argument:

- Newton's Law of Gravity states that everything that goes up must come down. So, when you kick the ball in the air, it will come down.



Inductive argument:

- Using a nationally representative sample of high-school teachers, our study showed that a majority of teachers in our nation's high schools are concerned about school safety.



Deductive argument

■ *Syllogism (long form)*

Aggressive marketers speak of invasive data collection as simply "getting to know the customer"; one such corporation is WhizCo that is actively assembling a database of private client information. Despite their claim of only being interested in providing better customer service, consumer advocates should be concerned that WhizCo will not adequately protect customer privacy.

Specific to General

- **Josh Q. is a 15-year-old** student in a large suburban high school of 3,700 students. Although Josh has an IQ of 146, he is failing six classes and has frequently mentioned dropping out of school. Similar to many of his peers, Josh not only feels no affinity for his school community, but has expressed a great deal of anger focused at both his peers and the school administration. Increasingly, U.S. schools are faced with **serving a large number of disenfranchised students** whose isolation and anger remain unrecognized until they erupt in acts of school violence.

General to Specific

- Recent data from the **National Survey of Youth Behavior** demonstrated a significant increase in the rate of school dropout **among Asian American adolescents raised in middle-class suburban homes**. Although earlier generations of Asian American families emphasized children's educational attainment, it appears that a significant shift in values has occurred within the past 20 years. Whereas previous generations made education the central focus of all family activities, today's Asian American parents are less willing to pursue life with a singular focus. **For example**, both of **Samuel Wii's** parents worked two jobs to pay for his supplementary education in *Juku* (after school and weekend intensive study courses). However, now that he is the father of two middle-school students, Wii reported that he values a balance of activities for his children. Thus, Wii encouraged his children to join a Saturday soccer team rather than enroll in *Juku*.



Counterargument

- Inclusion is important to building a convincing argument
- Establishes your credibility
 - shows you investigated multiple dimensions of the issue & made an informed decision

How to counter argue effectively

- Disarm the opposition
- Concede to some points, **if valid**, then show how your claim is superior





Escalate the argument -It's a matter of mind over what matters

- The human brain gives greater emphasis to “the last thing.”
 - whether the last part of a statement, or the last point made in a paper
 - the last thing considered is given greater significance
- Therefore, **conclusion** should **strongly restate** your position.
 - Review main points and tell reader what action you want them to take.
 - Address and resolve main points from your introduction.

Conclusion

- You may choose to reiterate a call to action (advocacy paper) or to speculate on the future of your topic (implications for future research or implications for practice) as appropriate.
- **DO NOT** raise new claims or introduce new topics in your conclusion



Example:

- **Introduction:** A critical gap exists in the current delivery system of mental health care for homeless persons. Given this critical gap, social work research should step-up efforts to promote public policy that would increase accessibility ...
- **Conclusion:** Therefore, researchers should give greater attention to development of public policy that will increase homeless persons' access to mental health care as a first step in addressing the critical gap in the current delivery system ...

...and all the pieces fit together

