Lecture 1

IAQS | INSTITUTE OF ACTUARIAL & QUANTITATIVE STUDIES

Class: FY BSc

Subject : Problem solving & Critical thinking

Subject Code: PUSASQF106

Chapter: Unit 3 Chp 1

Chapter Name: Analysing Arguments: Identifying Strengths and Weaknesses

Today’s Agenda

1.1 What is an argument?

An argument is the position or claim that the writer is putting forward. An argument can be recognised via language, evidence, and text comparisons. An argument will assume an audience's awareness of the topic and also consider their assumptions, prior knowledge and interest.

1.1 Steps to analysing arguments

1) Read the argument and instructions carefully.
2) Identify the argument's claims, conclusions and underlying assumptions. Evaluate their quality.
3) Think of as many alternative explanations and counterexamples as you can.
4) Think of what specific additional evidence might weaken or lend support to the claims.
5) Ask yourself what changes in the argument would make the reasoning more sound.

1.1 Types of argument structures

There are various types of argument structures. Most arguments fall into one of two primary categories—inductive and deductive—based on the type of reasoning they present. Inductive reasoning refers to the act of drawing broad conclusions from evidence gathered through specific scenarios.
Comparatively, deductive reasoning refers to the act of supporting a larger conclusion with evidence from specific scenarios. While some arguments consist of both inductive and deductive reasoning, scientists and researchers often use the latter to present their observations to prove or disprove a theory with certainty.
In general, for an argument to be persuasive, it must follow an organizational format that an audience can follow and discern with ease. With this in mind, there are three main types of structures to consider when forming an argument:

https://www.indeed.com/career-advice/career-development/how-to-structure-an-argument

1.1 Types of argument structures

Toulmin method

The Toulmin method is an argumentative structure first outlined by author Stephen Toulmin. This method focuses on supporting the various key claims of an argument using factual evidence. The Toulmin method uses the following structure:

- **Claim:** Explanation of an overall claim or basis of the argument
- **Grounds:** Presentation of evidence to support the above claim
- **Bridge:** Discussion of evidence and connection of how it supports your claim
- **Foundation:** Presentation of additional logic or reasoning that supports the connections from the bridge
- **Counterclaim:** Anticipation and discussion of opposing viewpoints
- **Rebuttal:** Response to refute counterclaim through incorporating evidence

1.1 Types of argument structures

Classical method

The Greek philosopher, Aristotle, originally outlined the classical method and others like Roman rhetoricians Cicero and Quintilian later developed it. This method focuses on the clear definition of an argument and presentation of evidence that leads an audience to draw conclusions seamlessly. The classical method uses the following structure:

- **Introduction:** Presentation of an issue and explanation of its importance
- **Background:** Discussion of key information that provides historical context of the issue to further the audience's understanding
- **Proposition:** Statement of argumentative points and primary claim
- **Proof:** Presentation of reasoning, evidence and connections that support your claim
- **Refutation:** Anticipation of and response to counterclaims that disagree with your proposition
- **Conclusion:** Summarization of claim and primary evidence points that support your claim. Appeal to the audience's particular emotions, values or perspective

1.1 Types of argument structures

Rogerian method

Composition scholars adapted the Rogerian method using the work of American psychologist Carl Rogers. This method is popular for the discussion of controversial issues and focuses on identifying a neutral perspective or compromise that individuals of opposing perspectives can agree upon. The Rogerian method uses the following structure:

- **Introduction:** Presentation of an issue using objectivity
- **Opposing view:** Explanation of view opposing your primary position in an unbiased manner
- **Statement of validity:** Acknowledgment of opposing view's validity within a specific context
- **Position:** Statement of your primary position
- **Context:** Explanation of various scenarios in which your position possesses validity, especially within certain contexts
- **Benefits:** Discussion of why an audience would benefit from accepting your position without dismissing the opposing perspective

1.1 How To Structure An Effective Argument

1. Introduce the problem
2. Present your claim
3. Support your claim
4. Acknowledge the opposing side of the argument
5. Acknowledge the opposing side of the argument