

Skills Resource

Understanding Economics requires that you interpret, analyze, and apply information. Use this general resource first to review the skills you will need and then—as you venture further into *Understanding Economics*—for direction and helpful hints.

The Basics of Critical Thinking

Information, ideas, and opinions abound. Whether you are interpreting and analyzing the work of others or developing your own observations, opinions, and arguments, you must use critical thinking skills. Critical thinking involves precise meaning, logic, and consideration of values and perspectives. Evaluate your work and that of others against these basics.

PRECISE MEANING

The rule “Say what you mean and mean what you say” can be applied to all subjects and topics. Keep in mind these questions: What don’t I understand? Can I paraphrase this? What really is the point? What might confuse the audience? Where is the meaning clear? Where is it murky?

See that writers are using terminology precisely or define terms in their writing. In your own work, use the standard definition that is appropriate to the subject or discipline. If the meaning might be unclear, clarify it.

Statistics can be a particular trouble-spot. With every statistic you use or come across, ask yourself the following: What information is this giving? What definitions are used? What is the basis of this information (for example, a broad study or a small sample)? How is this relevant to the discussion? How have the numbers been treated? What other factors should be taken into account? What relationships can I see?

See that a statistic means what you think it does and use it with care. For example:

- **A measure** differs from an **indicator**. For example, the *measure* of gross domestic product *indicates* living standards. The *measure* of body temperature *indicates* physical health.
- **Average** differs from **median**. An average (sometimes known as an arithmetic mean) is the sum of all the values divided by the number of values. The median is the middle value in any group of values. For three hourly wages (of \$5, \$10, and \$30), the average wage is \$15, but the median wage is \$10.
- **Nominal** figures differ from **real** figures. Nominal dollar values make no adjustments for changes in prices over the years. However, real figures are adjusted using a **base year**, which gives a point of comparison. For example, if your nominal income has doubled since the base year at the same time as prices have doubled, your real income has remained the same.
- Percentages sometimes cause confusion. If you are to calculate the percentage difference between two numbers, determine the base from which the percentage is

calculated, then divide the difference between the two numbers by the base number and multiply by 100 percent. For example, if a price increases from \$1 to \$3, it has risen by 200 percent $[(\$3 - \$1) \div \$1] \times 100\%$. In this case, \$1 is the base number. If, on the other hand, a price decreases from \$3 to \$1, the base number is now \$3. The percentage fall in price therefore, is 67 percent $[(\$1 - \$3) \div \$3] \times 100\%$.

- Many statistics are **rounded**—for example, to the nearest whole number or nearest thousand.

LOGIC

Logical arguments move from one point to the next in a reasonable and orderly way. Reasons should support each point, and the points should follow some order, often a cause-and-effect order. The **scientific method**, which we outline in Chapter 1, gives one model for a logical approach. In the case of a written or spoken argument, we should be able to answer the following questions: What points does the author make? How does the author support each point? How do the points connect, and are the connections valid? What is the main conclusion?

Read your own work and that of others carefully for the following problems:

- **Personal arguments.** A personal argument attacks an opponent rather than the opponent's reasoning. Personal arguments often appear when economic issues are debated in the political arena. For example, a government's expansionary fiscal policy might be disparaged as being the work of "doctrinaire socialists" rather than being criticized on its own merits.
- **False analogy.** Arguments can often be supported with analogies, or comparisons between two different things. For example, the flow of incomes and spending in an economy is sometimes likened to a circular flow of water. However, one extension of this analogy—that the flow of incomes and spending in an economy would stop unless propelled by some outside force—is false. Each analogy must be checked against the facts.
- **False causation.** Simply because two trends take place at the same time, it does not mean that one trend is causing the other. For example, a trend towards more students staying in school and a trend towards more part-time jobs does not mean that the first necessarily causes the second or vice versa. In each case, examine the situation to see how the factors are related, if at all.
- **Fallacy of composition.** What is true for one component of a group—say, an individual—is not necessarily true for the group as a whole. For example, just because higher savings benefit an individual household, it does not mean that they necessarily help the entire economy, since a rise in savings can cause spending and production in an economy to fall. Examine each generalization carefully.

CONSIDERATION

Our experiences and background have implications for how we see the world; they inform our perspectives. Because many of the issues explored in *Understanding Economics* deal with how we think things "ought" to be, they bring up questions of values—for example, how you value extra leisure time against more possessions. The key to critical thinking is recognizing and examining our perspectives (including our assumptions) and

considering the perspectives of others. A blinkered view of the world—one that does not consider the perspectives of others—makes for a poor, unbalanced argument.

Examine your own work and that of others carefully for the following:

- **Opinions.** Are any opinions stated clearly, explained, and supported? Are any not stated but apparent? Remember that opinions are not the sign of dubious critical thinking. In fact, explicit opinions are preferable to unexamined perspectives in most cases.
- **Statement of specific assumptions.** If assumptions are not clearly identified, can they be inferred? Are the stated assumptions overly simplistic or irrelevant? For example, in an argument about product demand, it is too simplistic to assume that the number of units bought stays constant, while detailed assumptions concerning how a product is supplied are irrelevant.
- **Emotional language.** While emotional language may suit some persuasive arguments (for example, political speeches, letters to the editor, advertising), it can mask lack of evidence or may suggest a biased view. Emotional language—which usually lays blame—is especially common in the popular media. If you are faced with emotional language, try to decide whether an argument would be equally effective without it. Also, keep in mind that emotional language does not always signify that an argument is unreasonable; arguments expressed in reasonable language can also be flawed.
- **Distortions of fact, or faulty logic.** Double-check for misrepresentations and errors in logic in your reading.

Finally, ask yourself whether alternative perspectives have been addressed. If not, why not? Keep in mind that arguments that support the current state of things are not necessarily more objective than those that do not.

To summarize the basics of critical thinking, consider the task of **forecasting**. Suppose you are asked to use a current economic statistic that is in the news to try to forecast future values. To make a prediction concerning the prime interest rate, for example, you must define precisely the problem and terminology, decide which factors affecting interest rates will be most crucial in the near future, and try to weigh the importance of each of these factors in affecting the statistic's current value. Look to economic theory and economists for help; consult newspapers and magazines to see how closely your own hypothesis corresponds to the opinions of professional economic forecasters. Develop an argument, which you will support and check carefully for errors in logic—for example, what factors cause what. Then, present your forecast and evidence precisely, logically, and having considered a range of perspectives. Later, you will likely want to evaluate your forecast against what actually happened. Because forecasting is an extremely difficult task, consider yourself successful if you predicted the same direction of change.

Economics as a Second Language

Because economics involves an extensive vocabulary of specialized terms, it is closely linked to the way we use language. In each chapter, you will find passages highlighted. These passages help you learn the proper use of economics as a “second language” by exploring the following issues:

- **Precise definitions.** With a few exceptions, economic terms—such as “rent” and “aggregate demand”—have precise definitions. But some terms—such as “income equity” and “full employment”—have more than one possible interpretation. When using such potentially ambiguous terms, specify how you are using them.
- **Special meanings.** Terms may have a different meaning in economics than they do in everyday language. For example, in economics the term “investment” typically refers to business purchases of materials, equipment, and buildings rather than to purchases of financial assets, such as stocks and bonds.
- **Descriptive images.** Sometimes economic terms provide a way of describing abstract concepts in a concrete way. Such descriptive images can clarify an argument’s underlying logic. For example, the view that education is acquired by individuals to raise their income-earning potential is neatly summarized by the term “human capital.”
- **Loaded language.** Descriptive images are not the only way to give language suggestive power. Loaded language, which appears straightforward but subtly colours economic arguments, is common in economics. For example, supporters of a market economy often call it a “free market system,” to emphasize the freedom of choice that comes with private markets. Critics of a market economy usually refer to it instead as “capitalism,” since this suggests the power of owners of capital in this economic system. Loaded language helps reveal a writer’s implicit assumptions. Though loaded language can be misused, arguments that contain this language are not necessarily wrong.

Understanding

School Edition

Economics

A Contemporary Perspective

What are Analytical Statements?

Analytical statements are **objective statements** that can be tested, amended or rejected by referring to the available **evidence**. Analytical economics deals with **objective explanation** and the testing and rejection of theories.

What are Normative Statements?

A **value judgement** is a subjective statement of opinion rather than a fact that can be tested by looking at the available evidence. Normative statements are **subjective statements** – i.e. they carry **value judgments**.

Decide if each statement is Analytical or Normative by placing an “A” or “N” beside each statement.

- The retirement age should be raised to 70 to combat the effects of our ageing population and future labour shortages.
- A fall in incomes will lead to a rise in demand for generic-label supermarket foods.
- The congestion charge for drivers of gas-guzzling cars should increase to \$100.
- If the government raises the tax on beer, this will lead to a fall in profits of the brewers.
- Pollution is the most serious economic problem.
- The rising price of crude oil on world markets will lead to an increase in cycling to work.
- Unemployment is more harmful than inflation.
- Resources are best allocated by allowing the market to work freely.
- A reduction in income tax will improve the incentives of the unemployed to find work.
- The government should increase the minimum wage to \$15 per hour to reduce poverty.
- A rise in average temperatures will increase the demand for sun screen products.
- Higher interest rates will reduce house prices.
- The government is right to introduce a ban on smoking in public places.
- The government should enforce minimum prices for cannabis sold in a bid to control consumption.