

## LOGIC FALLACIES WORKSHEET

Correct grammatical structure is not an end in itself but a vehicle for communicating clearly. Clear and purposeful writing is fundamentally a reflection of logical thinking. Vague and undirected writing reflects vague and undirected thinking. The treatment of logic that follows is brief and simple if you follow along. Only those matters that have an obvious relationship to the writing process are discussed.

### I. **DEFINITION**

Define terms whose exact meaning is essential to clear and logical communication.

#### A. **Word Substitution** (by synonym)

To define education as learning or freedom as liberty serves little purpose. But many times concrete terms can be quite satisfactorily defined merely by offering a synonym which the reader is likely to know. This particularly true with technical or other little known terms. An appositive construction is often useful for this.

Ex. *the cardiac muscle, or principal heart muscle . . .*  
*the meekrat, or South African mongoose . . .*  
*a cannikin, or old New England word for wooden bucket . . .*

#### B. **Formal or logical definition** (definition by its parts)

Logic is the basis of all careful and precise definition. The steps in constructing a sound formal definition are as follows:

1. **Classification** - In defining a term, first put it into the class of objects (genus) to which it belongs.

Ex. *a saw is a cutting tool*  
*a carpet is a floor covering*

In general, the narrower the classification, the clearer the eventual definition.

Ex. *Not: a rifle is a weapon*  
Ex. *But: a rifle is a firearm*

Although *weapon* is a legitimate classification for *rifle*, for purposes of definition it includes more than necessary. Make sure the genus is not too broad.

2. **Differentiation** - Next, distinguish it from other objects in its class because each class has several different objects. W / r / t *cutting tool*, think of all the different cutting tools out there. How does your particular cutting tool differ?

Ex. *a saw is a cutting tool*                      *with a thin, flat blade and a series of teeth on the edge*  
*a carpet is a floor covering*                      *of woven or felted fabric, usually tacked to the floor*