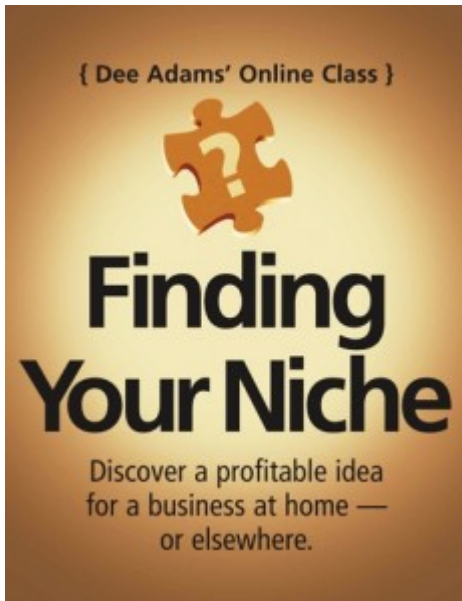


Thinking Critically & Solving Problems



Logic in the Real World

The ability to evaluate arguments, claims, or situations and solve problems in one's business and personal life is the most valuable skill that a potential entrepreneur can possess.

I grew interested in the issue once I realized my understanding of the subject was superficial. Furthermore, I found most of the online explanations were lengthy but lacked clear how-to instructions.

Then I discovered that I was required to take a class in the matter. The material below is an excerpt from two of my homework assignments.

Note: At times, the material seemed like one gigantic hairy, numerical tongue twister, but the class proved to be one of the most useful I've ever taken.

Excerpts

I am not hungry

~H

I am tired.

T

I am not tired.

~T

I am both hungry and tired.

H&T

I am hungry or I am tired.

HvT

It is not both the case that I am hungry and tired.

~ (H&T)

Generalizing from Incomplete Information

F 1 is a G

F2 is a G

F3 is a G

n) Fn is a G

n+ 1) Thus, all F's are G's

1) Job Hunter #1 is a person who finds a job.

2) Job Hunter #2 is a person who finds a job.

3) Job Hunter #3 is a person who finds a job.

4) Thus, all job hunters find good jobs.

Analysis: The conclusion is a generalization based on the results of only three job hunters. Without a proper sample reflecting the employment outcome of the job hunting population, the conclusion is not supported by proper evidence and is therefore invalid.

Furthermore, depending on the location, industry, gender, and other socioeconomic factors, not all job hunters may find employment.

Overlooking Alternatives

1) E1 correlates with E2

2) Thus, E1 causes E2

1) A windy day correlates with downed trees.

2) Thus, windy days cause downed trees.

Analysis: The argument does not take into account that other factors may have weakened the roots of the trees or that the wind was merely a catalyst and not the actual cause. The claim does not present a definitive link or offer reliable data on the amount of wind force necessary to bring down trees.

Reference

<http://www.sjsu.edu/depts/itl/>