Levels of cognitive objectives

1. **Knowledge**: Simple remembering, by recall or recognition of specific facts, terminology, criteria, methods, principles, generalizations or theories. Learner needs simply to select the correct material from memory
   - memorize
   - list, name, define, repeat, record, recall

2. **Comprehension**: Simple understanding demonstrated by means of paraphrasing, summarizing, interpreting, or inferring simple conclusions. Learner must put simple knowledge in a different form.
   - Express in everyday language; Discuss implications of ideas; Translate among the three languages (words ↔ math ↔ pictures); Interrelate concepts
   - Relate one idea to another without having the professor or the text make the connection
   - report, locate, restate, discuss, describe, explain, express, identify, calculate

3. **Application**: Using general knowledge in new, specific and concrete situations (not previously learned).
   - Situation is unique or different; problems are complex and confusing; requires choosing among solutions
   - use, show, apply, interpret, decide, respond to, illustrate, demonstrate, dramatize

4. **Analysis**: Breaking down information into its separate parts, explicating the relationship between parts and/or the overall organizational structure. Learner divides complex whole into parts in order to better understand.
   - solve, relate, diagram, appraise, analyze, examine, differentiate, distinguish, calculate

5. **Synthesis**: Combining of two or more elements or parts into a new (for the learner) form or whole. Learner creates a “new” communication, plan, abstract relationship, etc.
   - Create theories, models, paradigms, etc.
   - plan, design, create, compose, propose, prepare, construct, formulate, organize, modify

6. **Evaluation**: Judging information or knowledge against some appropriate criteria either internal to the material or an external standard.
   - value, revise, judge, assess, compare, select, appraise, evaluate, measure

- Critical thinking begins at level 3.
- Traditionally, undergraduate only covered levels 1 and 2. Movement toward 1 – 4.

**Examples:**
Level 1: List four characteristics of market structure
Level 2: Compare and contrast the different market structures (ie. similarities and differences)
Level 3: Given a scenario (not presented before), describe how the event impacts market equilibrium and illustrate your answer.
Level 4: Find a newspaper article that describes a demand/supply scenario. Using the article discuss what happens to the market equilibrium and illustrate your answer.

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