

Skill development:

1. Practice with a thinking skill that is needed throughout the problem solving process.
2. Analysis is a general *convergent* thinking skill consisting of classification, identifying series and sequences, checking for consistency and reasoning (or critical thinking). The *divergent* thinking skill, creativity, is explored in MPS 7.
3. The resulting classification, and likely the procedures used, depend on the purpose or goal for the classification. In this unit, the impact of goal setting will be felt. This extends the skills developed in MPS 3.
4. Skill in creating criteria was initially developed in MPS 3. Here this is extended and used as one of the basic skills needed for classification.
5. The ability to identify faults in classifications, called faulty coordination and faulty subordination, is developed. This is practical application of criteria to make an assessment.
6. Numerous tabular, symbolic, pictorial representations have been developed to aid in classification. Practice will be given for some of these.
7. Skill is developed in selecting a form of representation that is most likely to be effective.
8. Analysis (classification) is a basic skill needed for Analysis (reasoning), MPS 30.

Applicability: High school and university students, educators, people in business and industry and people in the community .

Time required: 2 hours.

Brief description: The fundamental principles of classification are given: use a single basis of classification; no faulty subordination or faulty coordination; no single subpoints. Various tables, diagrams and techniques are available to help classify information. These alternatives are presented: truth tables, force field analysis, Polya plots, concept maps, Gowin Vee, fishbone, trees, Pareto plots, column and row elimination, CPM, classification diagrams. Some practice is given in applying some of these. Participants are encouraged to become fluent in all techniques. Particular attention is paid to outlining and plans for written formal communications.

Prerequisites: none.

Recommended: an early unit. Relatively independent of sequencing. To be distinguished from MPS 13, Analysis: consistency; MPS 21, Analysis: relationships and MPS 30, Analysis: reasoning

Experience with this workshop: occasionally for educators. Given about 50 times for students.

Discipline: independent.