Thinking About The Equalizer

1. Foundational		Transformational

Information, Ideas, Materials, Applications

- Close to text or experience
- Expert idea and/or skill to similar or familiar setting
- Use key idea/skill alone

- Fundamental skills and knowledge emphasized
- Fewer permutations of skills/ideas

- Removed from text or experience
- Export idea and/or skill to unexpected or unfamiliar setting
- Use Key idea/skill with unrelated ideas/skills

- Use but move beyond fundamental skills and knowledge
- More permutation of skills/ideas

2. Concrete		Abstract

Representations, Ideas, Applications, Materials

- Hold in hands/hands-on
- Tangible
- Literal
- Physical manipulation
- Event based
- Event to principle
- Demonstrated/explained

- Hold in mind/minds on
- Intangible
- Symbolic/metaphorical
- Mental manipulation
- Idea based
- Principle without event
- Not demonstrated/explained

3. Simple		Complex

Resources, Research, Issues, Problems, Skills, Goals

- Use idea or skill being taught

- Work with no one or few abstractions
- Emphasizes appropriateness
- Requires relatively less originality
- More common vocabulary
- More accessible readability

- Combine idea or skill being taught with those previously taught
- Work with multiple abstractions

- Emphasizes elegance
- Requires relatively more originality
- More advanced vocabulary
- More advanced readability

4. Fewer Facts		Multi-Facets

Disciplinary Connections, Directions, Stages of Development

- Fewer parts
- Fewer steps
- Fewer stages

- More parts
- More steps
- More stages

5. Smaller Leap		Greater Leap

Applications, Insight Transfer

- Few unknowns
- Relative comfort with elements
- Less need to change familiar elements
- Requires less flexible thought
- Few gaps in required knowledge
- More evolutionary

- Many unknowns
- Relative unfamiliarity with many elements
- More need to change unfamiliar elements
- Requires more flexible thought
- Significant gaps in required knowledge
- More revolutionary

6. More Structured		More Open

Solutions, Decisions, Approaches

- More directions/more precise directions
- More modeling
- Relatively less student choice

- Fewer directions
- Less modeling
- Relatively more student choice

7. Clearly Define Problems		Fuzzy Problems

In Process, In Research, In Products

- Few unknowns
- More algorithmic
- Narrow range of acceptable responses or approaches
- Only relevant dated provided
- Problem specified

- More unknowns
- More heuristic
- Wider range of acceptable responses or approaches
- Extraneous data provided
- Problem unspecified/ambiguous

8. Less Independence		Greater Independence

Planning, Designing, Monitoring

- More teacher/adult guidance/ monitoring on:
    * Problem identification
    * Goal setting
    * Establishing timelines
    * Following timelines
    * Securing resources
    * Use of resources
    * Criteria for success
    * Formulations of a product
    * Evaluation
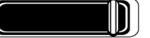- More teacher scaffolding
- Learning the skills of independence

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    * Problem identification
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    * Use of resources
    * Criteria for success
    * Formulations of a product
    * Evaluation
- Less teacher scaffolding
- Demonstrating the skills of independence

9. Slower		Quicker

Pace of Study, Pace of Thought

- More time to work
- More practice
- More teaching/re-teaching
- Process more systematically
- Probe breadth and depth

- Less time to work
- Less practice
- Less teaching/re-teaching
- Process more rapidly
- Hit the high points