**Chapter 14**

**Questioner**

**Algebraic Thinking: Generalizations, Patterns, and Functions**

**1) What misconceptions do students have regarding the equal sign? What do you think causes these misconceptions and how can our instruction clear them up?**

**2) There are many experiments that students can explore to see the functional relationships that exist between two variables. The book suggests gathering real data to engage a range of learners. What are some examples that you can think of? Example) How far will a matchbox car roll off a ramp, based on the height the ramp is raised?**

**3) Kaput lists five types of algebraic thinking. Rather than list each of these, describe algebraic thinking in a manner that encompasses Kaput’s main ideas and the spirit of the chapter.**

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| Knowledge | Susie, seven ducks want to play in two ponds, one big and one small. What are the different ways that the seven ducks could play in the two ponds? |
| Comprehension | Can you explain to me how you came up with those answers? |
| Application | Now, can you please draw me a picture representing your answers to me? |
| Analysis | Is there a different strategy that we could use to come up with the answer? |
| Synthesis | Do you know what the answer would be if there were 9 ducks wanting to play in the pond? |
| Evaluation | Describe the change in these two different problems? Why do you think there are more possibilities? |

Blooms Taxonomy