Figure 7.4: Intrigue-Explain-Wonder Scenarios and Protocol

Scenario 1:

The birthday paradox is a probability concept. It states that if there are 23 people in a room, there is a more than 50 percent chance that two people will have the same birthday. It seems counterintuitive because the probability of having a birthday on any particular day is only 1/365.

Scenario 2:

If you shuffle a pack of cards properly, chances are that exact order has never been seen before in the whole history of the universe.

Scenario 3:

Suppose you're on a game show, and you're given the choice of three doors. Behind one door is a car; behind the others, goats. You pick a door, say number one. The host, who knows what's behind the doors, opens another door, say number three, which has a goat. He then says to you, "Do you want to pick door number two?" Is it to your advantage to switch your choice? Surprisingly, the answer is that it's better to switch!

Scenario 4:

Slime is made of polymers, which is kind of like spaghetti. How is this possible?

Intrigue-Explain-Wonder Protocol

- Why is this *intriguing*?

- How do you *explain* it?

- What does it make you *wonder* about now?