

## Dr. Irvin's Example of Everyday Reflective Thinking: The Slow Flushing Toilet



### i. a felt surprise/difficulty:

- a. I noticed that the new flapper I recently installed inside our bathroom toilet was not right. It would not flap shut fast enough, causing the toilet to double flush (and waste water)

### ii. location and definition [of the difficulty]

- a. Since it is a new flapper and the old flapper didn't have this problem, the cause of this problem is probably something to do with the installation of this flapper

### iii. suggestions of possible solutions/answers

1. it could be that I installed it wrong—the chain length with the handle arm might be wrong and causing the problem; perhaps the chain is getting caught under the flapper
2. it could be a problem with the flapper itself; something is causing it to float for too long and not close rapidly enough

### iv. develop reasoning on the bearings of the suggestion

(what reasoning and evidence/grounds is there for this interpretation?)

Theory 1—Chain Length: examining the chain, I saw that it indeed was too long but I didn't see it getting caught under the flapper. Not likely the problem.

Theory 2—the Flapper: observing the flapper itself it has a large under section that seems to be hollow. Further observation showed it had a little turn adjustment to make a hole going into the hollow part of the flapper bigger or smaller. Observing the flapper through multiple flushes, I could see it floating for too long. The flapper is likely the problem, but perhaps with the proper adjustment it would work right

### v. further observation and experiment leading to acceptance or rejection

Test theory 1: I adjusted the chain length, but it had no effect. It is rejected as the source of the problem.

Test theory 2: I tried different adjustments with the opening under the flapper, but the slow flush persisted. I confirm that the flapper is the source of the problem, but I do not find a way to make it work.

Solution: Get a new flapper (that does not have a hollow part underneath it).

