## Example: Relative Frequency and Willing at Wheel of Fortune?

(Source. "Teaching Middle School Mathematics Activities, Materials and Problems. by Krulik and Rudnick. page 161. Allyn \& Bacon, Boston. 2000.)

In your class it would be fun to play a round of Wheel of Fortune. Then talk to the class about the best way to guess the letters if you go first to increase your chances of getting a letter in the words. Have the students guess (hypothesize) which letters appear most frequently in words. Write several of their answers on the board. Then talk about a strategy for trying to find out which letters would have the best chance of appearing most often in a phrase. Have each student take a paragraph from a newspaper or their math book or any other course and practice tallying the relative frequency for each letter in the alphabet. Record tallies below.

| Letter | Place a tally mark here each time the letter occurs in your paragraph | Total Number of Tallies for the given letter |
| :---: | :---: | :---: |
| A |  |  |
| B |  |  |
| C |  |  |
| D |  |  |
| E |  |  |
| F |  |  |
| G |  |  |
| H |  |  |
| I |  |  |
| J |  |  |
| K |  |  |
| L |  |  |
| M |  |  |
| N |  |  |
| 0 |  |  |
| P |  |  |
| Q |  |  |
| R |  |  |
| S |  |  |
| T |  |  |
| U |  |  |
| V |  |  |
| W |  |  |
| X |  |  |
| Y |  |  |
| Z |  |  |
|  | TOTAL (add the items in the right hand column) |  |

Combine the results for the entire class on the board. Determine which letters occurred more frequently. See if the hypotheses that the students formed before collecting the data were correct. You can talk about the relative frequency as the probability that such a letter would occur. Let the students record their strategy for selecting the letters when playing Wheel of Fortune. Then play another round of Wheel of Fortune and see if the strategy works.

