

## **Elements of a Productive, Purposeful, and Meaningful Mathematics Classroom**

### The Sound of Teachers:

1. Teachers supporting discourse
2. Teachers providing lesson summation/reflection/closure
3. Teachers engaging all students

### The Sound of Students:

4. Students justifying reasoning
5. Students analyzing the thinking of others
6. Students engaged in mathematizing

### The Sound of Students and Teachers:

7. Both students and teachers actively listening
8. Both students and teachers encouraging and modeling risk taking
9. Both students and teachers using mathematical vocabulary
10. Both students and teachers having fun learning mathematics