**How Much Data Do You Need to Identify a Pattern?**

**Purpose**

In this activity, students identify a relationship between the amount of data available and the ability to recognize a pattern.

**Skills Focus Predicting, Evaluating and Revising**

**Materials** stapled stack of papers

**Advance Prep**

Select a phrase that will be familiar to students. Draw a series of boxes on a sheet of paper to represent the letters of the phrase, leaving spaces between words. Make five copies of this sheet. Fill in two or three letters on the first copy. Add a few letters to each subsequent copy. Plan for two or three blanks on the fifth sheet. Give each student or group a stapled stack arranged in order of completeness with the least complete copy on top.

**Class Time** 10 minutes

**Teaching Tips**

Before distributing the stacks, explain to students that they should not look ahead in the stack. For the activity to be successful, they must work with only one sheet at a time.

**Expected Outcome**

Students’ predictions will become increasingly accurate as they progress through the stack.

**Think About It**

1. There was more information.
2. Increasing the number of letters made it easier to predict the phrase.
3. In the suggested situations, the data must be limited to start. (If students are having trouble thinking of an example, ask what they can tell about a movie from a trailer or about a novel after reading one.

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**Procedure**

1. Your teacher will give you a stapled stack of paper. Look at the squares on the top sheet of paper. Try to figure out what familiar phrase you would see if all the squares were filled in. Record your prediction on the sheet.
2. Remove the top sheet and look at the second sheet. Again, try to figure out what letters belong in the squares. Record your prediction.
3. Continue this process until you have looked at all the sheets in the stack.

**Think About It**

1. How did the information on the sheets change as you moved from the top to the bottom of the stack?
2. How did the number of letters provided affect your ability to predict the phrase?
3. Describe another situation in which having more data makes it easier to recognize a pattern.

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