Train Your Brain

Can you train your brain to ignore something? Today’s challenge—called a Stroop test—plays a little trick on you. But maybe you’re too quick for the trick!

Get what you need.
- 2 blank 4x4 grids (to make a grid, copy Figure 1)
- Crayons, pens, or markers—at least four different colors
- Ruler
- Stopwatch or clock

Part 1: The words match the colors

1. Fill in one grid. Choose a marker. Use it to write the name of its color in one of the grid boxes. For example, if you chose a red marker, you’d write the word RED in one of the boxes. Fill in the grid this way, using at least four different colors.

2. Play the game. Have one person be the Timer and one be the Reader. When the Timer says, “Go,” the Reader reads the word in each box out loud. If you make a mistake, read the word again correctly. On the chart below, record how many seconds it takes the Reader to read the 16 words correctly.


<table>
<thead>
<tr>
<th>Time in Part 1</th>
<th>Reader 1</th>
<th>Reader 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prediction for Part 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time in Part 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Part 2: Words don’t match the colors

4. Fill in the other grid. Now, write the name of a color that’s different from the ink color. So, if you chose a red marker, you’d write BLUE, GREEN, or YELLOW, etc. in a box. Fill in the grid this way, using at least four different colors.

5. Make a prediction. How long will it take you to name the ink colors instead of reading the words? Write your prediction in the table below.

6. Play again. Play as in Step 2. But this time, the Reader says the color of the ink used in each box. For example, if you wrote the word BLUE using a red marker, you’d say “RED.” Record how long it takes the Reader to say all 16 colors correctly. Switch roles and play again.

Chew on This

In Part 2, your brain got two signals from your eyes—the words and the ink color. Reading is very automatic for most people. But naming a color isn’t. To name the color, your mind has to ignore its first reaction—what a word says. But ignoring something can take real mental effort! In fact, when you do something that takes a lot of concentration—like a Stroop test, your brain can get tired. This makes it hard to stay focused.

Want to do better? Scientists say giving yourself a break before trying again helps. Taking a quick walk outside is a good way to rest the parts of the brain you use for concentrating.
**Dig Deeper**

- Does practice make perfect, or do you do better by giving yourself a relaxing break? Or does doing BOTH give the best results? See which approach improves your time the most.

- Try testing at different times of the day, when people are more likely to be alert or tired.

- What if it’s hard to read the words? Do Part 2 again. But this time, turn the grid upside down and try testing again.

- Is it easier if the words aren’t colors? Make a new grid using non-color words, such as “ball” or “cup.”

- Like brainteasers? Get the Reaction Time challenge from the ZOOM Web site at pbskids.org/zoom/activities.

---

**News flash:** My brain is amazing! No, I don’t have time to actually test it. Just take my word for it. I can identify 47 different smells from 100 yards away with my eyes closed. Oh look—a squirrel outside! Let’s get him! Oops, sorry. I got a little distracted. Maybe you can help me stay focused.

---

**Watch FETCH! on PBS KIDS GO! (check local listings) and visit the FETCH! Web site at pbskids.org/for.children.**

© 2007 WGBH Educational Foundation. All rights reserved. FETCH!, the characters, and related indicia are trademarks of the WGBH Educational Foundation. FETCH! is produced by WGBH Boston. Major funding for FETCH! is provided by the National Science Foundation and public television viewers. Corporate funding is provided by Arby’s and Greendog®. This FETCH! material is based upon work supported by the National Science Foundation under Grant No. 0610406. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation. All third-party trademarks are the property of their respective owners. Used with permission.