Description of Project

- Dr. Elizabeth Vaughn-Neely (Union) and Dr. Marjorie Reed (Oregon State)
- Meaning suppression research
- Research will be conducted on middle school students
To Do:

- Create three tests
  - Attentional Control Personality Scale
  - Multi-Media Comprehension Battery
  - Reaction Time Test
- Test used for adults created with MEL
- Set up database
Implementation

- Attentional Control Scale
  - Easiest part
  - Use ColdFusion to randomly present all questions
  - Use JavaScript for validation
Implementation

- Multi-Media Comprehension Battery
  - Stories must be presented line by line displayed at approximately 121 wpm
  - Write a java applet
  - Use javax.Swing.Timer class for timing

- One disadvantage to using applet
Implementation

- Reaction Time Test
  - Most complex to implement
  - Very specific timing issues
  - Need millisecond timing accuracy
  - Sentence displayed word by word
  - Used javax.Swing.Timer again
## Reaction Time Test

<table>
<thead>
<tr>
<th>Display</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>500</td>
</tr>
<tr>
<td>“ ”</td>
<td>500</td>
</tr>
<tr>
<td>She</td>
<td>351</td>
</tr>
<tr>
<td>put</td>
<td>351</td>
</tr>
<tr>
<td>on</td>
<td>334</td>
</tr>
<tr>
<td>the</td>
<td>351</td>
</tr>
<tr>
<td>ring.</td>
<td>368</td>
</tr>
<tr>
<td>“ ”</td>
<td>250 OR 750</td>
</tr>
<tr>
<td>“ ”</td>
<td>750 OR 1250</td>
</tr>
</tbody>
</table>

She put the ring. Stop timer; wait for answer.
Reaction Time Test

- Used a queue
  - wordq to put words in
  - timeq to put times in
- Used Timer.setDelay() to set timing
- Use method getWhen() of both ActionEvent and KeyEvent(InputEvent) classes
How do I...?

- How do I actually get the sentences and stories?
- Restrictions on applets
- Use JDBC?
  - 2-tier approach
  - 3-tier approach
- HTTP Tunneling
  - Set up a java.net.URLConnection to get input stream of sentences and stories
How do I...?

- Without JDBC, how do I write results from Reaction Time test to database
- Use `getAppletContext().showDocument(url)`
What I Learned

- Better understanding of Java
- To have more confidence in my abilities
What I Would Do Differently and What is Left to Do

- Ask more questions
- Back-end for Dr. Vaughn-Neely
- Randomize Sentences
- Make it compatible with Netscape
Tools I used

- ColdFusion Studio 4.5
- JBuilder8 Personal
- Sun JDK 1.4.1
- Microsoft Access
References

- Core Servlets and Java Server Pages. Hall, Marty.
Demonstration

- Go to Test!