Self-assessment in autonomous computer-aided second language writing  
*By Kirk Sullivan and Eva Lindgren*

**Objective**

~ To promote autonomous learning to improve second language writing by using a computer program called “JEdit”

~ The experiment examines JEdit from two perspectives:
  1. Quantitative: Statistical results from JEdit
  2. Qualitative: Interview with participants (L2 learners) after using JEdit

**Method**

*Subjects*: 4 adult English learners (3 Swedish, 1 Brazilian)

*Tool*: JEdit (http://www.nada.kth.se/iplab/trac-it/JEdit.html)

*Major features:*
  ~ Writing in JEdit is very similar to writing in other word processors
  ~ Time usage in each action (keystroke & mouse movements) is being monitored

*Three components:*
  1. Log-file: to record a writing session; it contains huge amount of data about move activities occurred in chronological order. (P.259)
  2. Trace-it: to replay the entire writing process; it permits all revisions to be viewed, either revision by revision or revision based on their physical position. (P.259)
  3. S-notation: all revisions (insertions, deletions, moves) are reflected at their physical position explicitly by symbols. (P.259)

**Procedures**

1. Log on JEdit

2. Subjects are required to write 1 of the 4 given essay topics
   - No prerequisite knowledge needed
   - Guidelines: Suggested time limit (30 min.) & suggested text length (one A4 page)
   - Focus: Text quality

3. Participants discuss the revision of their final written product with a peer using “Trace-it”

4. Interviews between researchers & participants
   - Opinions / Comments on JEdit, particularly “trace-it”
Findings

1. Quantitative: Statistical Results Summary (Table 1, P.261)

   **General Patterns:**
   - Writers have short pauses frequently between words
   - Pauses between sentences, paragraphs < pauses between words

   **Writers’ Specific Patterns:**

<table>
<thead>
<tr>
<th>Name of Participants</th>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camilla (Swedish)</td>
<td>Fast, expressive</td>
<td><em>Interview: poor typing skill</em></td>
<td>- least writing &amp; pausing time</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- lower quality</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- only surface-based revisions¹</td>
</tr>
<tr>
<td>Julia (Swedish)</td>
<td>~</td>
<td>Spelling,</td>
<td>- most pauses</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Interview: “get stuck”</em></td>
<td>- lower quality</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- only surface-based revisions</td>
</tr>
<tr>
<td>Lena (Swedish)</td>
<td>Highly computer-literate</td>
<td><em>Interview: “get stuck”</em></td>
<td>- higher quality</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- twice as much surface-based revisions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- some text-based revisions²</td>
</tr>
<tr>
<td>Maria (Brazilian)</td>
<td>Highly computer-literate</td>
<td>Non-Appropriate word choice</td>
<td>- longest writing time</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- higher quality</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- twice as much surface-based revisions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- some text-based revisions</td>
</tr>
</tbody>
</table>

   **Notes:**
   - ¹ Surface-based revision: A revision that does not bring new information to a text, or remove old information from a text. (Faigley & Witte, 1981)
   - ² Text-based revision: A revision which adds information to, or removes information from. (Faigley & Witte, 1981)

2. Qualitative:

   Participants’ Perception on JEdič:
   - enjoyable
   - provide useful information (Eg. Locate problems, aid L2 writing)
   - realize their extensive number of revisions
   - aware of their own writing habits

   **Conclusion**

   ~ JEdič identifies individual writing behaviors, needs and area for improvement
   ~ Learners can learn their writing strengths and weaknesses then make appropriate improvement
   ~ Possible to use JEdič in L2 writing classrooms
   ~ JEdič can assist promotion of life long L2 learning

   **Critiques**

   ~ suitable for all operating systems?
   ~ learners focus on their writing weaknesses only?