Does using assistive technology to support functional writing and reading lead to increased social participation and improve mood and quality of life?

Becky Moss, Jane Marshall, Celia Woolf and Katerina Hilari
Writing with assistive technology

Two mainstream software packages: Dragon NaturallySpeaking™ voice recognition software and ClaroRead™ reading support

10 people with aphasia,
10 one to one sessions
Own writing activity choice

Compensatory → independent narrative writing
Writing and social inclusion

‘Literacy is embedded in the activities of ordinary life .... It can gate-keep activities and be a prerequisite for them’

Barton 1991

Friendships more vulnerable than family relationships after stroke

Northcott & Hilari 2011

Smaller social networks than age-matched peers

Cruice, Worrall & Hickson 2006
Your Social Network

So close to it is **hard to imagine life without them**

Not quite that close but **still very important** to you

Not already mentioned but **close enough** to be in your network

For **each person**:

- Their **relationship** to you
- **How long** you have known them
- How **nearby** they live
- **How often** you see them or contact them
- How **satisfied** you are with **frequency** and **nature** of contact

Social network analysis, Antonucci & Akiyama 1987
## Individual social networks

<table>
<thead>
<tr>
<th></th>
<th>T2 pre-training</th>
<th>T3 post-training</th>
<th>T4 follow up 3 months later</th>
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<tbody>
<tr>
<td>Peter</td>
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<td>17</td>
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<td>Rohan</td>
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<td>Albert</td>
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<tr>
<td>Doreen</td>
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<tr>
<td>Simon</td>
<td>48</td>
<td>51</td>
<td>54</td>
</tr>
</tbody>
</table>
Social networks

Significant increase in overall size of group’s social networks post-training:

Friedman’s $\chi^2 (3) = 10.64$, $p = .005$
This is the most wonderful email I have ever received and rivals my two babies talking for the first time. I am so delighted this is working for you and I accept your invitation to having lunch together.

Hi Dad!
Lovely to hear from you. That was such a nice surprise to hear from you I got a bit emotional! So glad the software is working for you and I’m really so so so proud of you for what you’re doing.
Non-significant positive trends for mood and QOL

Mean score (SD):
T1: 3.67 (4.12)
T4: 1.78 (3.87)
Friedman’s $\chi^2$ (3) = 2.10, $p = .552$

Mean score (SD):
T1: 3.58 (0.71)
T4: 3.78 (0.71)
Friedman’s $\chi^2$ (3) = 4.66, $p = .199$
Qualitative evidence of improved mood/quality of life

‘So many words up here, I’m getting [crying]. It’s a new beginning for me, this is’
Doreen, training session 4

‘I had a hole in my life in terms of communicating and you’ve filled that void, and that’s why I’ve enjoyed it so much’
Albert, T3 interview

‘I wouldn’t be able to do anything like that these days unless there was the microphone. When I come here I am alive’
Peter, training session 7


