An evidence-based systematic review of the effectiveness of semantic feature analysis (SFA)

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Background:

- A growing body of evidence has demonstrated the effectiveness of SFA.\textsuperscript{1,2,3,4}

- SFA has been applied successfully with individuals with a variety of aphasia types.\textsuperscript{1,2,4}

- Improvement has been observed on trained words and some generalization to semantically related untrained words.\textsuperscript{1,3}

Aims:

a) To examine the different treatment areas where SFA has been applied.

b) To collate the evidence on the effectiveness of SFA with persons with aphasia.

Methods:

- Systematic literature review undertaken by two aphasia-specialist SLPs

- Search carried out on EBSCOhost platform, on datasets: Academic Search Complete, CINAHL Plus with Full Text, E-Journals, MEDLINE with Full Text, PsycINFO, ERIC and the Aphasia Treatment website of the Academy of Neurologic Communication Disorders. (August 2015)

- Inclusion criteria: a) published in English language

- Exclusion criteria: SFA combined with other treatment, as it was impossible to distinguish the effects of SFA.

- Evaluation of each study for methodological quality and assigned appropriate levels of evidence with Single Case Experimental Design (SCED).

- SCED: 11-point scale which evaluates the methodological quality of single case experimental studies.

Results:

18 single case experimental studies/series\textsuperscript{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20} were included in the review.

<table>
<thead>
<tr>
<th>Treatment Areas of SFA (N=18 studies)</th>
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<tr>
<td>Confrontation naming for nouns and verbs (N=9)</td>
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<tr>
<td>Discourse (N=2)</td>
</tr>
<tr>
<td>Everyday Conversation &amp; Functional Communication (N=1)</td>
</tr>
<tr>
<td>Group approach (N = 2)</td>
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<td>Bilingual aphasia (N=2)</td>
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Comparing SFA with other approaches (e.g. PCA) (N=2)

<table>
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<tr>
<th>Participant Characteristics (N=46)</th>
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<tr>
<td>Age</td>
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<tr>
<td>Time post onset</td>
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<tr>
<td>Gender</td>
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<tr>
<td>Aphasia Type</td>
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<td>Fluency</td>
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Summary of treatment outcomes

| N= 18 studies | N=46 participants |
|-----------------------------------------------------|
| N= 18 studies | Treated items improved | 16/18 | 39/46 |
| Maintenance of treatment effect | 14/18 | 29/46 |
| Generalization to untreated items | 7/18 | 14/46 |

Discussion:

Findings suggest that SFA is an effective intervention, with positive outcomes despite: a) variability of treatment procedures; dosage, duration; b) heterogeneity of participants and TPO.

Further research is warranted to examine candidacy and generalization effects.

References: