



# 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.<sup>[1,2,3,4,5,6]</sup>
- SFA has been applied successfully with individuals with a variety of aphasia types.<sup>[1,2,3,4]</sup>
- Improvement has been observed on trained words and some generalization to semantically related untrained words.<sup>[1,2]</sup>

## Aims:

- To examine the different treatment areas where SFA has been applied.
- To collate the evidence on the effectiveness of SFA with persons with aphasia.

## Methods:

- Systematic literature review was 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  
b) reporting research findings.
- 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 scale (SCED).<sup>[7]</sup>
- SCED: 11-point scale which evaluates the methodological quality of single case experimental studies.

## Results:

**18 single case experimental studies/series<sup>[1,2,3,4,5,6,8,9,10,11,12,13,14,15,16,17,18,20]</sup> were included in the review**

Treatment Areas of SFA (N=18 studies)
Confrontation naming for nouns and verbs (N=9)
Discourse (N=2)
Everyday Conversation & Functional Communication (N=1)
Group approach (N = 2)
Bilingual aphasia (N=2)
Comparing SFA with other approaches (e.g. PCA) (N=2)

N=18 studies	SCED scale
Range	8.0 – 11
Average Score	9.74

N=46 participants treated with SFA	
Treatment duration	4 to 12 weeks
Treatment intensity	2 or 3 60min sessions per week
Treatment amount	12 to 40 hours

Participant Characteristics (N=46)		
	Range	Mean
Age	24-87	56.09 (SD=15.59)
Time post onset	4-276 months	50 (SD=53.94)
Gender	22 male 24 female	
Aphasia Type	11 Broca /10 Anomic/ 3 Wernicke/1 Mixed/ 3 Transcortical – Motor/ 18 No reported	
Fluency	20 Non-Fluent/ 25 Fluent/ 1 No reported	

Summary of treatment outcomes		
	N= 18 studies	N=46 participants
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.